City of Morro Bay

City Council Agenda

Mission Statement
The City of Morro Bay is dedicated to the preservation and enhancement of the quality of life. The City shall be committed to this purpose and will provide a level of municipal service and safety consistent with and responsive to the needs of the public.

REGULAR MEETING
TUESDAY, DECEMBER 9, 2014
VETERANS MEMORIAL HALL - 6:00 P.M.
209 SURF ST., MORRO BAY, CA

ESTABLISH QUORUM AND CALL TO ORDER
MOMENT OF SILENCE
PLEDGE OF ALLEGIANCE
CLOSED SESSION REPORT
MAYOR & COUNCILMEMBERS' REPORTS, ANNOUNCEMENTS & PRESENTATIONS

PUBLIC PRESENTATIONS

- Update on the Progress of the LEAP Program

PUBLIC COMMENT - Members of the audience wishing to address the Council on City business matters not on the agenda may do so at this time. For those desiring to speak on items on the agenda, but unable to stay for the item, may also address the Council at this time.

To increase the effectiveness of the Public Comment Period, the following rules shall be followed:

- When recognized by the Mayor, please come forward to the podium and state your name and address for the record. Comments are to be limited to three minutes.
- All remarks shall be addressed to Council, as a whole, and not to any individual member thereof.
- The Council respectfully requests that you refrain from making slanderous, profane or personal remarks against any elected official, commission and/or staff.
- Please refrain from public displays or outbursts such as unsolicited applause, comments or cheering.
- Any disruptive activities that substantially interfere with the ability of the City Council to carry out its meeting will not be permitted and offenders will be requested to leave the meeting.
- Your participation in City Council meetings is welcome and your courtesy will be appreciated.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk, (805) 772-6205. Notification 72 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

A. CONSENT AGENDA

Unless an item is pulled for separate action by the City Council, the following actions are approved without discussion.

A-1 APPROVAL OF MINUTES FOR THE SPECIAL CITY COUNCIL MEETING HELD ON NOVEMBER 6, 2014; (ADMINISTRATION)

RECOMMENDATION: Approve as submitted.

A-2 APPROVAL OF MINUTES FOR THE SPECIAL CLOSED SESSION CITY COUNCIL MEETING HELD ON NOVEMBER 12, 2014; (ADMINISTRATION)

RECOMMENDATION: Approve as submitted.

A-3 APPROVAL OF MINUTES FOR THE CITY COUNCIL MEETING HELD ON NOVEMBER 12, 2014; (ADMINISTRATION)

RECOMMENDATION: Approve as submitted.

A-4 ADOPT PROCLAMATION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY DECLARING NOVEMBER, 2014 AS "NATIONAL HOSPICE MONTH"; (ADMINISTRATION)

RECOMMENDATION: Adopt Proclamation.

A-5 ADOPT RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA RECITING THE FACT OF THE GENERAL MUNICIPAL ELECTION HELD IN THE CITY OF MORRO BAY ON THE 4TH DAY OF NOVEMBER, 2014; DECLARING THE RESULTS THEREOF, AND SUCH OTHER MATTERS AS ARE PROVIDED BY LAW; (ADMINISTRATION)

RECOMMENDATION: Adopt Resolution 78-14.

A-6 STATUS REPORT OF A MAJOR MAINTENANCE & REPAIR PLAN (MMRP) FOR THE EXISTING WASTEWATER TREATMENT PLANT; (PUBLIC SERVICES)

RECOMMENDATION: Receive and file.

A-7 REVIEW AND ADOPT DRAFT FUNDING RECOMMENDATIONS FOR THE 2015 COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM; (PUBLIC SERVICES)

RECOMMENDATION: Adopt draft funding recommendations for the 2015 Community Development Block Grant (CDBG) funds and forward recommendations to the San Luis Obispo County Board of Supervisors for inclusion with the other draft funding requests from the Urban County Consortium.

A-8 APPROVAL OF AMENDMENT #1 TO CONTRACT SERVICES AGREEMENT WITH ALESHIRE & WYNDER, LLP FOR CITY ATTORNEY SERVICES; (ADMINISTRATION)

RECOMMENDATION: Approve Amendment #1 as presented.

A-9 APPROVAL OF AN AMENDMENT TO THE CONTRACT WITH DAVID BUCKINGHAM FOR SERVICES AS THE CITY MANAGER; (CITY ATTORNEY)

RECOMMENDATION: Approve the amendment to the contract with David Buckingham, City Manager, and authorize the Mayor to sign the contract on behalf of the City.

A-10 ANNUAL REPORT ON UNFUNDED LIABILITIES; (ADMINISTRATIVE SERVICES)

RECOMMENDATION: Receive and file.

A-11 AMENDING RESOLUTION NO. 42-14, "ADOPTING THE 2014/15 FISCAL YEAR OPERATING BUDGETS," AND ADOPTION OF RESOLUTION NO. 79-14, REVISING SECTION 6 TO READ "CITY COUNCIL APPROVAL IS REQUIRED FOR ANY PROPOSED INCREASE TO THE NUMBER OF PERS BENEFITTED BUDGETED POSITIONS HIRED"; (ADMINISTRATIVE SERVICES)

RECOMMENDATION: Adopt Resolution 79-14, amending Section 6. of Resolution No. 42-14 to read "City Council approval is required for any proposed increase to the number of PERS benefitted budgeted positions hired."

A-12 APPROVAL OF AMENDED BUSINESS LICENSE TAX RATE SCHEDULE REGARDING BUSINESS LICENSES; (ADMINISTRATIVE SERVICES)

RECOMMENDATION: Accept the proposed business license tax rate schedule for fiscal year 2014/15.

A-13 AUTHORIZATION TO AWARD CONTRACT FOR PROJECT NO. MB-2013-S2: MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT; (PUBLIC SERVICES)

RECOMMENDATION: Award the contract for the Morro Creek Multi-Use Trail and Bridge Project to CalPortland Construction of Santa Maria, CA in the amount of $1,184,654.

B. PUBLIC HEARINGS

B-1 A00-018; REVIEW OF AMENDMENTS TO THE GENERAL PLAN AND LOCAL COASTAL PLAN NECESSARY TO IMPLEMENT STATE-MANDATED DENSITY BONUSES IN RESIDENTIAL LAND USE DISTRICTS; (PUBLIC SERVICES)

RECOMMENDATION: Adopt Resolutions 80-14 and 81-14 approving amendments to both the General Plan and Local Coastal Plan related to Density Bonus.

C. UNFINISHED BUSINESS / SECOND READING AND ADOPTION OF ORDINANCES

C-1 ADOPTION OF ORDINANCE NO. 588 AMENDING SECTION 15.04.150 OF THE MORRO BAY MUNICIPAL CODE RELATING TO COMMERCIAL FISHING VESSEL SLIP QUALIFICATIONS; (HARBOR)

RECOMMENDATION: Adopt Ordinance No. 588 after reading the title only and waiving further reading.

C-2 REQUEST FOR AUTHORIZATION TO HOLD STUDY SESSIONS REAFFIRMING, AND AS REQUIRED, REPRIORITIZING THE CITY'S 2013-2015 GOALS AND EXTENDING THEM TO JULY 2016; (ADMINISTRATION)

RECOMMENDATION: Hold two 1-hour study sessions in January 2015 to reaffirm and reprioritize our current 2013-2015 City Goals while also identifying key program elements under each category for 2015-2016.

C-3 ADOPTION OF A RESOLUTION CONSENTING TO THE INCLUSION OF THE CITY OF MORRO BAY WITHIN THE PROPOSED SAN LUIS OBISPO COUNTY TOURISM MARKETING DISTRICT (SLOCTMD); (ADMINISTRATION)

RECOMMENDATION: Adopt Resolution authorizing Morro Bay to join the SLOCTMD

C-4 REVIEW OF FINAL REPORT FOR NEW WATER RECLAMATION FACILITY PROJECT COMPARATIVE SITE ANALYSIS: REGIONAL CMC FACILITY VS. RANCHO COLINA, INCLUDING NEW INFORMATION REGARDING COST AND DESIGN BASED ON CAROLLO ENGINEERS' DETAILED EVALUATION OF THE CMC SITE AND BY MKN ASSOCIATES FOR THE RANCHO COLINA SITE; BY JOHN F RICKENBACH CONSULTING WITH THE ADOPTION OF RESOLUTION 77-14 STATING THE CITY'S PREFERENCE FOR NEW WRF SITE LOCATION; (PUBLIC SERVICES)

RECOMMENDATION: Review the report, including new information from Carollo, and MKN and WRFCAC recommendations, take public comment and make the final site preference selection to begin the process to locate the new WRF at the Rancho Colina site by adopting Resolution 77-14.

D. NEW BUSINESS

D-1 INTRODUCTION AND FIRST READING OF ORDINANCE NO. 591 - "AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORRO BAY AMENDING SECTION 3.40.060 OF THE MORRO BAY MUNICIPAL CODE REGARDING THE CITY'S RECOVERY OF COSTS RELATING TO DRIVING, BOATING OR FLYING INCIDENTS WHILE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL"; (CITY ATTORNEY)

RECOMMENDATION: Take public testimony, move to waive reading of Ordinance 591 in its entirety and introduce for first reading by number and title only, Ordinance No. 591.

E. COUNCIL DECLARATION OF FUTURE AGENDA ITEMS

F. ADJOURNMENT

THIS AGENDA IS SUBJECT TO AMENDMENT UP TO 72 HOURS PRIOR TO THE DATE AND TIME SET FOR THE MEETING. PLEASE REFER TO THE AGENDA POSTED AT CITY HALL FOR ANY REVISIONS OR CALL THE CLERK'S OFFICE AT 772-6205 FOR FURTHER INFORMATION.

MATERIALS RELATED TO AN ITEM ON THIS AGENDA SUBMITTED TO THE CITY COUNCIL AFTER DISTRIBUTION OF THE AGENDA PACKET ARE AVAILABLE FOR PUBLIC INSPECTION AT CITY HALL LOCATED AT 595 HARBOR STREET; MORRO BAY LIBRARY LOCATED AT 625 HARBOR STREET; AND MILL'S COPY CENTER LOCATED AT 495 MORRO BAY BOULEVARD DURING NORMAL BUSINESS HOURS.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN A CITY MEETING, PLEASE CONTACT THE CITY CLERK'S OFFICE AT LEAST 24 HOURS PRIOR TO THE MEETING TO INSURE THAT REASONABLE ARRANGEMENTS CAN BE MADE TO PROVIDE ACCESSIBILITY TO THE MEETING.

AGENDA NO: A-1

MEETING DATE: December 9, 2014

MINUTES - MORRO BAY CITY COUNCIL
SPECIAL MEETING – NOVEMBER 6, 2014
MORRO BAY VETERAN'S HALL – 5:00 P.M.

PRESENT:	Jamie Irons	Mayor
	Christine Johnson	Councilmember
	George Leage	Councilmember
	Noah Smukler	Councilmember
STAFF:	David Buckingham	City Manager
	Joe Pannone	City Attorney
	Jamie Boucher	City Clerk
	Susan Slayton	Administrative Services Director

ESTABLISH QUORUM AND CALL TO ORDER

PUBLIC COMMENT RE: ITEMS ON THE AGENDA

City Attorney Joe Pannone spoke to the issue of the music industry/café musicians. In the Business and Professions Code 16000.5, Café musicians are defined as any person who provides musical entertainment somewhere where food is served for free or served for pay. The language of the section prohibits a city from charging a regulatory business fee. The difference between regulatory business licenses and revenue generating business licenses are significant. In our Municipal Code, our taxes are for revenue generating purposes.

City Manager Dave Buckingham said we may not regulate a café musician. We do have the authority to tax such businesses to generate revenue. That said, the City has no intention of using the business license to tax café musicians as separate businesses.

SPECIAL MEETING AGENDA ITEM:

I. DISCUSSION OF AND DIRECTION FOR A REVIEW AND POSSIBLE AMENDMENTS OF THE MORRO BAY MUNICIPAL CODE RELATING TO BUSINESS LICENSES

City Manager Dave Buckingham presented the staff report via power point. He hopes to receive Council direction to conduct a 6-7 month review of Morro Bay business license requirements with the hopes of completing the review so that any changes to policy or procedure are adopted by the end of the 2014-15 fiscal year. Consideration will be given to the municipal code, fee schedule, policy, procedure, customer service and public communication. It is staff's hope to maintain revenue neutrality. Staff will lean toward the system that is easiest to manage for both businesses and the City. There will be the opportunity to modify the existing code, use a better code or write a brand new code. Staff will look for appropriate technology based solutions wherever appropriate. Included in the process will be stakeholders to include the Chamber, Merchant's Association, residents, and professional advisors. Staff hopes to address low revenue businesses, independent contractors working at the same location as other business license

holders, businesses that sell on consignment, businesses that rent sales space in another licensed business, artists (hobbyists and vocational), itinerant (one time sales), café musicians, home-based vocational businesses, multiple licensing requirements for LLC's, and long term rentals. Staff will also determine whether or not an outside consultant service is necessary for this endeavor.

The public comment period for Item I was opened.

Billy Fapiano stated that we didn't mention cabaret mimes in our discussions, please take note of that. He hoped we would look at using a tiered way of working on a fee structure. He was also concerned about dance instructors, yoga instructors, musicians and the like. He also hoped we would look at placing a moratorium on the back fees as people seem more concerned about the retroactive fees.

Collette Came owns an alarm company in Morro Bay. She has to carry a license in every City with most being charged via a base fee. The bulk of her permits are in the $30-60 range but Morro Bay's is $244, why are we so high? She would like us to think about those businesses who have to carry licenses all over the place. She also wasn't impressed with MAS, they weren't friendly and it felt they were being punitive.

Debbie McNair stated that Morro Bay's greatest treasure is the people who live and work to put Morro Bay on the map. To impose exorbitant license fees makes it so that businesses have to take their talents elsewhere. She read the City's Mission statement out loud and asked the Council to take those words into consideration. When people are over assessed, it directly affects their quality of life. She believes the $32 fee would be an appropriate solution. She also asked we consider an exemption for those over 60 years old and/or those with a disability.

Eddie Costco is a new Morro Bay resident and has been a hobby artist his whole life. He thanked everybody for revisiting the ordinance and asked that we think about exemptions for those not making money.

The public comment period for Item I was closed.

Councilmember Smukler did research and had a hard time finding exemption options in other cities. He did find one that seemed interesting and asked staff to take a look at San Jose who looks at the poverty level based on what the US Department of Health and Human Services establishes on an annual basis. He encouraged people to stay in tune with this issue throughout the year via organizations, the City's Facebook page and our website.

Mayor Irons wants to ensure the ordinance is equitable and works for our community. The City is currently taking a look at themselves in a variety of ways, not just through this audit. We are also doing a City assessment with Management Partners, a water rate study; all ways to look at ourselves and how we are doing business. If it's passed, he wants to ensure that agenda Item III is brought back as part of the long term review.

> MOTION: Councilmember Christine Johnson moved approval of staff recommendation as presented; a complete a review of the existing business licensing

requirements, using a process that includes staff, stakeholders and experts and propose appropriate amendments or revisions to the Municipal Code and Tax Rate Schedule by the end of 2015. The motion was seconded by Mayor Irons and carried, 4-0-1.

Ayes: Irons, C. Johnson, Leage, Smukler
No's: None
Absent: N. Johnson

II. INTRODUCTION AND FIRST READING OF ORDINANCE NO. 589 OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA, ADDING SECTION 5.04.275 TO THE MORRO BAY MUNICIPAL CODE RELATING TO THE TIME LIMITED SUSPENSION AND REFUND OF PENALTIES FOR CERTAIN BUSINESSES THAT PAY BUSINESS LICENSE TAXES DUE AND OWING

Mayor Irons recused himself from this item as he is currently in an open case with MAS.

City Manager Dave Buckingham presented the staff report via power point. The problem seems to lie with the 100% penalty provision and the fact that is placing a significant burden on many businesses. The proposed Ordinance forgives all penalties for any business who makes all past due payments during the amnesty period, requires businesses to pay back taxes owed and to get a license, begins the grace period on July 8, 2014 ending March 13, 2015, requires that any penalties paid after July 8, 2014 and before March 14, 2015 be refunded by the City, requires penalties come back in force on March 14, 2015 when the amnesty period ends.

The public comment period for Item II was opened.

Bill Luffee argued the point that if a business is established but was unaware of the requirement, they shouldn't have to pay back taxes but should have to go in and get a current business license.

Bill Fapiano asked about itinerant folks. Mimes, teachers, instructors, those that aren't brick and mortar businesses, are they a special case?

The public comment period for Item II was closed.

MOTION: Councilmember Smukler moved for intro and first reading of Ordinance 589 by title and number only amending Morro Bay Municipal Code Title 5, adding Section 5.04.275 entitled *Amnesty Period* to provide a window of time, from July 8, 2014, through March 13, 2015, for businesses to comply with Section 5 without penalties and refund any penalties that have been paid. The motion was seconded by Councilmember Leage and carried, 3-0-2.

Ayes: C. Johnson, Leage, Smukler
No's: None
Recused: Irons
Absent: N. Johnson

Mayor Irons returned to the dais.

III. INTRODUCTION AND FIRST READING OF ORDINANCE NO. 590 OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA, ADDING SECTION 5.08.220 TO THE MORRO BAY MUNICIPAL CODE RELATING TO REQUIREMENTS FOR LOW REVENUE BUSINESSES TO OBTAIN BUSINESS LICENSES

City Manager Dave Buckingham presented the staff report via power point. Staff conducted discussions with stakeholders to consider the type of threshold, the amount of the threshold and an appropriate amount of tax to charge. Staff strongly recommends a gross receipts threshold for this temporary low-revenue exemption. In the last meeting, staff alluded to a $2500 annual gross receipts threshold for a flat $10 tax. The minimum tax though should approximate the real cost of processing a business license, which is more than $10. The current cost of an additional employee is $32, very close to the actual cost of processing a business license. As such, staff is recommending tripling the proposed threshold limit to $7500 and tripling the proposed tax to $32. This ordinance establishes a lower revenue business gross receipts threshold of $7500, it allows for businesses who demonstrate gross revenues under $7500 to qualify for a reduced license fee, it requires businesses wanting to be exempt to provide proof of gross receipts, and it requires businesses to pay back processing fees in order to qualify for exemption for the business tax.

The public comment period for Item III was opened.

Bill Luffee stated that this ordinance doesn't address non-profits.

Cyndee Edwards, representing the MB Merchants Association, asked staff to focus on thresholds for booth renters at salons. Often times a newer employee, as of yet without an established clientele, would qualify under the low threshold limits.

Romey West spoke representing musicians. He asked what if somebody works in multiple bands and doesn't live in or operate a business in Morro Bay; will they be looked at as a group or as an individual?

Billy Fapiano asked if the $7500 is a threshold for money made in Morro Bay only. He hopes so. Documents from the IRS may not reflect that difference.

Mary Van Zee, owner of Treasurers and Antique Mall, stated that in the past, there was never any code ordinances requiring these businesses, such as those in hers, to have a business license. Why would we require people to go back all these years and do this? She feels it's very unfair. She disagrees with the $7500 threshold because it doesn't include costs incurred by those business people. She feels this will still hurt our businesses.

Gene Doughty, local businessman, has a concern for older and lower income people. He feels this is really bad, he thinks that there should be an exempt threshold for some that then wouldn't have to pay a thing.

Ron Reisner received a MAS letter and it included a line item for Home Occupation, what is the rationale for that?

Jamie Parker has a question regarding musicians who pass through and maybe play once a year or just once. Is there a way for her to business to pay for their license?

The public comment period for Item III was closed.

Mayor Irons feels there's an opportunity in the next 6 months to address senior and/or low income issues that we have.

Councilmember Leage stated that gross vs flat tax rates will create a lot of work both the City and the business.

Councilmember Christine Johnson stated we can't address the needs based on our current code which is why we are having these discussions. She supports a threshold but wondered if $7500 is the right number.

Councilmember Smukler remembers us talking about an exemption point, not a low threshold. Other than San Jose, he hasn't found cities that utilize an exemption point. His thought is to bump up the $7500 to $10,000 and leave the $32 fee with no initial processing fee. It's not perfect but it's making a strong improvement.

Councilmember Smukler then suggested that the poverty guideline level as defined by the Department of Health and Human Services is $11,670 and so is looking at rounding that number up to $12,000.

Councilmember Christine Johnson likes using a legitimate data point as opposed to "throwing a dart up there." We can then continue the review and come back in June.

Mayor Irons wondered if instead of saying "a number", we say it's the poverty health and services number and if it fluctuates, that sets the fee.

> MOTION: Councilmember Leage moved for introduction and first reading of Ordinance No. 590 by number and title only, amending the Morro Bay Municipal Code Title 5, adding Section 5.08.220 entitled *Requirements for Low Revenue Businesses* to allow a reduced fee for businesses whose gross annual receipts are less than $12,000. The motion was seconded by Councilmember Christine Johnson and carried, 4-0-1.
>
> Ayes: Irons, C. Johnson, Leage, Smukler
> No's: None
> Absent: N. Johnson

ADJOURNMENT

The meeting adjourned at 6:44p.m.

Recorded by:

Jamie Boucher
City Clerk

AGENDA NO: A-2

MEETING DATE: 12/9/2014

MINUTES – MORRO BAY CITY COUNCIL
SPECIAL CLOSED SESSION MEETING –
NOVEMBER 12, 2014
CITY HALL CONFERENCE ROOM – 5:00 P.M.

PRESENT:	Jamie Irons	Mayor
	Christine Johnson	Councilmember
	Nancy Johnson	Councilmember
	George Leage	Councilmember
	Noah Smukler	Councilmember
STAFF:	David Buckingham	City Manager
	Joe Pannone	City Attorney

ESTABLISH QUORUM AND CALL TO ORDER

Mayor Irons called the meeting to order at 5:00pm.

SUMMARY OF CLOSED SESSION ITEMS - The Mayor read a summary of Closed Session items.

CLOSED SESSION PUBLIC COMMENTS - Mayor Irons opened the meeting for public comments for items only on the agenda; seeing none, the public comment period was closed.

The City Council moved to Closed Session and heard the following items:

CS-1 <u>CONFERENCE WITH LABOR NEGOTIATOR</u>

- Agency Designated representatives: Joseph W. Pannone, City Attorney
  Unrepresented Employee: David Buckingham, City Manager

CS-2 <u>CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION</u>

- Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9.: 1 Matter

The City Council reconvened to Open Session.

The City Attorney reported that with regards to the Closed Session Items, the Council did not take any reportable action pursuant to the Brown Act.

ADJOURNMENT
The meeting adjourned at 5.25p.m.

Recorded by:

Jamie Boucher
City Clerk

AGENDA NO: A-3

MEETING DATE: 12/9/2014

MINUTES - MORRO BAY CITY COUNCIL
REGULAR MEETING – NOVEMBER 12, 2014
VETERAN'S MEMORIAL HALL – 6:00P.M.

PRESENT:	Jamie Irons	Mayor
	Christine Johnson	Councilmember
	Nancy Johnson	Councilmember
	George Leage	Councilmember
	Noah Smukler	Councilmember
STAFF:	David Buckingham	City Manager
	Joe Pannone	City Attorney
	Jamie Boucher	City Clerk
	Rob Livick	Public Services Director
	Joe Woods	Recreation & Parks Director
	Eric Endersby	Harbor Director
	Amy Christey	Police Chief
	Susan Slayton	Administrative Services Director
	Whitney Mcilvaine	Contract Planner

ESTABLISH QUORUM AND CALL TO ORDER – the meeting was called to order at 6:00pm.
MOMENT OF SILENCE
PLEDGE OF ALLEGIANCE

CLOSED SESSION REPORT
City Attorney Joe Pannone reported that with regards to the Closed Session Items, the Council did not take any reportable action pursuant to the Brown Act. He went on to say that the initiation of litigation matter in question involved the Dynegy Wave Energy Project that was in front of the Federal Energy Regulatory Commission for their preliminary permit. The question being, does the Council want to pursue legal action regarding the issuance of a preliminary permit. It is the attorney's recommendation not too; the cost isn't worth it and it's too early - this is only a preliminary permit which only gives Dynegy first priority to apply for a license.

MAYOR AND COUNCILMEMBERS' REPORTS, ANNOUNCEMENTS & PRESENTATIONS

PUBLIC PRESENTATIONS

- Update on the Progress of the LEAP Program

Don Maruska presented the strategic framework for LEAP. LEAP is a collaborative effort to strengthen the community via residents, businesses and visitors coming together to make this work. He reviewed the strategic framework objectives: sustaining and enhancing quality of life for residents focused on defined benefits; the focus areas for LEAP: ways to increase sales of goods and services for residents and visitors, ways to boost and differentiate Morro Bay's offerings, and ways to leverage Morro Bay's distinctive assets for sustainable businesses with an emphasis on opportunities for head-of-household jobs. He presented some very preliminary

ideas for businesses, tourism, and diversification. In an effort for his facilitation of action planning, he has scheduled the first of many workshops for Wednesday, November 19th from 830-10am at the Fire Department – "Hopes, Issues, Options". Discussion points will include: who has a stake in the Morro Bay economy; what are your hopes for the Morro Bay economy and why those are important to you; what issues need attention to fulfill these hopes; what options are useful to address the issues; and what information is needed to evaluate options. The next steps include focusing information gathering for each initiative through a volunteer work group for development; and, holding a follow-up workshop #2 – "Action Planning". A Program Initiative template was presented that will be used to identify "targeted benefits", "key steps", "key people (lead); "resources / comments", and "schedule". The 2nd Workshop, Action Planning and Early Wins, has been tentatively scheduled for Thursday, December 11th from 6-9pm at the Morro Bay Community Center Studio. He hopes for the following commitments from the City – 2 current/incoming Councilmembers to attend workshops; City Manager attendance (plus other staff as needed), information resources (inventory of available space for commercial and light industry), and website support.

PUBLIC COMMENT

Mayor Irons recognized and thanked Jan Goldman for bringing a speaker for our business spot each and every meeting.

Nancy Castle announced the Thanksgiving Day Dinner which is sponsored by the POA and Morro Bay Rotary. It is being held on Thursday, November 27th from 1-3pm at the Morro Bay Community Center. It is free for anyone who wants to attend. They also deliver. She also presented an attendance graph for the 45 weeks of Monday night meals. The program continues to grow, they have lots of support, and should anybody feel the calling, donations are always accepted.

Walter Heath announced the Morro Bay Surfboard Art Festival being sponsored by Morro Bay in Bloom, a civic beautification organization. Their art auction is being held on Saturday, November 29th from 2-5pm at FishBonez. There will be 32 pieces of surfboard art being auctioned off. Cost is $50/person to attend. The money will benefit Project Surf Camp, and the Del Mar Arts Programs.

Bill Martoney spoke following up on the Dynegy project. He noticed there were 2 LLC's and when he heard the Closed Session report, he wondered if there were 2 applications, one for each LLC.

The public comment period was closed.

A. CONSENT AGENDA

Unless an item is pulled for separate action by the City Council, the following actions are approved without discussion.

A-1 APPROVAL OF MINUTES FOR THE SPECIAL CLOSED SESSION CITY COUNCIL MEETING HELD ON OCTOBER 28, 2014; (ADMINISTRATION)

RECOMMENDATION: Approve as submitted.

A-2 APPROVAL OF MINUTES FOR THE CITY COUNCIL MEETING HELD ON OCTOBER 28, 2014; (ADMINISTRATION)

RECOMMENDATION: Approve as submitted.

A-3 STATUS REPORT OF A MAJOR MAINTENANCE & REPAIR PLAN (MMRP) FOR THE EXISTING WASTEWATER TREATMENT PLANT; (PUBLIC SERVICES)

RECOMMENDATION: Receive and file.

A-4 AWARD OF MORRO BAY TRANSIT AND TROLLEY OPERATIONS AND MANAGEMENT REQUEST FOR PROPOSALS NO. MB 14-T1 TO MV TRANSPORTATION; (PUBLIC SERVICES)

RECOMMENDATION: Consider the proposal received and award Request for Proposals (RFP) No. MB 14-T1 to MV Transportation (MV) for the operation and management of Morro Bay Transit (fixed route and Call-A-Ride) (MBT) and trolley services for the period ending 2019.

A-5 ADOPTION OF RESOLUTION 75-14 AUTHORIZING ADMINISTRATIVE APPROVAL OF SUBLEASES ON CERTAIN MASTER LEASES AND APPROVAL OF REVISED CONSENT TO SUBLEASE AGREEMENT FORM FOR TIDELANDS TRUST LEASE SITES; (HARBOR)

RECOMMENDATION: Adopt Resolution 75-14 authorizing the Harbor Director to approve the remaining subleases that currently require Council approval, and approve the revised Consent to Sublease Agreement form, as proposed.

The public comment period was opened for the Consent Calendar; seeing none, the public comment period was closed.

Mayor Irons pulled Item A-5 from the Consent Calendar.

MOTION: Councilmember Nancy Johnson moved the City Council approve Items, A-1, A-2, A-3, and A-4 from the Consent Calendar as presented. The motion was seconded by Councilmember Christine Johnson and carried unanimously, 5-0.

Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
No's: None

A-5 ADOPTION OF RESOLUTION 75-14 AUTHORIZING ADMINISTRATIVE APPROVAL OF SUBLEASES ON CERTAIN MASTER LEASES AND APPROVAL OF REVISED CONSENT TO SUBLEASE AGREEMENT FORM FOR TIDELANDS TRUST LEASE SITES; (HARBOR)

Mayor Irons pulled this item to fix a couple of administrative typos on the resolution; changing "his" to "their" in the third "Whereas" and removing the "al" in the "Now therefore be it resolved…" as well as asking Harbor Director Eric Endersby to clarify the approval process. Mr. Endersby went on to describe their current practice as it affects the Measure D area. Mr. Endersby stated that all the older leases required City Council approval which we have now moved away from in our new Master Lease approval process. In the Measure D area, there remains one master lease that still requires Council approval, the rest require administrative approval.

MOTION: Mayor Irons moved to approve Item A-5 of the Consent Calendar with the stated corrections to the Resolution. The motion was seconded by Councilmember Smukler and carried unanimously, 5-0.

Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
No's: None

B. PUBLIC HEARINGS

B-1 APPEALS OF THE PLANNING COMMISSION APPROVAL OF COASTAL DEVELOPMENT PERMIT CP0-417 FOR CONSTRUCTION OF A NEW SINGLE-FAMILY RESIDENCE WITH AN ATTACHED SECONDARY UNIT AT 505 WALNUT STREET (APPELLANTS: BEATTIE, DEROSA, HELLER) (APPLICANTS: WAMMACK); (PUBLIC SERVICES)

Contract Planner Whitney Mcilvaine presented the staff report. She made note that there was a revised Resolution reflecting several more findings which she presented to each Councilmember.

There are 3 Appellants on this project, each being allowed 10 minutes to speak.

Alex Beattie lives in the neighborhood and doesn't feel the residence deserves a permit as proposed. The project satisfies all the zoning and code requirements; but not the visual resources or neighborhood compatibility areas. The Morro Bay General Plan states in part that ~the allowable height and bulk for residential development is not appropriate for some portions of the community; ~new development should be compatible with the character of surrounding areas; ~ the City should exercise strict design control over new development along their corridors to improve architectural coordination and quality; ~ and, the present human scale and leisurely, low intensity appearance of Morro Bay should be maintained through careful regulation of building height, location and mass. Other various City plans speak to neighborhood compatibility; if you define the boundaries of a neighborhood and look within the neighborhood, you can define neighborhood compatibility. He presented photos of how he defines the neighborhood to show this proposed home does not fit. He also feels that 505 Walnut will be a treeless lot. He finished by reiterating that 505 Walnut is not compatible as it is much larger than other homes in the neighborhood; it is visually dominant in a sensitive part of the City; its style is busy in a laid back, leisurely neighborhood; and, it is much too large for such a small lot on this community.

Jeffrey Heller is another Appellant. He asked the question, "is this what we want the entry to Morro Bay to look like?" He doesn't. He feels that Main Street has enormous character and wants to protect it; homes are in harmony with the environment. He stated that what ruins

neighborhoods are huge houses that don't fit and this is an opportunity to address scale. He presented the following request(s): ~he is not asking that nothing be built - he is not asking for a single story home; ~he is asking that the project be reduced by at least 20% to a maximum of 2400 square feet with a maximum height of 20 feet above existing "average natural grade" (which will still be larger than 80% of the homes on that stretch of Main Street); ~and, he wanted to emphasize the cumulative impact of the current permit will be irreversible. The current project as proposed is over 3000 square feet, has a 25 foot roofline, is on an irregular corner lot that is less than 5000 square feet, is in a high profile location, and is surrounded by significantly smaller homes. He feels the project is out of scale. He then presented photos of surrounding homes; ie: the west side condos which are sited sensibly below street level; single story homes; affordable housing (mobile home park around the corner); windmill house, the cannery, the lighthouse – all having character, tells a story, and has history; lower profile homes; and, homes sited behind trees. He went on to say that the City is currently drafting guidelines to mitigate the impact of large 2-story homes; the Coastal Act (1976) and the LCP (1981) address the importance of keeping the scale of new structures aligned with existing structures; the Coastal Act specifically mentions the negative cumulative impact of allowing projects that are out of scale as an appealable action. He provided options to reduce the scale: ~eliminate the separate unit; ~excavate the soil so the structure is sited lower; ~set the maximum ceiling height to 8 feet on both floors; and ~reduce the slope of the roof. He ended by asking Council return the approved CDP to the Planning Department to reduce the size of the project.

Betty DeRosa is the last Appellant. Her family has owned a home just north of the property for 47 years. She has seen change over the years. In the 80's and 90's, she saw the reconfiguring of homes becoming larger in scale. The lots were initially developed in the 30's as smaller homes. The neighborhood is a hamlet of artistic homes and she is concerned that feeling will be lost when the large home is put in front of it. She presented a rendering of the home as it is now and how it will look when it is built. She is concerned with both the height and the size of the home. Even if the roof size is compatible with others, this is the gateway entrance to the town; this will set precedent for others to build large homes. She hopes the project will be sent back to the drawing board to reduce the size.

Mel and Marilyn Wammack are the applicants for the project at 505 Walnut. After going through the Planning Department as well as the Planning Commission, he engaged his architect again to provide Council with pictures of the property. He feels the 3 appeals fall into 3 categories: ~lot lines/survey and he stated the survey was correct; ~misinterpretation of Section 30251 of the LCP, this home is out of the area in question; and, ~neighborhood compatibility, they are not the first ones wanting to do this. Things change – neighborhoods grow. He presented renderings of what the project will look like, feeling that it is not out of proportion. The home is set quite a ways back from the street; the house will look bigger as it is the first house on the street; there are other larger homes in the neighborhood, the precedent has already been set. This project conforms to the General Plan, to Zoning, to all setbacks, to the height restriction and meets the lot coverage ratio; and the home is similar to other new homes in close proximity.

The public comment period for item B-1 was opened.

Dorothy Cutter stated that the neighborhood described by Mr. Beattie is a neighborhood; they have Christmas parties, block parties, etc. This house is too big, there is no neighborhood compatibility, and she requests the project be sent back to Planning.

The public comment period for Item B-1 was closed.

Ms. Mcilvaine, at the request of Council delineated the findings in the new version of the Resolution that were added.

Councilmember Nancy Johnson stated it all boils down to people who found property, researched to find out what the rules are and given those rules, bought the lot; they went to the Planning Department and then Planning Commission and had a project approved and so now want to build. It's a matter of property rights; they aren't even asking for an exception. She will be following the Planning Commission decision and denying the appeals.

Councilmember Smukler thanked the appellants for their presentations, they were very well done. He stated that the applicant has followed all the rules. We have far too much gray area in our code, we need better definitions and tools and until we get there, we are sending a problematic message if we critique a project that meets our rules. He has to rely on that and a unanimous Planning Commission decision. He does feel we need to address the direct discharge to the asphalt driveway. He wants to ask staff to craft something that would address this runoff with some sort of retention capability.

Councilmember Leage doesn't understand why some feel it's not a compatible home. He thinks the fears will go away once it's built.

Councilmember Christine Johnson realizes the feeling of having "nothing there" and then having something – there will be impacts. She realizes the planning staff is working on ways to deal with neighborhood compatibility. This neighborhood also has a lot of quirkiness that is appealing; there is a limit on how far we go with bulk or size. She feels our Planning Commission definitely took that into consideration and their decision was unanimous. She has to look at the facts, the project had good Planning Commission review, the applicant came back with adjustments, and there are no exceptions. She feels it's the right decision to follow staff recommendation and deny the appeals.

Mayor Irons stated the applicant took input from the Planning Commission and made appropriate changes. The home meets all the requirements and there are no exceptions. It does have a secondary unit in it; when talking about affordable housing, this project meets all those requirements too. This project lends itself to light and space compatibility. He is supportive of approving the project.

Staff recommended inserting a Planning Condition #10 in the Resolution stating "the project shall capture and treat runoff from all hardscape to the maximum extent practical as approved by the City Engineer." That would make the original Condition #10 – Condition #11.

MOTION: Councilmember Nancy Johnson moved to approve staff recommendation,

deny all appeals and uphold the Planning Commission approval of Coastal Development Permit CPO-417 for 505 Walnut Street and implement staff condition #10 as so stated and add additional findings as presented in the amended Resolution and staff report. The motion was seconded by Councilmember Leage and carried unanimously 5-0.

Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
No's: None

C. UNFINISHED BUSINESS / SECOND READING AND ADOPTION OF ORDINANCES

C-1 REVIEW OF REPORT FOR NEW WATER RECLAMATION FACILITY PROJECT COMPARATIVE SITE ANALYSIS: REGIONAL CMC FACILITY VS RANCHO COLINA BY JOHN F. RICKENBACH CONSULTING AND ADOPT RESOLUTION 77-14 STATING PREFERENCE FOR NEW WRF SITE LOCATION; (PUBLIC SERVICES)

City Manager David Buckingham provided an update on the overall status of the WRF project and the recommendations for the way ahead.

Project Manager John Rickenbach presented a power point presentation on Site Comparison: CMC and Rancho Colina. The goals of the presentation were to summarize Council direction, summarize preliminary report findings, and make recommendations for the next steps. Mr. Rickenbach presented the Council's stated goals for the project: produce tertiary treated wastewater, reclaim wastewater for a variety of purposes, allow for onsite composting, design for energy recovery, design to treat for contaminants of emerging concern, design for other City functions, and ensure compatibility with neighboring land uses. Mr. Rickenbach stated there have been numerous opportunities for public input; this has been a very robust process. Mr. Rickenbach provided historical context that brought us to this point: reminding us of the recent reports and findings; and, reaffirming Council's direction. This report is to respond to Council direction, compare CMC and Rancho Colina as regional options, provide preliminary conceptual cost comparison, update previous information, provide input from WRFCAC, and facilitate a recommendation about the most appropriate site. They key issues regarding comparative analysis are: rough cost of expanding existing site for regional flows; funding options; permitting implications; potential water use benefits to the City; logistics of a regional partnership; and, implications for the Morro Bay rate payers. Key questions to be addressed are: unique regional benefits for either site; comparative cost savings at the two sites; relative water supply benefits; relative water reclamation opportunities; relative regulatory or logistical constraints; physical constraints for expansion; environmental issues; discharge limitations that affect design; is City's 5-year goal achievable at either site; City's role in constructing and operating a regional plant; and, comparative site advantages for securing funding. Findings include: Rancho Colina appears to be better overall; CMC site faces substantial logistical challenges; but the cost analysis isn't complete. Both sites have advantages: CMC combines multiple agencies at one site; Rancho Colina maximizes regional ag reclamation; and both sites are equi-distant to regional water network. It will take longer to realize regional benefits at CMC. Regarding unique water supply benefits, the CMC site has greater potential direct benefits in drought years which could be negated by minimum streamflow and water rights issues. For the Rancho Colina site, water supply should be better in normal and wet years, the CSD's participation would improve the

City's benefit, ag reclamation would indirectly benefit City supply, and there are less complex permitting issues. So overall, both site are beneficial with unique considerations. Regarding agricultural reclamation potential, the CMC site has 545 acres of potential irrigated acreage between CMC and the City; much of this is at a higher elevation than the plant site, and Dairy Creek Golf Course uses about 250 acre feet from the current plant. The Rancho Colina site has 1100 acres of irrigated ag land, most near the WRF site and the City, approximately 70% of this is at lower elevation than the site, and there is greater ag water demand in Morro Valley. As such, Rancho Colina is better overall for ag reclamation with greater opportunity potential. Regarding regulatory or logistical constraints, the CMC site has substantial logistical challenges: CDCR recently upgraded their plant and aren't interested in more expansion anytime soon; potential transfer of site is encumbered by bond restrictions; would take much study and time to get potential go ahead from other state agencies; County in best position to lead but not a current priority for County Public Works; State can't directly serve municipal customers under current regulations; multi-agency framework would be needed and would take time; and, lack of coordinated effort among agencies makes timing goals problematic. Regarding the Rancho Colina site there are fewer challenges: it is a private property owner, multi-agency framework isn't needed; and it makes the 5 year goal more achievable. Rancho Colina is substantially better overall here. Regarding CCC Environmental issues, the CMC site is far from the coast so visual and coastal access isn't an issue; ESHA is adjacent to but not on developable site area; and, there are prime agricultural soils on site. For the Rancho Colina site, it is far from the coast so visual and coast access isn't an issue; ESHA is adjacent to but not on developable site area; the pipeline would traverse known cultural resource site; and, there is less energy used because the site is closer to the City. Both sites are similar overall with some minor differences. Regarding the ability to reach this goal in 5 years, the CMC site is a no. The Rancho Colina site is a possible. The Rancho Colina site is substantially better overall. Regarding the City's role in a regional facility, with the CMC site, the City would not direct the overall project, CDCR would retain control over the facility with the County likely involved; the City would be a customer, not an operator; and the City and CSD would be responsible for pipelines and related infrastructure. With the Rancho Colina site, the City would direct the project to meet City needs; the City would own, operate and maintain the facility; and if the CSD was involved, that agency could be a customer. Rancho Colina allows for more direct control for the City. Regarding funding issues, both sites have water supply benefits allowing for grant and loan potential; most funding opportunities would be the same at either site. The CMC site would also allow for access to various state funding sources but if the WRF doesn't further CDCR goals, money is unlikely. With the Rancho Colina site, solving seawater intrusion and water quality issues could improve access for funding. Neither site has major advantages. In summary, Rancho Colina appears to have more relative advantages; CMC faces substantial logistical challenges; a 5 year goal potential is achievable at Rancho Colina and not CMC; the completion of the Carollo study will shed light on cost and design issues. It is his recommendation to complete the Carollo Study, take public input, refine the report as appropriate and have Council base their decision on a full report.

County Supervisor Bruce Gibson provided a couple of comments. The County is very respectful that it's the decision of Morro Bay and the Cayucos Sanitary District how to proceed with a new water recycling facility; he stands by to be helpful when and where he can. He operates under the assumption that Morro Bay and Cayucos should proceed together, it doesn't make sense to do this alone. The role he sees the County helping with is the land use permitting. The likely site

will be outside of the City limits, which falls under the Local Coastal Program of the County. They expect a very thorough comparison of alternatives. He has no dog in the fight but should be a jointly arrived at decision. The County stands by ready to move forward with us at one site or the other and are ready to work with us to form a plan.

John Diodati spoke representing the City's WRFCAC. They wrote, which he signed as Chair, a letter which is in Council's packet. Unanimously, they are requesting Council defer their decision to the December 9th meeting. They would like the opportunity to look at the Carollo report in order to give Council their recommendation.

John Pierre Wolfe is the Chairperson for the RWQCB, Central Coast Region. He is addressing this item pertaining to regulatory and logistical concerns. He stated there appears to be a dark cloud over the CMC site. Their Regional Water Quality staff hasn't been contacted regarding some challenges that may be ahead with a CMC selection. They haven't received any requests for input for any regulatory issues. But they are committed to assisting and are available to answer questions. Was surprised to get a December 9th deadline to show a strong interest; to be able to provide more definitive answers to expectations by then is a tall order. They are also willing to help out financially with some of the reports that you have.

Ken Harris, Executive Officer with RWQCB, stated the paperwork is going through and expects they will be able to cover the costs of the Carollo report. Of the $7+ billion in Prop 1 monies, this area will be getting $2.1 billion to administer. He doesn't know how that will be spent but will begin to identify projects on the Central Coast that may qualify. He feels that we have placed an emphasis on use of recycled water for agricultural purposes. He thinks around the State, there is a push to use recycled water for higher valued uses – ag is an appropriate use but drinking water has a much higher value. An advantage of a regional CMC facility is the opportunity to share risks and benefits with others. The RWQCB are facilitators, he doesn't understand what kind of leadership role they are being asked to take. He doesn't feel shared facilities are that unique or complicated. He also doesn't feel the water rights issues are that complicated. He wanted to emphasize the Rancho Colina site isn't a slam dunk; there will be challenges for a small community to undertake.

Fred Cordero with CDCR spoke regarding the CMC option. They are not looking at CMC as becoming an additional utility provider. He wanted to be realistic about time frames. Regarding the operation of the plant; he isn't sure they have the staffing to provide for others. It's hard to say if they are in or out without knowing the details. He stressed they are not in the utility business and aren't interested in expanding their role in that area. This is a capital improvement with ongoing operations which means it would have to be vetted through State Public Works, their legal team as well as general services legal.

The public comment period for Item C-1 was opened.

Bill Martoney feels that it's obvious the Morro Valley site is superior; there are too many agencies and issues to deal with at the CMC site. If we want to go regional, we could go with Los Osos; it would only cost $20 million to "supersize" their plant. Los Osos makes more sense if we go regional; otherwise, the best choice is Morro Valley.

The public comment period for Item C-1 was closed.

Mike Nunley, also consulting on the project stated that Carollo is working on the capacity evaluation at the CMC site. Carollo has concluded that there isn't sufficient capacity in the existing oxidation ditches (2 units), secondary clarifiers (2 units), tertiary filtration (8 units) or ultraviolet (UV) disinfection system to accommodate flows from the City and Cayucos. To utilize the CMC site, new oxidation ditches (2 or 3), new clarifiers (2 or 3) and at a minimum a doubling of the tertiary filters and UV disinfection system will be required. It's unclear if the current site can accommodate these new facilities. Site piping, earthwork and supporting facilities will also be required.

Mayor Irons stated that even in light of the information we have, he thinks it's important to have the Carollo report as a tool going into the December 9th meeting. In moving forward, he would have 2 comments in moving forward to December 9th- establishing ground-works/draft for an MOU with Rancho Colina and what is the similar question for CMC; ie: parameters set, etc.?

Councilmember Nancy Johnson stated that based on what we've heard and what we know, the WRFCAC has asked for a delay, Mr. Harris and Mr. Wolfe have said there isn't enough information, she suggests postponing this decision to the 9th including the Carollo report.

Councilmember Smukler agrees to extending the decision to December 9th as it will give us the ability to do more legwork and the new Councilmembers will be on board.

> MOTION: Councilmember Smukler moved to extend the meeting beyond 11pm. The motion was seconded by Mayor Irons and carried unanimously 5-0.
>
> Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
>
> No's: None

Councilmember Smukler went on to say that he agrees with working on a draft MOU with Rancho Colina. The amount of work to date has given us a lot of experience and he is confident we have what it takes to move forward. He thinks there is a pressing timeframe; he isn't willing to accept the risk of what a natural disaster at the current site would do to our community so he wants to move forward as quickly as possible. He would like to see Resolution 77-14 strengthened for the December 9th meeting adding the following bullet points: time cost of money; ~strong work effort generating community priorities and goals; ~site analysis; ~risks of current site and coastal hazards there and also the benefits and support for managed retreat and CAP measures; ~ability to implement the highest use of City owned beachfront property; ~achieve water reclamation benefits as soon as possible.

Councilmember Leage agrees we should wait until the 9th; it's important to have the Carollo report.

Councilmember Christine Johnson is thrilled we have 2 sites, especially considering where we were 2 years ago. The tipping point for her is costs. She supports where we are going at tonight's meeting; she supports the extra added bullet points to the Resolution.

Mayor Irons is glad to see the WRFCAC will have the opportunity to review the Carollo report before a site preference is made

. MOTION: Mayor Irons moved to approve staff recommendation #4 with the stated direction of the Rancho Colina MOU draft and continue conversations with CMC and what that outline arrangement would be and the recommendations by Councilmember Smukler regarding strengthening Resolution 77-14. The motion was seconded by Councilmember Smukler and carried unanimously, 5-0.

Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
No's: None

C-2 ADOPTION OF ORDINANCE NO. 589 ADDING SECTION 5.04.275 TO THE MORRO BAY MUNICIPAL CODE RELATING TO THE TIME LIMITED SUSPENSION AND REFUND OF PENALTIES FOR CERTAIN BUSINESSES THAT PAY BUSINESS LICENSE TAXES DUE AND OWING; (ADMINISTRATION)

Mayor Irons recused himself as he has a potential financial conflict.

City Manager David Buckingham presented the staff report.

The public comment period for Item C-2 was opened; seeing none, the public comment period was closed.

MOTION: Councilmember Smukler moved to adopt Ordinance No. 589 adding Section 5.04.275 to the Morro Bay Municipal Code relating to the time limited suspension and refund of penalties for certain businesses that pay business license taxes due and owing. The motion was seconded by Councilmember Nancy Johnson and carried 4-0-1 with Mayor Irons recusing himself.

Ayes: C. Johnson, N. Johnson, Leage, Smukler
No's: None
Recused: Irons

C-3 ADOPTION OF ORDINANCE NO. 590 ADDING SECTION 5.08.220 TO THE MORRO BAY MUNICIPAL CODE RELATING TO REQUIREMENTS FOR LOW REVENUE BUSINESSES TO OBTAIN BUSINESS LICENSES; (ADMINISTRATION)

Councilmember Nancy Johnson had to recuse herself as she has a conflict of interest; her husband's business may fall in the low threshold limit.

City Manager David Buckingham presented the staff report.

There was no one in the audience; as such, there was no public comment period.

MOTION: Mayor Irons moved to adopt Ordinance 590 adding Section 5.08.220 to the Morro Bay Municipal Code relating to requirements for low revenue businesses to obtain business licenses and add the $12,000 threshold limit to the Ordinance. The

motion was seconded by Councilmember Christine Johnson and carried 4-0-1 with Councilmember Nancy Johnson recusing herself.

Ayes: Irons, C. Johnson, Leage, Smukler
No's: None
Recused: N. Johnson

D. NEW BUSINESS

D-1 INTRODUCTION AND FIRST READING OF ORDINANCE NO. 588 AMENDING SECTION 15.04.150 OF THE MORRO BAY MUNICIPAL CODE RELATING TO COMMERCIAL FISHING VESSEL SLIP QUALIFICATIONS; (HARBOR)

Harbor Director Eric Endersby presented the staff report.

There was no one in the audience; as such, there was no public comment period.

MOTION: Mayor Irons moved to accept public testimony, move to waive the reading of Ordinance 588 in its entirety and introduce for first reading by number and title only Ordinance 588 amending Section 15.04.150 of the Morro Bay Municipal Code relating to commercial fishing vessel slip qualifications. The motion was seconded by Councilmember Christine Johnson and carried unanimously 5-0.

Ayes: Irons, C. Johnson, N. Johnson, Leage, Smukler
No's: None

E. COUNCIL DECLARATION OF FUTURE AGENDA ITEMS

Councilmember Smukler requested an informational Presentation on the idea of a Chumash/Marine Sanctuary concept; no concurrence was necessary as it will be brought forth as a Presentation item.

Mayor Irons requested bringing back the Sub-lease agreement for the Measure D area to discuss Harbor Director authorization vs Council authorization; all Councilmembers concurred.

Mayor Irons requested an update on the Power Plant over the last 2 years and into the future; all Councilmembers concurred.

ADJOURNMENT
The meeting adjourned at 11:20 p.m.

Recorded by:

Jamie Boucher
City Clerk

AGENDA NO: A-4

MEETING DATE: 12/9/2014

A PROCLAMATION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY DECLARING NOVEMBER, 2014 AS

"NATIONAL HOSPICE MONTH"

CITY COUNCIL
City of Morro Bay, California

WHEREAS, last year, approximately **1,600,000** terminally ill patients and their families relied on end-of-life care provided by the 5,500 volunteer and licensed hospice agencies located in communities throughout the United States; and

WHEREAS, hospice care allows patients and families the opportunity to receive professional medical services, pain and symptom control, and emotional and spiritual support without hospitalization; and

WHEREAS, hospice creates a compassionate atmosphere, where patients are able to die with dignity, wherever they call home, surrounded and supported by loved ones, familiar friends, and committed caregivers; and

WHEREAS, professional and compassionate hospice staff and volunteers - including physicians, nurses, social workers, bereavement counselors, spiritual counselors, therapists, home health aides, hospice musicians and trained in-home volunteers - provide comprehensive care and attend to the particular needs and wishes of each individual and family members and friends who also receive counseling and bereavement care that help them cope with a loss; and

WHEREAS, providing hospice care reaffirms our belief in the essential dignity of every person, regardless of age, health, or social status, and that every stage of human life deserves to be treated with the utmost respect and care; and

WHEREAS, Central Coast Hospice, Dignity Health Hospice, Hospice of San Luis Obispo County and Wilshire Hospice provide hospice care and bereavement counseling, respectively, to over **8,500** individuals each year within the County of San Luis Obispo; and

WHEREAS, this observance is an opportunity to encourage, honor, and support the professionals, volunteers, and family caregivers who take on the challenge of caring for patients, friends, family, and loved ones at the end of life.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Morro Bay does hereby proclaim November 2014 as "**National Hospice Month**" and encourages citizens to increase their awareness of the importance and availability of hospice services within San Luis Obispo County.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the City of Morro Bay to be affixed this 9th day of December, 2014

_____

JAMIE L. IRONS, Mayor
City of Morro Bay, California

AGENDA NO: __A-5_____
MEETING DATE: _12/09/2014_

RESOLUTION NO. 78-14

**RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF MORRO BAY, CALIFORNIA
RECITING THE FACT OF THE GENERAL MUNICIPAL ELECTION
HELD IN THE CITY OF MORRO BAY
ON THE 4TH DAY OF NOVEMBER, 2014;
DECLARING THE RESULTS THEREOF,
AND SUCH OTHER MATTERS AS ARE PROVIDED BY LAW**

T H E C I T Y C O U N C I L
City of Morro Bay, California

WHEREAS, a regular General Municipal Election was held and conducted in the City of Morro Bay, County of San Luis Obispo, State of California, on Tuesday, November 4, 2014 as required by law; and

WHEREAS, notice of said election was duly and regularly given in time, for and manner as provided by law; voting precincts were properly established; an election was held and conducted and the votes cast, received and canvassed and the returns made and declared in time, form, and manner as required by the provisions of the Elections Code of the State of California for the holding of elections in cities; and

WHEREAS, the Board of Supervisors of San Luis Obispo County has duly canvassed or caused to be canvassed the votes cast in the City of Morro Bay by the voters of the City at the General Municipal Election consolidated with the Statewide General Election held on November 4, 2014 and the County Clerk has duly certified to this City Council the result of the votes cast at said election which said certification is attached hereto and by reference made a part hereof.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay, California, as follows:

1. There were seven voting precincts established for the purpose of holding said election consisting of consolidations of the regular election precincts in the City of Morro Bay as established for the holding of state and county elections.

2. Said General Municipal Election was held for the purpose of voting on the following Measure as submitted to the electors of said City:

"Measure J-14"

Shall the Morro Bay Municipal Code be amended to change the time and method of electing the Mayor and City Council Members to allow for a single election in November on the date of the statewide general election with the candidates receiving the highest number votes of the ballots cast being elected to the open positions?

3. The City Council does declare and determine:

   The required number of qualified voters voting on "Measure J-14" relating to changing the time and method of electing the Mayor and City Councilmembers to allow for a single election in November did vote in favor thereof, and said measure did carry.

4. At said election, the measure for or against and the numbers of votes given are as set forth in the attached certification.

5. The total number of votes cast in the City at said election and the total number of votes given in each precinct and by vote-by-mail voters of the City was and is set forth in the attached certification.

6. The City Clerk shall certify to the passage and adoption of this Resolution; shall enter the same in the book of original Resolutions of the City; and shall make a minute of the passage and adoption thereof in the records of the proceedings of the City Council of said City, in the minutes of the meeting at which the same was passed and adopted.

PASSED AND ADOPTED by the City Council of the City of Morro Bay at a regular meeting thereof held on the 9th day of December 2014 on the following vote:

AYES:
NOES:
ABSENT:

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

CERTIFICATE OF THE COUNTY CLERK
RESULTS OF CANVASS OF ALL VOTES CAST
CITY OF MORRO BAY
MEASURE J-14
CONSOLIDATED GENERAL ELECTION
NOVEMBER 4, 2014

I, JULIE L. RODEWALD, County Clerk-Recorder of the County of San Luis Obispo, do hereby certify that pursuant to law I did canvass the returns of the votes cast at the above referenced election in the City of Morro Bay on November 4, 2014, and that the Statement of Votes Cast, to which this certificate is attached, shows the number of votes cast in said city for and against said measure, and that the totals shown for and against said measure in said city, and in each of the respective precincts therein, are full, true and correct.

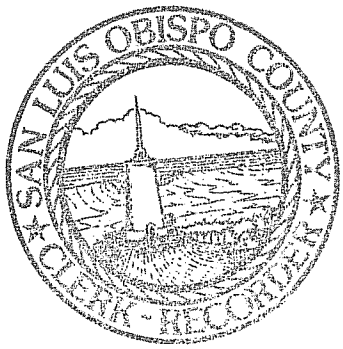
MEASURE J-14:

Shall the Morro Bay Municipal Code be amended to change the time and method of electing the Mayor and City Council Members to allow for a single election in November on the date of the statewide general election with the candidates receiving the highest number votes of the ballots cast being elected to the open positions?

WITNESS, my hand and Official Seal, this 19th day of November, 2014

Julie L. Rodewald

JULIE L. RODEWALD, County Clerk-Recorder



Statement of Votes Cast
CONSOLIDATED GENERAL ELECTION
SOVC For CITY OF MORRO BAY, All Counters, CITIES
FINAL OFFICIAL ELECTION RESULTS

	TURN OUT		
	Reg. Voters	Ballots Cast	% Turnout
Jurisdiction Wide			
CON 208-18			
Polling	939	182	19.38%
VBM	939	443	47.18%
Total	939	625	66.56%
CON 209-18			
Polling	881	196	22.25%
VBM	881	363	41.20%
Total	881	559	63.45%
CON 210-19			
Polling	876	165	18.84%
VBM	876	409	46.69%
Total	876	574	65.53%
CON 211-19			
Polling	694	109	15.71%
VBM	694	314	45.24%
Total	694	423	60.95%
CON 212-20			
Polling	1380	278	20.14%
VBM	1380	523	37.90%
Total	1380	801	58.04%
CON 213-20			
Polling	807	148	18.34%
VBM	807	359	44.49%
Total	807	507	62.83%
CON 214-20			
Polling	1201	262	21.82%
VBM	1201	598	49.79%
Total	1201	860	71.61%
Total			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
CONGRESSIONAL			
24TH CONGRESSIONAL DISTRICT			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%

Statement of Votes Cast
CONSOLIDATED GENERAL ELECTION
SOVC For CITY OF MORRO BAY, All Counters, CITIES
FINAL OFFICIAL ELECTION RESULTS

	TURN OUT		
	Reg. Voters	Ballots Cast	% Turnout
Total	6778	4349	64.16%
SENATE			
17TH SENATORIAL DISTRICT			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
ASSEMBLY			
35TH ASSEMBLY DISTRICT			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
BOARD OF EQUALIZATION			
STATE BOARD OF EQUAL DIST 2			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
SUPERVISOR/COMMISSIONER			
2ND SUPERVISORIAL DISTRICT			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
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Statement of Votes Cast
CONSOLIDATED GENERAL ELECTION
SOVC For CITY OF MORRO BAY, All Counters, CITIES
FINAL OFFICIAL ELECTION RESULTS

	TURN OUT		
	Reg. Voters	Ballots Cast	% Turnout
CITIES			
CITY OF MORRO BAY			
Polling	6778	1340	19.77%
VBM	6778	3009	44.39%
Total	6778	4349	64.16%
Total			
Polling	6778	1340	19.77%
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Total	6778	4349	64.16%

Statement of Votes Cast
CONSOLIDATED GENERAL ELECTION
SOVC For CITY OF MORRO BAY, All Counters, CITIES
FINAL OFFICIAL ELECTION RESULTS

J-14- CITY OF MORRO BAY CHANGE ELECTION (50% +1)

	Reg. Voters	Ballots Cast	Total Votes	Times Blank Voted	Times Over Voted	Number Of Under Votes	YES		NO	
Jurisdiction Wide										
CON 208-18										
Polling	939	182	175	7	0	0	120	68.57%	55	31.43%
VBM	939	443	434	8	1	0	343	79.03%	91	20.97%
Total	939	625	609	15	1	0	463	76.03%	146	23.97%
CON 209-18										
Polling	881	196	190	6	0	0	141	74.21%	49	25.79%
VBM	881	363	353	10	0	0	279	79.04%	74	20.96%
Total	881	559	543	16	0	0	420	77.35%	123	22.65%
CON 210-19										
Polling	876	165	160	5	0	0	120	75.00%	40	25.00%
VBM	876	409	395	14	0	0	312	78.99%	83	21.01%
Total	876	574	555	19	0	0	432	77.84%	123	22.16%
CON 211-19										
Polling	694	109	106	3	0	0	81	76.42%	25	23.58%
VBM	694	314	298	15	1	0	229	76.85%	69	23.15%
Total	694	423	404	18	1	0	310	76.73%	94	23.27%
CON 212-20										
Polling	1380	278	265	13	0	0	182	68.68%	83	31.32%
VBM	1380	523	512	11	0	0	381	74.41%	131	25.59%
Total	1380	801	777	24	0	0	563	72.46%	214	27.54%
CON 213-20										
Polling	807	148	144	4	0	0	121	84.03%	23	15.97%
VBM	807	359	351	8	0	0	260	74.07%	91	25.93%
Total	807	507	495	12	0	0	381	76.97%	114	23.03%
CON 214-20										
Polling	1201	262	245	17	0	0	178	72.65%	67	27.35%
VBM	1201	598	582	16	0	0	463	79.55%	119	20.45%
Total	1201	860	827	33	0	0	641	77.51%	186	22.49%
Total										
Polling	6778	1340	1285	55	0	0	943	73.39%	342	26.61%
VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%
Total	6778	4349	4210	137	2	0	3210	76.25%	1000	23.75%
CONGRESSIONAL										
24TH CONGRESSIONAL DISTRICT										
Polling	6778	1340	1285	55	0	0	943	73.39%	342	26.61%
VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%
Total	6778	4349	4210	137	2	0	3210	76.25%	1000	23.75%
Total										
Polling	6778	1340	1285	55	0	0	943	73.39%	342	26.61%
VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%

Statement of Votes Cast
CONSOLIDATED GENERAL ELECTION
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FINAL OFFICIAL ELECTION RESULTS

J-14- CITY OF MORRO BAY CHANGE ELECTION (50% +1)

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SENATE										
17TH SENATORIAL DISTRICT										
Polling	6778	1340	1285	55	0	0	943	73.39%	342	26.61%
VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%
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Total										
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J-14- CITY OF MORRO BAY CHANGE ELECTION (50% +1)

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CITIES										
CITY OF MORRO BAY										
Polling	6778	1340	1285	55	0	0	943	73.39%	342	26.61%
VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%
Total	6778	4349	4210	137	2	0	3210	76.25%	1000	23.75%
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VBM	6778	3009	2925	82	2	0	2267	77.50%	658	22.50%
Total	6778	4349	4210	137	2	0	3210	76.25%	1000	23.75%

AGENDA NO: A-6

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: November 25, 2014**

FROM: **Rob Livick, PE/PLS - Public Services Director/City Engineer**

SUBJECT: **Status Report of a Major Maintenance & Repair Plan (MMRP) for the Existing Wastewater Treatment Plant**

RECOMMENDATION

Staff recommends this report be received and filed.

ALTERNATIVES

As no action is requested, there are no recommended alternatives.

FISCAL IMPACT

No fiscal impact at this time as a result of this report. Fiscal impact is addressed through the budget process.

BACKGROUND

This staff report is intended to provide an update on the development of the MMRP for the WWTP. At the February 14, 2013, JPA meeting the Council and District Board approved the development of an MMRP and made the following motion:

- Direct staff to prepare a time sensitive and prioritized MMRP for the WWTP with an anticipated rolling 2 year budget;
- The JPA solicit proposals from a qualified firm, or firms, to provide technical advice and analysis on an as needed basis as determined by Morro Bay's Public Services Director and Cayucos Sanitary District Manager; and
- The Morro Bay Public Services Director and Cayucos Sanitary District Manager report back to the JPA on a semi-annual basis on the progress and costs associated with the MMRP.

Development of an MMRP will assist the City and District in projecting the budgeting of expenditures required to keep the current plant operating in compliance with regulatory requirements.

Staff's focus has continued to be on developing and implementing work on the MMRP projects approved for the FY14/15 budget. The adopted FY14/15 budget contains $1.221M in funding MMRP projects. The funds represent new MMRP projects as well as roll over from the FY13/14 budget for the headworks screening project and chlorine contact tank repairs. Staff is continuing to

Prepared by: __RL/BK/RS__ Dept. Review: RL__

City Manager Review:_____

City Attorney's Review:_____

develop and refine the implementation schedule for projects funded in the FY 14/15 budget. This staff report includes a status report on the on-going MMRP projects.

DISCUSSION

Digester #1 Repair

Plant staff continued the process of cleaning digester #1. They discovered that upon opening the digester, the amount of solids and debris within the digester was greater than anticipated. They have coordinated with the digester cleaning company to modify the scope of work to include additional cleaning time as well as dewatering of the solids and debris removed in the cleaning process. They are currently working with the contractor to schedule the cleaning and dewatering process.

Headworks Influent Screening Project

The headworks influent screening project has been completed. The screens and associated equipment have been installed and are now operational. City staff will prepare a Notice of Completion for approval at the December 13, 2014 JPA meeting. The new influent screens have greatly reduced the amount of debris in the downstream plant processes. Plant staff is happy to report the screens are removing approximately two hundred pounds of rags, plastics, and debris on a daily basis.

Chlorine Contact Basin Improvements

On October 24, plant staff received the required equipment to replace the head and idler shaft assemblies in the south portion of the chlorine contact tank. Staff has continued to work with the contractor on the contract and associated required documents. Staff is currently working to find a scheduling window to complete the work in late November or early December. Plant staff will also be making minor repairs to other equipment within the tank when the tank is off-line. The work will require by-passing the chlorine contact for at most a twenty-four hour period. By-passing of the tank will result in an effluent violation and the associated minimum mandatory penalty of $3,000. During the time period the tank is off-line, staff will chlorinate and disinfect the effluent, but will not be able to dechlorinate the effluent resulting in the violation. Both staff at the Regional Water Quality Control Board and the California Department of Health Shellfish Division has been notified of our repair plans and the intent to by-pass the chlorine contact tank.

CONCLUSION

Staff will continue to bring a status report on the development of the MMRP at City Council meetings on a monthly basis.

AGENDA NO: A-7

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: November 24, 2014**

FROM: **Cindy Jacinth, Associate Planner**

SUBJECT: **Review and adopt draft funding recommendations for the 2015 Community Development Block Grant (CDBG) program**

RECOMMENDATION

Council review and adopt draft funding recommendations for the 2015 Community Development Block Grant (CDBG) funds and forward recommendations to the San Luis Obispo County Board of Supervisors for inclusion with the other draft funding requests from the Urban County Consortium. Staff recommends the City Council forward the two items from the City of Morro Bay, the Pedestrian Accessibility Sidewalk Phase 4 (ADA) project estimated at $49,974 and program administration of $12,493 for a total funding allocation of $62,467. Additionally, authorize the City Manager to make pro rata adjustments to the allocation based on final funding amount from San Luis Obispo County based on the approval of the federal budget and HUD's final grant amount to the County.

ALTERNATIVES

Alternative 1. The City Council may move to adopt draft funding recommendations to forward to the Urban County Consortium which funds CAPSLO's Maxine Lewis Memorial Shelter application for the amount of $8,600 and fund the City's Pedestrian Accessibility Project for $41,374 and Program Administration amount of $12,493.

Alternative 2. The City Council may move to adopt draft funding recommendations to forward to the Urban County Consortium which funds CAPSLO's Prado Day Center application for the amount of $8,000 and fund the City's Pedestrian Accessibility Project for $41,974 and Program Administration amount of $12,493.

Alternative 3. The City Council may move to adopt draft funding recommendations to forward to the Urban County Consortium which funds the Senior Nutrition Program of SLO County's application for the amount of $9,370 and fund the City's Pedestrian Accessibility Project for $40,604 and Program Administration amount of $12,493.

FISCAL IMPACT

Approving staff recommendations would allow for $49,974 in accessibility improvements (sidewalk and curb ramps) along with $12,493 for the offset of administrative costs, including planning and engineering.

Prepared By: CJ Dept Review: SG

City Manager Review: _____

City Attorney Review: _____

Projects that receive over $2,000 in CDBG funds are subject to prevailing wage requirements under Davis-Bacon and Related Acts (DBRA).

SUMMARY

The CDBG fund is a flexible program providing communities with resources to address a wide range of unique community development needs. The program works to ensure decent, affordable housing; to provide services for members of our community; and, to create jobs through expansion and retention of businesses.

In 2011, the City of Morro Bay agreed to join with the Urban County of San Luis Obispo, which is a consortium of participating jurisdictions that includes San Luis Obispo County and the Cities of Paso Robles, Atascadero, San Luis Obispo and Arroyo Grande for the purpose of receiving and allocating CDBG funds. The 2015 CDBG award process began in the fall of 2014. The first of two workshops were held throughout the County to solicit public comment on community needs. A needs workshop was held in Atascadero with the Cities of Morro Bay, Atascadero and Paso Robles participating on September 11, 2014 at the Atascadero City Hall. The County published a request for CDBG proposals and the City received three applications. Total funding is anticipated to be approximately $62,467 which is approximately 9% less than the FY2014 award. Final funding amounts will be released by the Department of Housing and Community Development (HCD) in early 2015.

Staff is recommending the City Council review and adopt draft funding recommendations for the 2015 Community Development Block Grant (CDBG) funds; specifically the funding of the two requests from the City of Morro Bay in order to achieve maximum public benefit for this small funding program while also effectively utilizing staff administrative resources. This request is also consistent with City Council established 2014-2015 goal #2 of improving City streets.

BACKGROUND/DISCUSSION

CDBG funds are available for community development activities, which meet at least one of the three national objectives:

1. A benefit to low and moderate-income persons;
2. Aid in the prevention or elimination of blight; and
3. Address urgent needs that pose a serious and immediate threat to the health or welfare of the community.

In order for a program to qualify under the low and moderate income objective, at least 51% of the persons benefiting from the project or program must earn no more than 80% of the area median. Additionally, at least 70% of the CDBG funds must be spent toward this objective.

The following criteria should also be used to guide selection of CDBG programs:

1. The proposal is consistent with the national objectives and eligibility criteria of the HUD CDBG program;
2. The proposal is consistent with the Urban County Consolidated Plan;
3. The proposal is consistent with the General Plan and other City codes/ordinances;

4. The proposal will achieve multiple community development objectives;
5. The proposal can be implemented in a timely manner, without significant environmental, policy, procedural, legal, or fiscal obstacles to overcome; and
6. The project is not financially feasible without CDBG funding.

The City received the following applications for the 2015 funding cycle:

Public Facilities	Amount Requested	Amount Recommended
City of Morro Bay – *Handicapped Accessibility - Barrier Removal Projects*	$100,000	$49,974
Public Services – Limited to 15% of 2015 Allocation (or a maximum of $9,370)		
CAPSLO – *Maxine Lewis Memorial Shelter Operation expenses*	8,600	0
CAPSLO – *Prado Day Center Operation expenses*	8,000	0
Senior Nutrition Program of SLO County – *Senior Nutrition Program*	10,000	0
Administration – Limited to 20% of 2015 Allocation		
City Program Administration Costs (Required County Administration Costs)	4,372 (8,121)	4,372 (8,121)
Total Funds Requested	**$130,972**	
Estimated Total Funding Available		**62,467**

Applications received significantly exceed anticipated funding. In addition, there are limits related to categories of funding as described below. As part of the CDBG process, Council must adopt a draft recommendation for the 2015 grant year that meets the funding criteria while adhering to the category limits.

A copy of all applications and funding regulations have been provided with your agenda packet (Attachments 1 through 4). Copies are also available at the Public Services Department for public review.

Upon approval, the draft funding recommendations will be forwarded to the County for publishing along with recommendations from all participating jurisdictions. A minimum of 30 days after publication, a second public workshop will be held to allow questions from applicants regarding the draft recommendations after which the draft allocations plus any workshop comments will be forwarded to City Council for final approval at a duly noticed public hearing anticipated to be approximately March 10, 2015. After this next Council meeting, final funding recommendations would then be forwarded to the County Board of Supervisors. The following is a brief explanation of the funding groups and applications within each:

Public Facilities
Public Facilities are defined as activities relating to real property, including the acquisition, construction, rehabilitation or installation of public improvements. These activities can be carried out by a grantee, sub-recipient or other nonprofit.

- *City of Morro Bay – City Facilities and Infrastructure – Barrier Removal*
  Funds Requested: $100,000
  This project provides for the removal of accessibility barriers citywide. Project will include, in part, sidewalk modifications, infill of sidewalk gaps, visual and tactile warning systems, curb ramp, and addresses access to facilities.

Public Services – The 15% federal cap on percentage of award from this category is estimated at $9,370. Three applications were received under this category, one of which exceeds the amount available to award. Additionally, the City's Cooperation Agreement with the County requires that any funding of public services activities must be a minimum amount of $8,000 or more. This is a result of direction from HUD to not award CDBG funds that cost more to administer than the award itself.

CDBG regulations allow for a wide range of public service activities, including, but not limited to: employment services, crime prevention, child care, health services, substance abuse services, fair housing counseling and recreational services.

- *CAPSLO – Maxine Lewis Memorial Shelter (MLM) Operation Expenses*
  Funds Requested: $8,600
  CAPSLO is requesting CDBG funds to assist with operation expenses of the Maxine Lewis Memorial Shelter which is located in San Luis Obispo at Orcutt and South Broad Streets and which serves homeless men, women and children county-wide. CDBG funds will enable the Shelter to maintain the current level of services.

- *CAPSLO –Prado Day Center Operation Expenses*
  Funds Requested: $8,000
  CAPSLO is requesting CDBG funds to assist with operation expenses of the Prado Day which is located in San Luis Obispo but serves homeless men, women and children county-wide. The Prado Day Center provides day services that complement the MLM Shelter night services. CDBG funds will enable the Day Center to maintain the current level of services.

- *Senior Nutrition Program of San Luis Obispo County – Senior Nutrition Program*
  Funds Requested: $10,000 (maximum amount available to award would be $9,370).
  The Senior Nutrition Program provides free, hot, nutritious noon-time meals to seniors who are at least 60 years old and operate ten dining rooms throughout San Luis Obispo County. Meals are also delivered to qualified homebound seniors. Requested CDBG funds will be used to maintain the high quality of their program and services and will be used as matching funds for their Federal grant.

Administration –The 20% cap on percentage of award from this category is estimated at $12,493

this cycle.

- *City of Morro Bay – CDBG Program Administration*
  Funds Requested: $4,372 for City administration
  Pursuant to the City's 2015-2017 Cooperation Agreement with the County, the twenty percent cap on administration allowed under HUD regulation is split between City and County staff administration. Of the 20 percent, the City is eligible to apply for 35 percent (or $4,372) with the balance to be forwarded to the County. These are for costs associated with the administration of the Community Development Block Grant program. This includes staff time from Administration, Public Works and Administrative Services, and Planning Divisions required for grant administration, payment processing and coordination with County Planning staff.

  If administration costs exceed the funding allocation, remaining cost of administering the program will need to be paid from the general fund.

CONCLUSION

Due to the high administrative burden associated with the CDBG program, past direction from the HUD-Los Angeles office has been to recommend funding projects that provide maximum public benefit for minimum staff administration time. As a result of this, the City's Cooperation Agreement with the County requires that any awards in the category of public service activities be no less than $8,000. The requests by CAPSLO and the Senior Nutrition Program fall under the category of public service activity which is also capped by federal regulations limiting maximum funding of no more than $9,370.

Therefore, in order to be consistent with the City's Cooperation Agreement and also consistent with City Council 2014-2015 Goal #2 to improve City streets, staff recommends Council approve the draft funding recommendation for the requests from the City of Morro Bay for sidewalk accessibility improvements and program administration. Funding of the requests by the City allows the continuation of accessibility improvements at street locations throughout the City. Should Council modify this recommendation, awards must meet program requirements, providing a minimum of 70% of funding for benefit to low and moderate-income persons, and no more than 15% can be allocated to the public service category.

ATTACHMENTS

1. Community Development Block Grant Entitlement Fact Sheet (see http://hud.gov/offices/cpd/communitydevelopment/library/deskguid.cfm for the complete CDBG guidelines)
2. City of Morro Bay – Pedestrian Accessibility Project Phase 4 – Barrier Removal
3. CAPSLO – Maxine Lewis Memorial Shelter Operation Expenses
4. CAPSLO –Prado Day Center Operation Expenses
5. Senior Nutrition Program for SLO County – Senior Nutrition Program

ATTACHMENT 1

APPENDIX A

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

ENTITLEMENT PROGRAM FACT SHEET

Introduction

The program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.

In This Fact Sheet

- ✓ Grantee Eligibility
- ✓ Requirements
- ✓ Citizen Participation
- ✓ Legal Authority/Information Sources

Nature of Program

HUD awards grants to entitlement communities to carry out a wide range of community development activities directed toward revitalizing neighbor-hoods, economic development, and providing improved community facilities and services.

Entitlement communities develop their own programs and funding priorities. However, grantees must give maximum feasible priority to activities which benefit low- and moderate-income persons. A grantee may also carry out activities which aid in the prevention or elimination of slums or blight, or to which it certifies are designed to meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs. CDBG funds may not be used for activities which do not meet these broad national objectives.

CDBG funds may be used for activities which include, but are not limited to:

- ❖ Acquisition of real property;
- ❖ Relocation and demolition;
- ❖ Rehabilitation of residential and non-residential structures;
- ❖ Construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes;
- ❖ Public services, within certain limits;
- ❖ Activities relating to energy conservation and renewable energy resources; and

- Providing assistance to profit-motivated businesses to carry out economic development and job creation/retention activities.

Generally, the following types of activities are *ineligible*: acquisition, construction, or reconstruction of buildings for the general conduct of government; political activities; certain income payments and construction of new housing by units of general local government.

Grantee Eligibility

Central cities of Metropolitan Statistical Areas (MSAs), other metropolitan cities with populations of at least 50,000, and qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities) are entitled to receive annual grants. HUD determines the amount of each entitlement grant by a statutory dual formula which uses several objective measures of community needs, including the extent of poverty, population, housing overcrowding, age of housing, and population growth lag in relationship to other metropolitan areas.

Requirements

To receive its annual CDBG entitlement grant, a grantee must develop and submit to HUD its Consolidated Plan, (which is a jurisdiction's comprehensive planning document and application for funding under the following Community Planning and Development formula grant programs: CDBG, HOME Investment Partnerships, Housing Opportunities for Persons with AIDS (HOPWA), and Emergency Shelter Grants (ESG)). In its Consolidated Plan, the jurisdiction must identify its goals for these programs, as well as for housing programs. The goals will serve as the criteria against which HUD will evaluate a jurisdiction's Plan and its performance under the Plan. Also, the Consolidated Plan must include several required certifications, including the certification that not less than 70% of the CDBG funds received, over a one, two, or three year period specified by the grantee, will be used for activities that benefit low- and moderate-income persons, and that the grantee will affirmatively further fair housing. HUD will approve a Consolidated Plan submission unless the Plan (or a portion of it) is inconsistent with the purposes of the National Affordable Housing Act or is substantially incomplete.

Following approval, the Department will make a full grant award unless the Secretary has made a determination that the grantee: (1) has failed to carry out its CDBG-assisted activities in a timely manner; (2) has failed to carry out those activities and its certifications in accordance with the requirements and the primary objectives of Title I of the Housing and Community Development Act of 1974, as amended, and with other applicable laws; or (3) lacks a continuing capacity to carry out its CDBG-assisted activities in a timely manner.

Citizen

A grantee must develop and follow a detailed plan which provides for and encourages citizen participation and which emphasizes participation by

Participation

persons of low- or moderate-income, particularly residents of predominantly low- and moderate-income neighborhoods, slum or blighted areas, and areas in which the grantee proposes to use CDBG funds. The plan must: provide citizens with reasonable and timely access to local meetings, information, and records related to the grantee's proposed and actual use of funds; provide for public hearings to obtain citizen views and to respond to proposals and questions at all stages of the community development program, including at least the development of needs, the review of proposed activities, and the review of program performance; provide for timely written answers to written complaints and grievances; and identify how the needs of non-English speaking residents will be met in the case of public hearings where a significant number of non-English speaking residents can be reasonably expected to participate.

Legal Authority

Title I of the Housing and Community Development Act of 1974, Public Law 93-383, as amended; 42 U.S.C.-5301 *et seq.*

Information Sources

If you are an interested citizen, contact your local municipal or county officials for more information. If your local government officials cannot answer your questions, or if you are a local official, contact the HUD field office* that serves your area. Note that the local government administers the program and determines which local projects receive funding.

Information about HUD field offices may be found on the World Wide Web at http://www.hud.gov/local.html.

* Hearing impaired users may call the Federal Information Relay Service at 1-800-877-8339.

ATTACHMENT 2

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM APPLICATION FOR THE 2015 PROGRAM YEAR

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

Organization Name: City of Morro Bay
(Attach additional sheets if necessary)

To be considered for CDBG assistance, a completed application with any necessary exhibits, budgets or beneficiary data is required. **PLEASE CAREFULLY READ ALL OF THE INFORMATION IN THIS APPLICATION**. Applications can be mailed to one of the participating jurisdictions listed in this application or to: Suzan Ehdaie, Department of Planning and Building, 976 Osos Street, Room 300, San Luis Obispo, CA, 93408 or hand delivered to Suzan Ehdaie at 1035 Palm Street, Room 370, San Luis Obispo, CA, faxed to (805) 781-5624, or e-mailed to sehdaie@co.slo.ca.us. **The application deadline is 5:00 P.M., Wednesday, October 15, 2014.** Applications must be received by the County or one of the participating cities (Arroyo Grande, Pismo Beach, Atascadero, Morro Bay, Paso Robles, San Luis Obispo) prior to close of the business day. **POSTMARKED MAIL RECEIVED AFTER THE DEADLINE WILL NOT BE ACCEPTED.**

NOTES:

(1) Please review the CDBG regulations and guidelines and the Request for Proposals before completing your proposal. The CDBG regulations, under 24 CFR 570, are available at www.sloplanning.org under "Federal HUD Grants."

(2) **HMIS Reporting for 2015 homeless services, housing and shelter -** All homeless service providers applying for ESG funds to assist, house or shelter the homeless must identify and demonstrate its capacity to participate in the County of San Luis Obispo Homeless Management Information System (HMIS) to provide: personnel for data entry, user licensing, and hardware and software necessary for compatibility with HMIS. HMIS is an electronic data collection system that stores client level information about persons who access the homeless services system in a Continuum of Care, and reports aggregate data for the County as per the U.S. Department of Housing and Urban Development's (HUD) Data Standards. HUD updated its data standards in 2014, and the new standards are in effect starting October 1, 2014. . More information can be found at https://www.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual.pdf and https://www.hudexchange.info/resources/documents/HMIS-Data-Dictionary.pdf.

(3) The Project Proposal submitted to the County of San Luis Obispo shall be examined in relation to the County's community development goals and funding priorities as presented in the Urban County of San Luis Obispo 2015-2019 Consolidated Plan. The draft Consolidated Plan will be available at www.sloplanning.org in February 2015. The Housing and Economic Development team will make draft funding recommendations using the rating criteria stated in the 2015 Request for Proposals as well as other information including but not limited to: the County Board of Supervisors, recommendations from the Homeless Services Oversight Council, online "needs" survey, other participating jurisdictions of the Urban County of San Luis Obispo, identified needs that could be addressed by the grant funds, consistency with goals and priorities in the upcoming 2015-2019 Consolidated Plan and the Ten Year Plan to End Homelessness, results of the Needs Workshops, working knowledge of the project and organization, and availability of limited funds.

RECEIVED
OCT 15 2014
City of Morro Bay
Public Services Department

ATTACHMENT 2

Please attach additional sheets for more detailed information of your proposed project or program for any of the questions below.

CONTACT INFORMATION

1. **Name and mailing address of applicant organization, with contact person, phone and fax numbers, and e-mail address:**

Name: City of Morro Bay

Address (mailing and physical address requested if different):

Contact person/title: Cindy Jacinth, Associate Planner

Phone: 805-772-6577

Fax: 805-772-6268

E-mail address: cjacinth@morro-bay.ca.us

Organization's DUNS number: 060890571

If you are awarded CDBG funds or your proposal involves economic development, i.e., directly benefit a business, private property owner, business, involves façade improvements, provide technical assistance to a new or existing business, job creation, loan guarantee, the beneficiary must obtain a Dun and Bradsteet (DUNS) number that must be reported to HUD. Please contact Suzan Ehdaie, (805) 781-4979, sehdaie@slo.co.ca.us for information on how to obtain a DUNS number prior to incurring and obligating the federal funds.

Is your agency currently participating in HMIS?

NO.

If not, does your agency have the capacity to participate in HMIS? If yes, how so?

PROJECT DESCRIPTION

2. **Title/name/address of proposed project or program:**
   Morro Bay Pedestrian Accessibility Project – **Phase 4**
   City wide – Morro Bay

3. **Please describe the proposed project or program**. In one or two short paragraphs, include a brief project/program description, the groups who will benefit and an explanation of how they will benefit from the proposed project or program. For projects, describe the location of the project (be as specific as possible, e.g. street address). For programs, state the location from which the program will be operated and describe the geographic area served by the program. Also, please include a schedule of project/program milestones.

ATTACHMENT 2

Installation and repair of sidewalk and curb ramps throughout the City of Morro Bay will provide an accessible path of travel for those disabled low and very low income residents throughout the County. Project will include installation of curb ramps and sidewalk and repair of curb ramps and sidewalk so that this infrastructure meets current accessibility requirements. Streets include:

Street	From/To
Dunes	Morro/Market
Dunes	Main/Morro
Harbor	Monterey
Harbor	Market
Main	Driftwood
Main	Anchor
Monterey	Dunes (N)
Monterey	Dunes (S)
Monterey	Harbor
Monterey	Morro Bay Blvd
Morro	South(N)/Driftwood(N)
Morro	Marina
Morro	Dunes(S)
Morro	Beach
Morro	Dune(N)/Beach
Napa	Dunes
Piney Way	Morro Bay Blvd
Surf	Embarcadero Stairs / Market

4. **Will the services offered by your organization increase or expand as a result of the CDBG assistance? If yes, please answer the following questions:**

   a. What new programs or services will be provided?

   N/A

   b. Describe how existing programs or services will be expanded and what percentage of an increase is expected?

5. **Check any of the following eligible activity categories that apply to the proposed project or program:** (Refer to CDBG regulations and the Guide to Eligible CDBG Activities).

____ Acquisition of real property* ____ Disposition of real property

_X_ Public facilities and improvements (may include acquisition, construction, reconstruction, rehabilitation or installation)* and/or **

____ Privately owned utilities ____ Clearance and remediation activities**

____ Public services ____ Interim assistance

____ Relocation of individuals, families, businesses, non-profit organizations, and/or farms

____ Loss of rental income ____ Removal of architectural barriers

____ Housing rehabilitation**

____ New housing construction (under limited circumstances)

____ Homeownership assistance ____ Housing services

____ Code enforcement ____ Historic preservation**

____ Commercial or industrial rehabilitation** ____ Special economic development

____ Technical assistance and planning studies

* **Relocation**: Any project that involves the acquisition of property and/or rehabilitation and is funded in whole or in part with federal funds, even if the federal funds are not used for the acquisition itself, is subject to federal requirements connected to acquisition and relocation. A project cannot be broken into separate "projects" in order to avoid the federal requirements connected with property acquisition and relocation. Any questions concerning whether the relocation regulations apply to a specific property acquisition project should be directed to the County Housing and Economic Development staff before any action is taken on the project.

If HUD funded project will cause a household or a business to move, evenly temporarily, the relocation regulations will apply.

Along with application submit:

- Estimate of relocation cost (moving costs, subsidy amount for suitable replacement dwelling)
- Letter to owner of voluntary acquisition, plus proof of delivery to owner.
- General Information letter to tenants (both business and residential tenants), plus proof of delivery to all).
- List of tenants (both business and residential tenants) at the time of application submittal.
- Refer to SLO Col website for sample relocation letters.

** **Lead based paint**: If HUD funded project involves acquisition or rehabilitation of a residential units that was built in 1978 or earlier, then Lead-Based paint regulations will apply.

- Along with application submit an estimate of costs for LBP work, provided by certified LBP consultant. Or statement by LBP consultant explaining that project is exempt.
- Include any temporary housing costs.

6. Describe the need and the degree of urgency for the proposed project or program. What would be the consequences if the proposed project or program is not funded in the next year?

Removal of barriers through the construction and rehabilitation of sidewalks and curb ramps will remove the restriction that disabled and elderly face in accessing the City's pedestrian facilities.

ATTACHMENT 2

7. Please describe the specific organizational method used to implement the proposed project or program (single or multiple group, public agency, non-profit, for-profit, experience in operating similar programs, etc.):

The City of Morro Bay will be implementing the program.

8. Does the project require the issuance of a permit (from local, state or federal agencies)?

Yes ☒ No ☐

a. If yes, please identify the permits necessary to complete the project.

An encroachment permit will be required prior to construction

b. Have the necessary permits been issued? Please provide proof of permit issuance.

An encroachment permit will be required prior to construction.

c. If permits are required but not yet obtained, when will the permits be issued?

The permits will be issued during implementation.

NATIONAL OBJECTIVES CRITERIA

9. Does the proposed project or activity meet one of the three national objectives of the CDBG program? Please check one of the objectives below that applies to the proposal, and explain how the project or activity meets that national objective.

a. _X_ Benefits low- and moderate-income persons as defined by the U.S. Department of Housing and Urban Development (HUD). **NOTE:** To meet this national objective, the proposed activity must benefit a specific clientele or residents in a particular area of the County or participating city, at least 51 percent of who are low- and moderate-income persons.

Select one:

☐ **Low/Moderate-Income Area Benefit** – The project serves only a limited area which is proven by 2000 Census data or survey to be a predominately (51% or more) low/moderate-income area. Applicants choosing this category must be able to prove their project/activity primarily benefits low/moderate-income households.

☒ **Low/Moderate-Income Limited Clientele** – The project benefits a specific group of people (rather than all areas in a particular area), at least 51% of whom are low/moderate-income persons;. Note: Income verification for clients must be provided for this category. The following groups are presumed to be low/moderate-income: abused children; elderly persons; battered spouses; homeless persons; adults meeting census definition of severely disabled; persons living with AIDS; and migrant farm workers

☐ **Low/Moderate-Income Housing** – The project adds or improves permanent residential structures that will be/are occupied by low/moderate-income households upon completion.

ATTACHMENT 2

☐ **Low/Moderate-Income Jobs** – The project creates or retains permanents jobs, at least 51% of which are taken by low/moderate-income persons or considered to be available to low/moderate-income persons.

Explain: **Provides barrier-free pedestrian accessibility**

b. _____ Aids in the prevention or elimination of slums or blight. **NOTE:** To meet this national objective, the proposed activity must be within a designated slum or blighted area and must be designed to address one or more conditions that
contributed to the deterioration of the area.

Explain:

Select one:
☐ **Addressing Slums or Blight on an Area Basis** -
☐ **Addressing Slums or Blight on a Spot** Basis – This project will prevent or eliminate specific conditions of blight or physical decay. Activities are limited to clearance, historic preservation, rehabilitation of buildings, but only to the extent necessary to eliminate conditions detrimental to public health and safety.

Is the project located in a Redevelopment Area? Yes ☐ No ☐
If yes, attach a map of the area with the site highlighted, and provide the Redevelopment Project Area (excerpts accepted) which documents the existence of slum/blight. Also, document the specific redevelopment objectives pertaining to the proposed project.

c. _____ Meets community development needs having a particular urgency where existing conditions pose a serious and immediate threat to the health or welfare of the community, and no other funding sources are available, i.e., a major catastrophe such as a flood or earthquake. **NOTE:** To meet this national objective, the proposed activity must deal with major catastrophes or emergencies such as floods or earthquakes.

Explain:

ATTACHMENT 2

10. If the project or program is designed to meet the national objective of providing benefit to low- and moderate-income persons, please estimate the number of unduplicated number of persons (or households) to benefit from the project and break that estimate down by income group (unduplicated means the number who are served, i.e., the grant will allow 25 children to participate in preschool – not 25 children x 5 days x 52 weeks = 6,500).

a. Total number of persons or households who will benefit from the project or program (regardless of income group):

__5,000____ Persons/households (circle the applicable unit)

b. Of the total number of persons or households entered above, how many will be low-income (earning 51% - 80% or less of the County median-income)?

__N/A____ Persons/households (circle the applicable unit)

c. Of the total number of persons or households entered above, how many will be very low-income (earning 50% or less of the County median-income)?

___ N/A _____ Persons/households (circle the applicable unit)

11. Who are the clients of your organization? (Example: low- to moderate-income persons, elderly persons, severely disabled persons, migrant farm workers, battered spouses, etc.)

Low- to moderate-income persons.

12. How will the clients benefit from this project?

Provides for barrier free access to sidewalk and services the clients use.

13. If your project serves homeless households, please describe how your program coordinates with other continuum of care projects and entities and how it aligns with the San Luis Obispo Countywide 10-Year Plan to Homelessness.

N/A

BENEFICIARY DATA

NOTE: You are required to provide beneficiary data at the end of each quarter and year end data of the fiscal year.

14. How do you collect demographic data on the beneficiaries of the proposed project or program? (Example: racial/ethnic characteristics)

City staff will be using census data to determine city-wide benefit.

15. How do you document and maintain income status of each client in compliance with HUD regulations? (Example: very low, low- and moderate-income)

ATTACHMENT 2

See #14.

16. Provide the following information for the persons in your organization responsible for the preparation and submittal of the quarterly reports and for collecting and reporting the beneficiary data to the Urban County.

Contact person/title: Cindy Jacinth, Associate Planner

Phone number: 805-772-6577

E-mail address: cjacinth@morro-bay.ca.us

FINANCIAL INFORMATION

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects please provide the required additional budget information on BUDGET FORM A and BUDGET FORM B attached to the back of this application.

17. Total amount of CDBG funds requested: $ 100,000

18. Please identify the cities to which you are applying. If you are applying to one or more cities, please provide a copy of the application to the County by the application deadline. If you are requesting CDBG funds from more than one city, please break down the amount shown above by the city listed below. The minimum requested CDBG amount is $8,000 for public services from one or more jurisdictions.

City of Arroyo Grande:		City of Paso Robles:	
City of Pismo Beach:		City of San Luis Obispo:	
City of Atascadero:		County of San Luis Obispo:	
City of Morro Bay:	100,000		

19. Please describe the budget for the proposed project or program. Itemize all sources of funding expected to be available and used for this project

a. **Revenues:**

1. CDBG Funds requested	$ 100,000
2. Other Federal fund(s) (please describe below)	$
3. State source(s) (please describe below)	$
4. Local source(s) (please describe below)	$
5. Other funds (please describe below)	$
Total Revenues	**$ 100,000**

b. **Expenditures**: List below by item or cost category.

20. How do you plan to fund the operation and maintenance costs (if any) associated with this project? Are these funds available now? If not, when will they be available? And from what sources?

The City of Morro Bay general fund will be used to maintain the facilities.

21. Will CDBG funds be used to match/leverage other funds? List below funding sources and amounts and identify award dates of these sources.

No.

I certify that the information in this application is true and accurate to the best of my knowledge and ability.

Robert A. Livick — 10-15-2014

Signature — Date

Robert A. Livick, PE/PLS - Public Services Director/City Engineer

Printed or typed name — Title

Note to applicant:

The County and cities require all of the grant recipients to maintain general liability, automobile and workman's compensation insurance with limits of not less than $1 million***. If you are successful in obtaining an award, you will be asked to provide documentation regarding ability to provide the required coverage.

*** Liability coverage may vary by jurisdiction. Please call the City/County contact to verify limits.

Prior to HUD's release of grant funds for the CDBG-funded project, a review of the project's potential impact on the environment must be conducted by the awarding jurisdictions and approved by the County of San Luis Obispo **prior to obligating or incurring project costs**. The County must certify to HUD that it has complied with all applicable environmental regulations and requirements. If project costs be obligated or incurred prior to the completion of the necessary environmental review, the project **shall not** benefit from the grant funds. The level of environmental review required depends on the nature of the project. Tilte 24 CFR Part 58 is available at http://www.hud.gov/offices/pih/ih/codetalk/onap/docs/24cfr58.pdf.

If you need assistance or have questions regarding this application, please contact any of the persons listed below. Your applications can be dropped off or mailed to the following locations:

- Kelly Heffernon - Community Development Department - (805) 473-5420
  City of Arroyo Grande, 300 E. Branch Street, Arroyo Grande, CA 93420

- Valerie Humphrey - Public Works Department - (805) 470-3460

ATTACHMENT 2

City of Atascadero, 6500 Palma Avenue, Atascadero, CA 93422

- Rob Livick - Public Services Department - (805) 772-6261
  City of Morro Bay, 955 Shasta Avenue, Morro Bay, CA, 93442

- Darren Nash - Community Development Department - (805) 237-3970
  City of Paso Robles, 1000 Spring St., Paso Robles, CA 93446

- Carolyn Johnson, Planning Department - (805)773-7043
  City of Pismo Beach, 760 Mattie Road, Pismo Beach, CA 93449

- Tyler Corey - Community Development Department – (805) 781-7175
  City of San Luis Obispo, 919 Palm St., San Luis Obispo, CA 93401

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL BUDGET INFORMATION SHEET

BUDGET FORM A

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects must provide the applicable project budget information.

Financial considerations are key in assessing a project's ability to be completed successfully and timely. Factors to be considered in this area include (a) availability and sufficiency of resources (including all non-CDBG, federal, state, county or private funding sources, (b) the leveraging of resources, (c) fiscal support for the project for its continued viability and (d) the project budget's accuracy, reasonableness and completeness in determining the financial needs of the project.

Source of Funds. Provide for entire project and round to the nearest hundred dollars. Do NOT include operating costs as this is not an eligible CDBG costs for projects involving acquisition, construction or rehabilitation projects.

Comment on your entity's strategy and plans on the leveraging and sufficiency of resources to implement the proposed project. If project is not leveraged with other funds, explain why CDBG funds are being relied on solely to fund the proposed project.

Description of Cost	Date Funds Available	Amount Requested	Approved - Secured	Total	% of Total Budge
CDBG Funds: This Request		$100,000		$100,000	$100,000
Previous Award					
Previous Award					
CDBG Funds: This request					
Previous Award					
Other Federal Funds Source:					
State Funds					

Source:					
Private Funds:					
Private Funds:					
Private Funds:					
In-Kind Contributions: Labor					
In-Kind Contributions					
Other:					
Other:					
Other:					
Totals					**100%**

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL BUDGET INFORMATION SHEET

BUDGET FORM B

Project Budget
Budget Form – Acquisition, Construction and Rehabilitation Project Preliminary Budget & Project Funding Requirements

Agency name: City of Morro Bay
Project: Morro Bay Pedestrian Accessibility Project

Preliminary Budget: List all funding necessary to complete the proposed project. You must provide a **DETAILED** budget line-item worksheet for all costs associated with the project. **NOTE: YOU MUST USE THIS FORMAT**. Additionally, you must provide a **DETAILED** budget narrative explaining how you arrived at each line item.

Activity	CDBG Funds	Other Funds	Total Cost
ACQUISITION			
Purchase of Land			
Purchase of Units			
Other Expenses (List)			
HARD COSTS			
Site Work			
Demolition			
Construction	100,000		100,000
Appliances			
Accessory Buildings			
General Requirements			
Contractor Overhead			
Contractor Profit			
Construction Contingency			
Other (List on separate sheet			
SOFT COSTS			

Architect Fee
Architect Fee
Legal Fees
Engineering F
Other Profess
Appraisal
Market Study
Environmenta
Title & Recorc
Relocation Ex
Lead Based P
Consultants
Other Soft Co
INTERIM COS
Construction I
Construction I
Credit Enhanc
Real Estate Ta
FINANCING C
Bond Premium
Permanent Lo
Permanent Lo
Other Financir
DEVELOPER individually fo
TOTAL DEVE

Budget must be spe
sources. This inclu
administration. Indi

Authorization:

Robert A. Z

Authorized Signatur

Public Services Di

Title

Robert A. Livi

Print Name

10-15-2014

Date

ATTACHMENT 2

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL TIMELINE INFORMATION SHEET

TIMELINE FORM C

WORK PLAN & PERFORMANCE SCHEDULE

List all project milestones and their anticipated work period. There will be an opportunity to update the project timeline after grant notification and before executing a grant agreement. Any proposed changes, including extension and early completion, must be requested in writing and approved in advance by the jurisdiction receiving the funding application. Note: Applicant will assume all financial risk if work on the proposed project begins before environmental clearance is obtained. You may either use or recreate this form to add tasks and activities and extended timeline. **YOU MUST USE THIS FORMAT.**

Task/Activity (Starts July 2015)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Environmental Review	X	X	X									
Contract Execution				X	X							
Project Activity Design						X	X					
Project Activity Implementation								X	X	X	X	X

ATTACHMENT 3

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM APPLICATION FOR THE 2015 PROGRAM YEAR

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

Organization Name: **Community Action Partnership of San Luis Obispo County, Inc.**
(Attach additional sheets if necessary)

To be considered for CDBG assistance, a completed application with any necessary exhibits, budgets or beneficiary data is required. **PLEASE CAREFULLY READ ALL OF THE INFORMATION IN THIS APPLICATION**. Applications can be mailed to one of the participating jurisdictions listed in this application or to: Suzan Ehdaie, Department of Planning and Building, 976 Osos Street, Room 300, San Luis Obispo, CA, 93408 or hand delivered to Suzan Ehdaie at 1035 Palm Street, Room 370, San Luis Obispo, CA, faxed to (805) 781-5624, or e-mailed to sehdaie@co.slo.ca.us. **The application deadline is 5:00 P.M., Tuesday, October 15, 2014.** Applications must be received by the County or one of the participating cities (Arroyo Grande, Pismo Beach, Atascadero, Morro Bay, Paso Robles, San Luis Obispo) prior to close of the business day. **POSTMARKED MAIL RECEIVED AFTER THE DEADLINE WILL NOT BE ACCEPTED.**

NOTES:

(1) Please review the CDBG regulations and guidelines and the Request for Proposals before completing your proposal. The CDBG regulations, under 24 CFR 570, are available at www.sloplanning.org under "Federal HUD Grants."

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(3) The Project Proposal submitted to the County of San Luis Obispo shall be examined in relation to the County's community development goals and funding priorities as presented in the Urban County of San Luis Obispo 2015-2019 Consolidated Plan. The draft Consolidated Plan will be available at www.sloplanning.org in February 2015. The Housing and Economic Development team will make draft funding recommendations using the rating criteria stated in the 2015 Request for Proposals as well as other information including but not limited to: the County Board of Supervisors, recommendations from the Homeless Services Oversight Council, online "needs" survey, other participating jurisdictions of the Urban County of San Luis Obispo, identified needs that could be addressed by the grant funds, consistency with goals and priorities in the upcoming 2015-2019 Consolidated Plan and the Ten Year Plan to End Homelessness, results of the Needs Workshops, working knowledge of the project and organization, and availability of limited funds.

ATTACHMENT 3

Please attach additional sheets for more detailed information of your proposed project or program for any of the questions below.

CONTACT INFORMATION

1. Name and mailing address of applicant organization, with contact person, phone and fax numbers, and e-mail address:

Name: *Community Action Partnership of San Luis Obispo County, Inc. (CAPSLO)*

Address (mailing and physical address requested if different):
1030 Southwood Drive,
San Luis Obispo, CA 93401

Contact person/title: *Elizabeth "Biz" Steinberg, Chief Executive Officer*

Phone: *(805) 544-4355*

Fax: *(805) 549-8388*

E-mail address: *esteinberg@capslo.org*

Organization's DUNS number: *0589019500000*
If you are awarded CDBG funds or your proposal involves economic development, i.e., directly benefit a business, private property owner, business, involves façade improvements, provide technical assistance to a new or existing business, job creation, loan guarantee, the beneficiary must obtain a Dun and Bradsteet (DUNS) number that must be reported to HUD. Please contact Suzan Ehdaie, (805) 781-4979, sehdaie@slo.co.ca.us for information on how to obtain a DUNS number prior to incurring and obligating the federal funds.

Is your agency currently participating in HMIS? Yes

If not, does your agency have the capacity to participate in HMIS? If yes, how so?
All data relating to the project will be collected and reported using the HMIS system. The CAPSLO Homeless Services Data Analyst is responsible for getting the information on all case managed clients who are being served under all grants requiring HMIS. Every other week, a case conference is held and it is decided then what clients will be accepted to the program, and which clients will be closed out. During the following week, the Data Analyst meets one on one with each of the Case Managers to review the client file for all opening and closing clients, for completeness, accuracy, and to verify that the client is eligible for services under the program, and that all documentation is in place. The Data Analyst then enters all of the necessary information into HMIS. Additionally, case notes are emailed to the Data Analyst on a regular basis in order to get all of the services that the client is receiving entered into HMIS. With the information entered into the system, HMIS is capable of running reports to be given to the county.

ATTACHMENT 3

PROJECT DESCRIPTION

2. Title/name/address of proposed project or program:

Maxine Lewis Memorial Shelter
750 Orcutt Road
San Luis Obispo, CA 93401

3. Please describe the proposed project or program. In one or two short paragraphs, include a brief project/program description, the groups who will benefit and an explanation of how they will benefit from the proposed project or program. For projects, describe the location of the project (be as specific as possible, e.g. street address). For programs, state the location from which the program will be operated and describe the geographic area served by the program. Also, please include a schedule of project/program milestones.

Program description: *The San Luis Obispo homeless shelter program has two shelter sites: the Maxine Lewis Memorial (MLM) Shelter at Orcutt and South Broad Street, and the Interfaith Coalition for the Homeless (ICH) Shelter. ICH is a coalition of 14 faith-based groups (supported by volunteers) that formed nearly two decades ago to support emergency overnight sheltering in the community. A different church or synagogue hosts the ICH Shelter each month. Both shelter sites are open seven nights a week, year-round. The MLM Shelter opens at 5:00pm for dinner, showers, client screening/intake for shelter beds, and client information/referral assistance. Families are transported from the MLM Shelter to the ICH Shelter where they will sleep. Individuals and persons with special needs stay at the MLM Shelter.*

Who/how will benefit: ***Who:*** *Homeless individuals and/or families will benefit from the services provided as a result of receiving this funding. According to the 2013 Homeless Enumeration Report, 2,186 county residents were identified as homeless. It is estimated that 3,497 persons are homeless at some point in time over the course of a year. Of those surveyed in 2013 who were homeless in San Luis Obispo County:*

- *50% reported this was not their first time being homeless.*
- *47% reported they had been homeless for a year or more during this current episode.*
- *Their mean age is 42.*
- *69% are White/Caucasian, with 14% Hispanic/Latino.*
- *6% identified themselves as bisexual, gay or lesbian.*
- *67% are males and 33% are females.*
- *33% had some college education or college degree.*
- *71% were living in SLO Co. before becoming homeless.*
- *12% reported being a veteran.*

How: *The San Luis Obispo shelter program will continue to benefit the county's homeless men, women and children who receive emergency intervention services to meet their most basic needs. Clients receive emotional and educational support to think beyond their immediate challenges and develop a plan to stabilize their lives and move toward greater self-sufficiency.*

Location: *The MLM Shelter is in the City of San Luis Obispo but serves the entire county. The program serves homeless men, women and children from each of the incorporated cities and all of the unincorporated communities in the county.*

Milestones: *Through CAPSLO's relationships and partnerships with other service sites and providers, many of the low-income persons we serve achieve permanent housing, and more stable employment and family functioning. Given our county's housing crisis, each family's personal achievements are program milestones.*

The outcomes achieved in our homeless programs represent incremental progress toward increased personal and community well-being. At the personal level this means a homeless person facing their problems, accepting help, developing a life-changing plan, and working in partnership with shelter staff to take a series of small, manageable steps that lead to positive change. At the community level this means reducing the impacts on agencies and systems such as law enforcement, the courts, hospital emergency rooms, mental health and drug/alcohol resources, and child welfare services.

4. Will the services offered by your organization increase or expand as a result of the CDBG assistance? If yes, please answer the following questions:

a. What new programs or services will be provided?
No expansion is planned because the MLM Shelter program is already operating at full capacity, year-round.

b. Describe how existing programs or services will be expanded and what percentage of an increase is expected?
CDBG funds will enable the San Luis Obispo shelter program to maintain the current level of services.

5. Check any of the following eligible activity categories that apply to the proposed project or program: (Refer to CDBG regulations and the Guide to Eligible CDBG Activities).

____ Acquisition of real property* ____ Disposition of real property

____ Public facilities and improvements (may include acquisition, construction, reconstruction, rehabilitation or installation)* and/or **

____ Privately owned utilities ____ Clearance and remediation activities**

_X_ Public services ____ Interim assistance

____ Relocation of individuals, families, businesses, non-profit organizations, and/or farms

____ Loss of rental income ____ Removal of architectural barriers

____ Housing rehabilitation**

____ New housing construction (under limited circumstances)

____ Homeownership assistance ____ Housing services

____ Code enforcement ____ Historic preservation**

____ Commercial or industrial rehabilitation** ____ Special economic development

____ Technical assistance and planning studies

* **Relocation**: Any project that involves the acquisition of property and/or rehabilitation and is funded in whole or in part with federal funds, even if the federal funds are not used for the acquisition itself, is subject to federal requirements connected to acquisition and relocation. A project cannot be broken into separate "projects" in order to avoid the federal requirements connected with property acquisition and relocation. Any questions concerning whether the relocation regulations apply to a specific property acquisition project should be directed to the County Housing and Economic Development staff before any action is taken on the project.

If HUD funded project will cause a household or a business to move, evenly temporarily, the relocation regulations will apply.

Along with application submit:

- Estimate of relocation cost (moving costs, subsidy amount for suitable replacement dwelling)
- Letter to owner of voluntary acquisition, plus proof of delivery to owner.
- General Information letter to tenants (both business and residential tenants), plus proof of delivery to all).
- List of tenants (both business and residential tenants) at the time of application submittal.
- Refer to SLO Col website for sample relocation letters.

** **Lead based paint**: If HUD funded project involves acquisition or rehabilitation of a residential units that was built in 1978 or earlier, then Lead-Based paint regulations will apply.

- Along with application submit an estimate of costs for LBP work, provided by certified LBP consultant. Or statement by LBP consultant explaining that project is exempt.
- Include any temporary housing costs.

6. Describe the need and the degree of urgency for the proposed project or program. What would be the consequences if the proposed project or program is not funded in the next year?

Need/Urgency: *All services offered are heavily used indicating a substantial need in the county. In the 12 months ending June 30, 2014, 795 unduplicated persons received one or more nights of shelter for a total of 28,645 shelter nights. More than 46.8% of clients were women and children, up from 43% in 2012-13, and more than 54% of adults were disabled. Averages of 78.5 persons per night are sheltered year-round between the two San Luis Obispo shelter sites.*

The MLM Shelter provides San Luis Obispo's only free dinner to Shelter clients and other hungry community members. A total of 64,617 meals were served in the 12 months ending June 30, 2014; 5,737

of those meals were served to "diner/dashers" (persons who came for dinner and a shower but not a shelter bed). Averages of 96.4 dinners were served each night in 2013-14. 3,668 shelter nights were provided to children, an increase of 28% over 2012-13. That equates to an average of 10.7 children per night, up from 7.9 per night in 2012-13.

In addition to the above mentioned data, funding over the past few years has remained level, with a slight decrease in some years, while the need for services has risen. An increase in awarded funding will be essential to maintain the level of services that are required to meet the challenge of the growing population of those in need.

If not funded: *San Luis Obispo County's high cost of living and high cost of housing have heavily impacted the local homeless. Until there is an adequate supply of affordable housing in the county, emergency sheltering will be a fact of life. CAPSLO's MLM Shelter has been serving the county's homeless since 1989. Without CDBG funding from the City and County of San Luis Obispo and other cities, the Shelter would be forced to close. The MLM Shelter is not just the largest homeless shelter facility in the county and the only free dinner in the City of San Luis Obispo, it is also the "anchor" program for many providers and services. Without an overnight shelter to meet the most basic needs of the homeless, outreach and assistance services are disrupted and ongoing stabilization and self-sufficiency efforts are undermined.*

7. Please describe the specific organizational method used to implement the proposed project or program (single or multiple group, public agency, non-profit, for-profit, experience in operating similar programs, etc.):

As the county's Community Action Agency, CAPSLO has provided critical services to low-income county residents since 1965 and, since 1989, has operated the MLM Shelter in San Luis Obispo. We collaborate with the Interfaith Coalition for the Homeless, the City and County of San Luis Obispo, the SLO Housing Authority, the SLO Supportive Housing Consortium, the Homeless Services Coordinating Council, SLO People's Kitchen, and numerous public and private health and human service agencies to provide services to homeless clients. Key community partners include County Department of Social Services, County Mental Health, County Drug and Alcohol, Community Health Centers of the Central Coast, Transitions-Mental Health Association, AmeriCorps, and Cal Poly State University.

To support the countywide continuum of homeless services, CAPSLO contributed state funding toward creation of the county's 10-Year Plan to End Chronic Homelessness. This plan will help guide homeless service delivery for the next decade, and will benefit all communities in the county as well as the network of public, private and faith-based partners and service providers.

The agency currently collects all data using the Homeless Management Information System (HMIS), required by HUD, for this project. The agency collects data for the case management projects and is working with the county to expand the collection to this and other projects. The CAPSLO Homeless Services Data Analyst is responsible for getting the information on all case managed clients who are being served under a HUD grant. Every other week, a case conference is held and it is decided then what clients will be accepted to the program, and which clients will be closed out. During the following week, the Data Analyst meets one-on-one with each of the Case Managers to review the client file for all opening and closing clients, for completeness, accuracy, and to verify that the client is eligible for services under the program, and that all documentation is in place. The Data Analyst then enters all of

the necessary information into HMIS. Additionally, case notes are emailed to the Data Analyst on a regular basis in order to get all of the services that the client is receiving entered into HMIS. With the information entered into the system, HMIS is capable of running reports to be given to the county and ultimately HUD.

8. **Does the project require the issuance of a permit (from local, state or federal agencies)?**
   Yes ☐ No ☒

   a. If yes, please identify the permits necessary to complete the project.

   b. Have the necessary permits been issued? Please provide proof of permit issuance.

   c. If permits are required but not yet obtained, when will the permits be issued?

NATIONAL OBJECTIVES CRITERIA

9. **Does the proposed project or activity meet one of the three national objectives of the CDBG program? Please check one of the objectives below that applies to the proposal, and explain how the project or activity meets that national objective.**

   a. __X__ Benefits low- and moderate-income persons as defined by the U.S. Department of Housing and Urban Development (HUD). **NOTE:** To meet this national objective, the proposed activity must benefit a specific clientele or residents in a particular area of the County or participating city, at least 51 percent of who are low- and moderate-income persons.

   Select one:
   ☐ **Low/Moderate-Income Area Benefit** – The project serves only a limited area which is proven by 2000 Census data or survey to be a predominately (51% or more) low/moderate-income area. Applicants choosing this category must be able to prove their project/activity primarily benefits low/moderate-income households.
   ☒ **Low/Moderate-Income Limited Clientele** – The project benefits a specific group of people (rather than all areas in a particular area), at least 51% of whom are low/moderate-income persons;. Note: Income verification for clients must be provided for this category. The following groups are presumed to be low/moderate-income: abused children; elderly persons; battered spouses; homeless persons; adults meeting census definition of severely disabled; persons living with AIDS; and migrant farm workers
   ☐ **Low/Moderate-Income Housing** – The project adds or improves permanent residential structures that will be/are occupied by low/moderate-income households upon completion.
   ☐ **Low/Moderate-Income Jobs** – The project creates or retains permanents jobs, at least 51% of which are taken by low/moderate-income persons or considered to be available to low/moderate-income persons.

   Explain: *Persons served at the MLM and ICH shelter sites are all homeless including many persons with a physical and/or mental disability.*

b. _____ Aids in the prevention or elimination of slums or blight. **NOTE:** To meet this national objective, the proposed activity must be within a designated slum or blighted area and must be designed to address one or more conditions that contributed to the deterioration of the area.

Explain:

Select one:

☐ **Addressing Slums or Blight on an Area Basis** -

☐ **Addressing Slums or Blight on a Spot** Basis – This project will prevent or eliminate specific conditions of blight or physical decay. Activities are limited to clearance, historic preservation, rehabilitation of buildings, but only to the extent necessary to eliminate conditions detrimental to public health and safety.

Is the project located in a Redevelopment Area? Yes ☐ No ☐

If yes, attach a map of the area with the site highlighted, and provide the Redevelopment Project Area (excerpts accepted) which documents the existence of slum/blight. Also, document the specific redevelopment objectives pertaining to the proposed project.

c. _____ Meets community development needs having a particular urgency where existing conditions pose a serious and immediate threat to the health or welfare of the community, and no other funding sources are available, i.e., a major catastrophe such as a flood or earthquake. **NOTE:** To meet this national objective, the proposed activity must deal with major catastrophes or emergencies such as floods or earthquakes.

Explain:

10. If the project or program is designed to meet the national objective of providing benefit to low- and moderate-income persons, please estimate the number of <u>unduplicated</u> number of persons (or households) to benefit from the project and break that estimate down by income group (unduplicated means the number who are served, i.e., the grant will allow 25 children to participate in preschool – not 25 children x 5 days x 52 weeks = 6,500).

a. Total number of persons or households who will benefit from the project or program (regardless of income group):

___850___ Persons/households (circle the applicable unit)

b. Of the total number of persons or households entered above, how many will be low-income (earning 51% - 80% or less of the County median-income)?

___20___ Persons/households (circle the applicable unit)

c. Of the total number of persons or households entered above, how many will be very low-income (earning 50% or less of the County median-income)?

___830___ Persons/households (circle the applicable unit)

11. Who are the clients of your organization? (Example: low- to moderate-income persons, elderly persons, severely disabled persons, migrant farm workers, battered spouses, etc.)

The MLM Shelter program serves homeless men, women, and children as space is available. The client population includes youth accompanied by a parent or guardian (from newborns to teenagers), and adults including seniors. We serve persons of all ages, genders, races, and ethnicities without discrimination. This includes the mentally ill, developmentally and physically disabled, persons suffering from or in recovery from substance abuse, veterans, migrant farmworkers, and the working poor. We serve the chronically homeless, situational-homeless, unemployed, under-employed, uninsured, and underinsured.

12. How will the clients benefit from this project?

Shelter clients have "one stop" access to a broad range of services to help them stabilize their lives and move toward greater self-sufficiency. As well as providing emergency shelter, the CAPSLO Homeless Services program provides a holistic framework of services to help meet client needs. Comprehensive services include community meal programs at the MLM Shelter and Prado Day Center, daytime services at the Day Center, linkages and advocacy support, and access to intensive case management and permanent housing.

Without these emergency shelter services, clients would congregate in public places or disperse throughout local neighborhoods, impacting law enforcement and other public agencies.

13. If your project serves homeless households, please describe how your program coordinates with other continuum of care projects and entities and how it aligns with the San Luis Obispo Countywide 10-Year Plan to Homelessness.

CAPSLO's Homeless Services Division works closely with other agencies that provide supplemental services, including: Tri-Counties Regional Center, Department of Social Services, Independent Living Resource Center, Salvation Army, Catholic Charities, Loaves and Fishes, SLO Housing Authority, local VA Service Center, and local churches. Being the provider for a complement of services enables our clients to seamlessly receive the benefits within one organization, as well as having the ability to be referred to multiple agencies as needed. As a member the County Continuum of Care (CoC) CAPSLO partially funded the development of the 10-year plan and is an active participant in its implementation. CAPSLO also has developed other CoC projects that dovetail with this project and aides in the continued effort to help homeless individuals and families moved toward self-sufficiency.

No single person, agency or government body can bring an end to veteran homelessness – it will take a comprehensive and coordinated approach among all organizations that serve this population. This is evident in the national strategy through the US Interagency Council on Homelessness and HUD. CAPSLO and its local partners seek to emulate this collaborative approach. Each of the partners has its specific expertise in dealing with homeless individuals and families. CDBG funding will enable us to build on this expertise and continue the services we provide. The end result will be a more client centered, "wraparound" service aimed at helping homeless individuals and families moved toward self-sufficiency, stability, and subsequent success.

The program looks to support all of the national priorities. The goals of CAPSLO's "Housing Through Case Management" program are in sync with the key components of HUD's mandate to fund programs that promote moving homeless clients into housing and ensuring that they receive public benefits and develop the skills needed to live independently. CAPSLO's Homeless Services programs (Maxine Lewis Memorial Shelter, Prado Day Center and Case Management) work with HUD's target population on a countywide basis and have an established program of cooperation and linkages with other agencies and organizations that provide services to homeless persons.

In addition to being consistent with the Federal Strategic Plan, CAPSLO is an active participant in the countywide process that developed County's 10-Year Plan to End Homelessness. Numerous Partnership staff members have participated thus far, contributing their knowledge, experience and goodwill to ensure a successful outcome. CAPSLO generated the state discretionary grant and the City of San Luis Obispo CDBG grant that were used by the County to pay for facilitation of the process to develop our local 10-Year Plan. The "Housing Through Case Management" services are consistent with the Consolidated Plan. The 2009 Action Year of the 2005 Consolidated Plan shows these priorities for Addressing Homelessness:

Priority 1: Provide needed emergency shelter facilities and related services.
Priority 2: Prevent homelessness by enabling people to obtain or retain decent affordable housing and supportive services.

Now that the 10-Year Plan is finalized, CAPSLO is working diligently to advocate for, support and comply with service delivery philosophies, strategies, mandates, and performance standards that are setting a path to end all types of homelessness.

BENEFICIARY DATA

NOTE: You are required to provide beneficiary data at the end of each quarter and year end data of the fiscal year.

14. How do you collect demographic data on the beneficiaries of the proposed project or program? (Example: racial/ethnic characteristics)

Demographics are collected during the client intake process using the California Department of Community Services and Development demographic form.

15. How do you document and maintain income status of each client in compliance with HUD regulations? (Example: very low, low- and moderate-income)

As part of the client intake process, client income is verified using the federal poverty guidelines.

16. Provide the following information for the persons in your organization responsible for the preparation and submittal of the quarterly reports and for collecting and reporting the beneficiary data to the Urban County.

Contact person/title: Robert J. Ellis, Planning & Program Development Specialist III

Phone number: (805) 544-4355 Ext. 445

E-mail address: bellis@capslo.org

ATTACHMENT 3

FINANCIAL INFORMATION

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects please provide the required additional budget information on BUDGET FORM A and BUDGET FORM B attached to the back of this application.

17. Total amount of CDBG funds requested: $ 271,361

18. Please identify the cities to which you are applying. If you are applying to one or more cities, please provide a copy of the application to the County by the application deadline. If you are requesting CDBG funds from more than one city, please break down the amount shown above by the city listed below. The minimum requested CDBG amount is $8,000 for public services from one or more jurisdictions.

City of Arroyo Grande:	$8,600	City of Paso Robles:	
City of Pismo Beach:		City of San Luis Obispo:	$127,081
City of Atascadero:		County of San Luis Obispo:	$127,080
City of Morro Bay:	$8,600		

19. Please describe the budget for the proposed project or program. Itemize all sources of funding expected to be available and used for this project

Please see Exhibit B attached

20. How do you plan to fund the operation and maintenance costs (if any) associated with this project? Are these funds available now? If not, when will they be available? And from what sources?

CDBG funds are the primary mainstream resource used to support operation and maintenance of the MLM Shelter program. Other funding shown in Exhibit B also supports the shelter operation and is received throughout the year. Every effort is made to keep costs low by generating volunteer and in-kind support. The Shell Beach kitchen prepares the dinner on weekdays; community groups provide dinner on weekends and holidays. The shelter's dinner program annually involves several dozen community groups and local families and/or individuals. We are always looking for new meal providers in order to keep program costs as low as possible. In addition to the volunteer groups that provide dinner on weekends and holidays, volunteers are used to help serve dinner every night and to be "evening friends".

Volunteers and service groups such as California Conversation Corps also help with special events such as shelter repairs/upgrades as well as deep cleaning and landscaping, or take on special projects such as "shopping" at the Food Bank or helping with the "homework club". Community motels donate towels, sheets and blankets to the program; other local businesses contribute to "blanket and pillow" drives to benefit shelter clients.

We are also constantly looking at ways to diversify resources. CAPSLO's Homeless Advisory Committee is active in holding fundraising events. CAPSLO also engaged resource development consultants who created a long-range Financial Development Plan that will expand the agency's capacity to generate diversified programmatic and capital development resources. That plan was adopted by the CAPSLO (then EOC) Board in October 2007.

21. Will CDBG funds be used to match/leverage other funds? List below funding sources and amounts and identify award dates of these sources.

CDBG funds are the primary mainstream resources used to support shelter operations; CDBG and ESG funds are used to leverage all other local and private resources. Please see Exhibit B.

I certify that the information in this application is true and accurate to the best of my knowledge and ability.

Signature — Date: 10/14/14

Elizabeth "Biz" Steinberg — CEO

Printed or typed name — Title

ATTACHMENT 3

Exhibit B
Community Action Partnership of SLO County, Inc.
Maxine Lewis Memorial Shelter
Proposed Budget FYE June 30, 2016

	Budget
Source of Funds:	
CDBG Funds Requested- SLO County	$ 127,080
CDBG Funds Requested- SLO City	127,081
CDBG Funds Requested- Cities: AG	8,600
CDBG Funds Requested- Cities: MB	8,600
Total CDBG Funds Requested	**271,361**
Non-CDBG Funds Requested:	
SLO County ESG	42,091
SLO County General Fund - Shelter	95,211
SLO County General Fund - Safe Parking	10,000
SLO City General Fund - Safe Parking	10,000
FEMA	15,000
City of Pismo Beach	2,200
Donations	93,130
Total Funds	**$ 538,993**
Expenditures:	
Salaries	$ 261,474
Fringe Benefits	115,173
Office Expense	2,938
Transportation	12,157
Utilities	21,101
Food	13,303
Laundry	22,495
Maintenance & Repairs	12,855
Program Supplies	19,911
Advertising, Recruiting and Training	1,525
Miscellaneous	16,136
Indirect & Administrative	39,925
Total Expenditures	**$ 538,993**
Excess (Shortfall) of Funds over Expenditures	$ -

ATTACHMENT 3

Exhibit B
Community Action Partnership of SLO County, Inc.
Maxine Lewis Memorial Shelter
Budget FYE June 30, 2015

	Budget
Source of Funds:	
CDBG Funds- SLO County	$ 74,898
CDBG Funds- SLO City	74,767
Total CDBG Funds	**149,665**
Non-CDBG Funds:	
SLO County ESG	44,307
SLO County General Fund - Shelter	50,694
SLO County General Fund - Safe Parking	10,000
SLO City General Fund - Safe Parking	10,000
Cities of San Luis Obispo General Fund	46,000
FEMA	21,000
United Way or Corp Foundations	2,500
City of Pismo Beach	2,200
Agency CSBG support	56,732
Donations	140,844
Total Funds	**$ 533,942**
Expenditures:	
Salaries	$ 257,609
Fringe Benefits	109,689
Office Expense	2,757
Transportation	11,578
Utilities	20,486
Food	12,916
Laundry	21,840
Maintenance & Repairs	18,854
Program Supplies	19,331
Advertising, Recruiting and Training	1,677
Miscellaneous	21,856
Indirect & Administrative	35,349
Total Expenditures	**$ 533,942**
Excess (Shortfall) of Funds over Expenditures	$ -

ATTACHMENT 4

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM APPLICATION FOR THE 2015 PROGRAM YEAR

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

Organization Name: **Community Action Partnership of San Luis Obispo County, Inc.**
(Attach additional sheets if necessary)

To be considered for CDBG assistance, a completed application with any necessary exhibits, budgets or beneficiary data is required. **PLEASE CAREFULLY READ ALL OF THE INFORMATION IN THIS APPLICATION**. Applications can be mailed to one of the participating jurisdictions listed in this application or to: Suzan Ehdaie, Department of Planning and Building, 976 Osos Street, Room 300, San Luis Obispo, CA, 93408 or hand delivered to Suzan Ehdaie at 1035 Palm Street, Room 370, San Luis Obispo, CA, faxed to (805) 781-5624, or e-mailed to sehdaie@co.slo.ca.us. **The application deadline is 5:00 P.M., Tuesday, October 15, 2014.** Applications must be received by the County or one of the participating cities (Arroyo Grande, Pismo Beach, Atascadero, Morro Bay, Paso Robles, San Luis Obispo) prior to close of the business day. **POSTMARKED MAIL RECEIVED AFTER THE DEADLINE WILL NOT BE ACCEPTED.**

NOTES:

(1) Please review the CDBG regulations and guidelines and the Request for Proposals before completing your proposal. The CDBG regulations, under 24 CFR 570, are available at www.sloplanning.org under "Federal HUD Grants."

(2) **HMIS Reporting for 2015 homeless services, housing and shelter** - All homeless service providers applying for ESG funds to assist, house or shelter the homeless must identify and demonstrate its capacity to participate in the County of San Luis Obispo Homeless Management Information System (HMIS) to provide: personnel for data entry, user licensing, and hardware and software necessary for compatibility with HMIS. HMIS is an electronic data collection system that stores client level information about persons who access the homeless services system in a Continuum of Care, and reports aggregate data for the County as per the U.S. Department of Housing and Urban Development's (HUD) Data Standards. HUD updated its data standards in 2014, and the new standards are in effect starting October 1, 2014. . More information can be found at https://www.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual.pdf and https://www.hudexchange.info/resources/documents/HMIS-Data-Dictionary.pdf.

(3) The Project Proposal submitted to the County of San Luis Obispo shall be examined in relation to the County's community development goals and funding priorities as presented in the Urban County of San Luis Obispo 2015-2019 Consolidated Plan. The draft Consolidated Plan will be available at www.sloplanning.org in February 2015. The Housing and Economic Development team will make draft funding recommendations using the rating criteria stated in the 2015 Request for Proposals as well as other information including but not limited to: the County Board of Supervisors, recommendations from the Homeless Services Oversight Council, online "needs" survey, other participating jurisdictions of the Urban County of San Luis Obispo, identified needs that could be addressed by the grant funds, consistency with goals and priorities in the upcoming 2015-2019 Consolidated Plan and the Ten Year Plan to End Homelessness, results of the Needs Workshops, working knowledge of the project and organization, and availability of limited funds.

ATTACHMENT 4

Please attach additional sheets for more detailed information of your proposed project or program for any of the questions below.

CONTACT INFORMATION

1. Name and mailing address of applicant organization, with contact person, phone and fax numbers, and e-mail address:

Name: *Community Action Partnership of San Luis Obispo County, Inc. (CAPSLO)*

Address (mailing and physical address requested if different):
1030 Southwood Drive,
San Luis Obispo, CA 93401

Contact person/title: *Elizabeth "Biz" Steinberg, Chief Executive Officer*

Phone: *(805) 544-4355*

Fax: *(805) 549-8388*

E-mail address: *esteinberg@capslo.org*

Organization's DUNS number: *0589019500000*
If you are awarded CDBG funds or your proposal involves economic development, i.e., directly benefit a business, private property owner, business, involves façade improvements, provide technical assistance to a new or existing business, job creation, loan guarantee, the beneficiary must obtain a Dun and Bradsteet (DUNS) number that must be reported to HUD. Please contact Suzan Ehdaie, (805) 781-4979, sehdaie@slo.co.ca.us for information on how to obtain a DUNS number prior to incurring and obligating the federal funds.

Is your agency currently participating in HMIS? Yes

If not, does your agency have the capacity to participate in HMIS? If yes, how so?
All data relating to the project will be collected and reported using the HMIS system. The CAPSLO Homeless Services Data Analyst is responsible for getting the information on all case managed clients who are being served under all grants requiring HMIS. Every other week, a case conference is held and it is decided then what clients will be accepted to the program, and which clients will be closed out. During the following week, the Data Analyst meets one on one with each of the Case Managers to review the client file for all opening and closing clients, for completeness, accuracy, and to verify that the client is eligible for services under the program, and that all documentation is in place. The Data Analyst then enters all of the necessary information into HMIS. Additionally, case notes are emailed to the Data Analyst on a regular basis in order to get all of the services that the client is receiving entered into HMIS. With the information entered into the system, HMIS is capable of running reports to be given to the county.

ATTACHMENT 4

PROJECT DESCRIPTION

2. **Title/name/address of proposed project or program:**

   Prado Day Center
   43 Prado Road
   San Luis Obispo, CA 93401

3. **Please describe the proposed project or program**. In one or two short paragraphs, include a brief project/program description, the groups who will benefit and an explanation of how they will benefit from the proposed project or program. For projects, describe the location of the project (be as specific as possible, e.g. street address). For programs, state the location from which the program will be operated and describe the geographic area served by the program. Also, please include a schedule of project/program milestones.

   Program description: *Since Prado Day Center opened in 1997, it has become the major point of daytime contact for local providers to serve the homeless and working poor families and individuals. The Center operates seven days a week, year-round, providing breakfast and lunch to an average daily census of 84 persons and other services to a daily average of 132 persons. Prado Day Center offers restrooms and shower facilities; laundry service; local phone use; mail service; newspapers for employment listings; a reading/writing area; children's playroom and play yard; a community garden; and bus tokens.*

   A hot lunch is served daily by the People's Kitchen at Prado every day, year-round and volunteers have provided a breakfast program for those who do not eat breakfast at the Maxine Lewis Memorial (MLM) Shelter. Other services currently delivered at Prado on weekdays include TB testing and basic health screening, drug/alcohol meetings through CHC once a week, mental health outreach 3 hours a week, CAPSLO Case Management 7 days a week, CAPSLO Health Services Education and Information once a month, CHC Medical Case Management two days a week, Transitional Housing Outreach and Information twice a month, Department of Social Services information and questions once a week, free legal assistance once a month and information/referral to a wide range of community benefits and services. The Prado Day Center has proven to be a much needed community facility. Numerous volunteers assist with daily Center activities including reception, laundry and client interaction.

   The children's playroom and fenced play yard offer toys, books and play equipment, to provide vulnerable children with respite from their difficult lives and an opportunity to play and enjoy themselves.

   The Prado Day Center also functions as a Warming Station for individuals and families during inclement weather situations. The Maxine Lewis Memorial Shelter is the only night shelter in the city and only has approximately 50 beds which forces staff to turn away people nightly. This is particularly problematic during inclement weather. As a response the Prado Day Center extends its daytime hours into the evening so that families and single adults are not forced to sleep in the rain and severe cold. During months when the Warming Station was necessary an average of 198 individuals were provided services per month. On nights that the Warming Station was open during 2013-14 397 individuals sought shelter.

Who/how will benefit: ***Who:*** *Homeless individuals and/or families will benefit from the services provided as a result of receiving this funding. According to the 2013 Homeless Enumeration Report, 2,186 county residents were identified as homeless. It is estimated that 3,497 persons are homeless at some point in time over the course of a year. Of those surveyed in 2013 who were homeless in San Luis Obispo County:*

- *50% reported this was not their first time being homeless.*
- *47% reported they had been homeless for a year or more during this current episode.*
- *Their mean age is 42.*
- *69% are White/Caucasian, with 14% Hispanic/Latino.*
- *6% identified themselves as bisexual, gay or lesbian.*
- *67% are males and 33% are females.*
- *33% had some college education or college degree.*
- *71% were living in SLO Co. before becoming homeless.*
- *12% reported being a veteran.*

How: *The Prado Day Center was created to provide day services that complement the MLM Shelter night services. Each day at 7:30am, clients must leave the MLM Shelter until it reopens at 5:00pm. Prior to creation of the Prado Day Center, homeless community members spent the day in places such as Mission Plaza, public parks, the City/County Library, or on the streets. Being on the streets exposed the homeless to weather and temperature extremes. If their appearance identified them as homeless, they might be subjected to public disapproval or scorn. Since Prado Day Center opened, homeless residents have had a safe, supportive place off the streets to go during the day, and a place that offers assistance to help them assess their needs, access essential services, and re-establish their lives.*

Location: *Prado Day Center is in the City of San Luis Obispo but serves the entire county.*

Milestones: *Through Prado's relationships and partnerships with other service sites and providers, many of the low-income persons served achieve permanent housing, more stable employment, and family functioning. Each family's personal achievements are program milestones. All services are ongoing throughout the program year, and approximately 1,500 persons will receive one or more days of Prado Day Center services and assistance during the coming year. Each day of service is also considered to be a milestone.*

One of the strongest aspects of Prado's service strategy is the wide range of community services provided on-site. The free breakfast and lunch, showers, and laundry services draw clients to the site. Caring staff offer support and incentives that motivate clients to meet with providers who offer critical services. Social interaction between clients at the Center supports their healthy re-integration into the community and provides a safe environment for practicing appropriate behavior. The anecdotal outcomes reported by clients describe a return to "normal", "the means to stop self-defeating cycles" and the support needed to "break through...negativity and get on with creating a productive life."

4. Will the services offered by your organization increase or expand as a result of the CDBG assistance? If yes, please answer the following questions:

a. What new programs or services will be provided? *None*

b. Describe how existing programs or services will be expanded and what percentage of an increase is expected?

CDBG funds will enable the Prado Day Center to maintain its current level of service. The Center is always looking for additional or enhanced vocational, educational or support services to bring on-site.

5. Check any of the following eligible activity categories that apply to the proposed project or program: (Refer to CDBG regulations and the Guide to Eligible CDBG Activities).

____ Acquisition of real property* ____ Disposition of real property

____ Public facilities and improvements (may include acquisition, construction, reconstruction, rehabilitation or installation)* and/or **

____ Privately owned utilities ____ Clearance and remediation activities**

_X_ Public services ____ Interim assistance

____ Relocation of individuals, families, businesses, non-profit organizations, and/or farms

____ Loss of rental income ____ Removal of architectural barriers

____ Housing rehabilitation**

____ New housing construction (under limited circumstances)

____ Homeownership assistance ____ Housing services

____ Code enforcement ____ Historic preservation**

____ Commercial or industrial rehabilitation** ____ Special economic development

____ Technical assistance and planning studies

* **Relocation**: Any project that involves the acquisition of property and/or rehabilitation and is funded in whole or in part with federal funds, even if the federal funds are not used for the acquisition itself, is subject to federal requirements connected to acquisition and relocation. A project cannot be broken into separate "projects" in order to avoid the federal requirements connected with property acquisition and relocation. Any questions concerning whether the relocation regulations apply to a specific property acquisition project should be directed to the County Housing and Economic Development staff before any action is taken on the project.

If HUD funded project will cause a household or a business to move, evenly temporarily, the relocation regulations will apply.

Along with application submit:

- Estimate of relocation cost (moving costs, subsidy amount for suitable replacement dwelling)
- Letter to owner of voluntary acquisition, plus proof of delivery to owner.
- General Information letter to tenants (both business and residential tenants), plus proof of delivery to all).
- List of tenants (both business and residential tenants) at the time of application submittal.
- Refer to SLO Col website for sample relocation letters.

** **Lead based paint**: If HUD funded project involves acquisition or rehabilitation of a residential units that was built in 1978 or earlier, then Lead-Based paint regulations will apply.

- Along with application submit an estimate of costs for LBP work, provided by certified LBP consultant. Or statement by LBP consultant explaining that project is exempt.
- Include any temporary housing costs.

6. Describe the need and the degree of urgency for the proposed project or program. What would be the consequences if the proposed project or program is not funded in the next year?

The Prado Day Center is heavily utilized, demonstrating the ongoing need for services. In the 12 months ending June 30, 2014, Prado provided one or more days of respite and services to 1,497 unduplicated persons; 581 (39%) of these were women and children; 855 (57%) of all adults were disabled. During the same period, clients received 42,409 total service units through 7,897 contacts made with community service providers at the Center. 28,209 breakfasts were served for an average of 77 persons a day receiving breakfast at the Center. The Center also hosts the People's Kitchen, the only free lunch in San Luis Obispo, which served an average of 86 persons a day in the 12 months ending June 30, 2014.

The outcomes achieved in our homeless programs represent incremental progress toward increased personal and community well-being. At the personal level this means a homeless person facing their problems, accepting help, developing a life-changing plan, and working in partnership with shelter staff to take a series of small, manageable steps that lead to positive change. At the community level this means reducing the impacts on agencies and systems such as law enforcement, the courts, hospital emergency rooms, mental health and drug/alcohol resources, and child welfare services. An average of 116 persons per day used Center services in the 12 months ending June 30, 2014.

If not funded: *The Friends of Prado Day Center is responsible for community fundraising to support the Center, and CAPSLO is responsible for raising public funding. Without CDBG funding from the County of San Luis Obispo and General Funds (in lieu of CDBG funds) from the City, the Prado Day Center would be forced to reduce days and/or hours of operation thereby limiting services at the county's only day center for homeless individuals.*

Without the Day Center, homeless men, women, and families would have no option but to return to the more public areas of the city during the daytime hours, where they often go without food, basic services, and assistance to maintain and re-establish their lives.

ATTACHMENT 4

7. Please describe the specific organizational method used to implement the proposed project or program (single or multiple group, public agency, non-profit, for-profit, experience in operating similar programs, etc.):

As the county's Community Action Agency, CAPSLO has provided critical services to low-income county residents since 1965 and, since 1989, has operated the MLM Shelter in San Luis Obispo. We collaborate with the Interfaith Coalition for the Homeless, the City and County of San Luis Obispo, the SLO Housing Authority, the SLO Supportive Housing Consortium, the Homeless Services Coordinating Council, SLO People's Kitchen, and numerous public and private health and human service agencies to provide services to homeless clients. Key community partners include County Department of Social Services, County Mental Health, Community Health Centers of the Central Coast, Transitions-Mental Health Association, Cal Poly State University, and Beyond Shelter.

To support the countywide continuum of homeless services, CAPSLO contributed state funding toward creation of the county's 10-Year Plan to End Chronic Homelessness. This plan will help guide homeless service delivery for the next decade, and will benefit all communities in the county as well as the network of public, private and faith-based partners and service providers.

The agency currently collects all data using the Homeless Management Information System (HMIS), required by HUD, for this project. The agency currently collects data for the case management projects and is working with the county to expand the collection to this and other projects. The CAPSLO Homeless Services Data Analyst is responsible for getting the information on all case managed clients who are being served under a HUD grant. Every other week, a case conference is held and it is decided then which clients will be accepted to the program, and which clients will be closed out. During the following week, the Data Analyst meets one on one with each of the Case Managers to review the client file for all opening and closing clients, for completeness, accuracy, to verify that the client is eligible for services under the program, and that all documentation is in place. The Data Analyst then enters all of the necessary information into HMIS. Additionally, case notes are emailed to the Data Analyst on a regular basis in order to get all of the services that the client is receiving entered into HMIS. With the information entered into the system, HMIS is capable of running reports to be given to the county and ultimately HUD.

8. Does the project require the issuance of a permit (from local, state or federal agencies)?

Yes ☐ No ☒

a. If yes, please identify the permits necessary to complete the project.

b. Have the necessary permits been issued? Please provide proof of permit issuance.

c. If permits are required but not yet obtained, when will the permits be issued?

ATTACHMENT 4

NATIONAL OBJECTIVES CRITERIA

9. Does the proposed project or activity meet one of the three national objectives of the CDBG program? Please check one of the objectives below that applies to the proposal, and explain how the project or activity meets that national objective.

a. __X__ Benefits low- and moderate-income persons as defined by the U.S. Department of Housing and Urban Development (HUD). **NOTE:** To meet this national objective, the proposed activity must benefit a specific clientele or residents in a particular area of the County or participating city, at least 51 percent of who are low- and moderate-income persons.

Select one:

☐ **Low/Moderate-Income Area Benefit** – The project serves only a limited area which is proven by 2000 Census data or survey to be a predominately (51% or more) low/moderate-income area. Applicants choosing this category must be able to prove their project/activity primarily benefits low/moderate-income households.

☒ **Low/Moderate-Income Limited Clientele** – The project benefits a specific group of people (rather than all areas in a particular area), at least 51% of whom are low/moderate-income persons;. Note: Income verification for clients must be provided for this category. The following groups are presumed to be low/moderate-income: abused children; elderly persons; battered spouses; homeless persons; adults meeting census definition of severely disabled; persons living with AIDS; and migrant farm workers

☐ **Low/Moderate-Income Housing** – The project adds or improves permanent residential structures that will be/are occupied by low/moderate-income households upon completion.

☐ **Low/Moderate-Income Jobs** – The project creates or retains permanents jobs, at least 51% of which are taken by low/moderate-income persons or considered to be available to low/moderate-income persons.

Explain: *Persons served at the Prado Day Center are all homeless including many persons with a physical and/or mental disability.*

b. _____ Aids in the prevention or elimination of slums or blight. **NOTE:** To meet this national objective, the proposed activity must be within a designated slum or blighted area and must be designed to address one or more conditions that contributed to the deterioration of the area.

Explain:

Select one:

☐ **Addressing Slums or Blight on an Area Basis** -

☐ **Addressing Slums or Blight on a Spot** Basis – This project will prevent or eliminate specific conditions of blight or physical decay. Activities are limited to clearance, historic preservation,

rehabilitation of buildings, but only to the extent necessary to eliminate conditions detrimental to public health and safety.

Is the project located in a Redevelopment Area? Yes ☐ No ☐
If yes, attach a map of the area with the site highlighted, and provide the Redevelopment Project Area (excerpts accepted) which documents the existence of slum/blight. Also, document the specific redevelopment objectives pertaining to the proposed project.

c. _____ Meets community development needs having a particular urgency where existing conditions pose a serious and immediate threat to the health or welfare of the community, and no other funding sources are available, i.e., a major catastrophe such as a flood or earthquake. **NOTE:** To meet this national objective, the proposed activity must deal with major catastrophes or emergencies such as floods or earthquakes.

Explain:

10. If the project or program is designed to meet the national objective of providing benefit to low- and moderate-income persons, please estimate the number of <u>unduplicated</u> number of persons (or households) to benefit from the project and break that estimate down by income group (unduplicated means the number who are served, i.e., the grant will allow 25 children to participate in preschool – not 25 children x 5 days x 52 weeks = 6,500).

a. Total number of persons or households who will benefit from the project or program (regardless of income group):

1550 Persons/households (circle the applicable unit)

b. Of the total number of persons or households entered above, how many will be low-income (earning 51% - 80% or less of the County median-income)?

115 Persons/households (circle the applicable unit)

c. Of the total number of persons or households entered above, how many will be very low-income (earning 50% or less of the County median-income)?

1435 Persons/households (circle the applicable unit)

11. Who are the clients of your organization? (Example: low- to moderate-income persons, elderly persons, severely disabled persons, migrant farm workers, battered spouses, etc.)

The Prado Day Center serves homeless and working poor men, women and children. The client population includes youth accompanied by a parent or guardian (from newborns to teenagers), and adults including seniors. Persons with physical or mental disabilities are served so long as they can care for themselves and maintain appropriately in a congregate setting. We serve persons of all ages, genders, races, and ethnicities without discrimination. This includes the mentally ill, developmentally and physically disabled, persons suffering from or in recovery from substance abuse, veterans, migrant farmworkers, and the working poor. We serve the chronically homeless, situationally-homeless, unemployed, under-employed, uninsured, and underinsured.

12. How will the clients benefit from this project?

As well as providing a safe place to go during the day, the Prado Day Center provides a holistic framework of services to help meet client needs. Comprehensive services include a community breakfast and lunch, on-site services, linkages and advocacy support, and access to intensive case management. As previously mentioned, the Center is the major point of daytime contact for local providers to serve homeless and working poor families and individuals. The Prado Day Center also serves as Warming Station for individuals and families during periods of inclement weather. Other services currently delivered on weekdays at Prado Day Center include drug/alcohol meetings through CHC once a week, mental health outreach 3 hours a week, CAPSLO Case Management 7 days a week, CAPSLO Health Services Education and Information once a month, CHC Medical Case Management two days a week, Transitional Housing Outreach and Information twice a month, Department of Social Services information and questions once a week, free legal assistance once a month, and information/referral to a wide range of community benefits and services.

13. If your project serves homeless households, please describe how your program coordinates with other continuum of care projects and entities and how it aligns with the San Luis Obispo Countywide 10-Year Plan to Homelessness.

CAPSLO's Homeless Services Division works closely with other agencies that provide supplemental services, including: Tri-Counties Regional Center, Department of Social Services, Independent Living Resource Center, Salvation Army, Catholic Charities, Loaves and Fishes, SLO Housing Authority, local VA Service Center, and local churches. Being the provider for a complement of services enables our clients to seamlessly receive the benefits within one organization, as well as having the ability to be referred to multiple agencies as needed. As a member the County Continuum of Care (CoC) CAPSLO partially funded the development of the 10-year plan and is an active participant in its implementation. CAPSLO also has developed other CoC projects that dovetail with this project and aides in the continued effort to help homeless individuals and families moved toward self-sufficiency.

No single person, agency or government body can bring an end to veteran homelessness – it will take a comprehensive and coordinated approach among all organizations that serve this population. This is evident in the national strategy through the US Interagency Council on Homelessness and HUD. CAPSLO and its local partners seek to emulate this collaborative approach. Each of the partners has its specific expertise in dealing with homeless individuals and families. CDBG funding will enable us to build on this expertise and continue the services we provide. The end result will be a more client

centered, "wraparound" service aimed at helping homeless individuals and families moved toward self-sufficiency, stability, and subsequent success.

The program looks to support all of the national priorities. The goals of the Partnership's "Housing Through Case Management" program are in sync with the key components of HUD's mandate to fund programs that promote moving homeless clients into housing and ensuring that they receive public benefits and develop the skills needed to live independently. The Partnership's Homeless Services programs (Maxine Lewis Memorial Shelter, Prado Day Center and Case Management) work with HUD's target population on a countywide basis and have an established program of cooperation and linkages with other agencies and organizations that provide services to homeless persons.

In addition to being consistent with the Federal Strategic Plan, the Partnership is an active participant in the countywide process that developed County's 10-Year Plan to End Homelessness. Numerous Partnership staff members have participated thus far, contributing their knowledge, experience and goodwill to ensure a successful outcome. The Partnership generated the state discretionary grant and the City of San Luis Obispo CDBG grant that were used by the County to pay for facilitation of the process to develop our local 10-Year Plan. The "Housing Through Case Management" services are consistent with the Consolidated Plan. The 2009 Action Year of the 2005 Consolidated Plan shows these priorities for Addressing Homelessness:

Priority 1: Provide needed emergency shelter facilities and related services.
Priority 2: Prevent homelessness by enabling people to obtain or retain decent affordable housing and supportive services.

Now that the 10-Year Plan is finalized, the Partnership is working diligently to advocate for, support and comply with service delivery philosophies, strategies, mandates, and performance standards that are setting a path to end all types of homelessness.

BENEFICIARY DATA

NOTE: You are required to provide beneficiary data at the end of each quarter and year end data of the fiscal year.

14. How do you collect demographic data on the beneficiaries of the proposed project or program? (Example: racial/ethnic characteristics)

Demographics are collected during the client intake process using the California Department of Community Services and Development demographic form.

15. How do you document and maintain income status of each client in compliance with HUD regulations? (Example: very low, low- and moderate-income)

As part of the client intake process, client income is verified using the federal poverty guidelines.

16. Provide the following information for the persons in your organization responsible for the preparation and submittal of the quarterly reports and for collecting and reporting the beneficiary data to the Urban County.

Contact person/title: Robert J. Ellis, Planning & Program Development Specialist III

Phone number: (805) 544-4355

E-mail address: bellis@capslo.org

ATTACHMENT 4

FINANCIAL INFORMATION

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects please provide the required additional budget information on BUDGET FORM A and BUDGET FORM B attached to the back of this application.

17. Total amount of CDBG funds requested: $ 138,707

18. Please identify the cities to which you are applying. If you are applying to one or more cities, please provide a copy of the application to the County by the application deadline. If you are requesting CDBG funds from more than one city, please break down the amount shown above by the city listed below. The minimum requested CDBG amount is $8,000 for public services from one or more jurisdictions.

City of Arroyo Grande:	$8,000	City of Paso Robles:	
City of Pismo Beach:		City of San Luis Obispo:	$62,800
City of Atascadero:		County of San Luis Obispo:	$59,907
City of Morro Bay:	$8,000		

19. Please describe the budget for the proposed project or program. Itemize all sources of funding expected to be available and used for this project

Please see Exhibit B attached.

20. How do you plan to fund the operation and maintenance costs (if any) associated with this project? Are these funds available now? If not, when will they be available? And from what sources?

The Friends of Prado Day Center is the largest funder of the program, generating support through community donations. CDBG funds are the largest mainstream resource used to support operation and maintenance of the Prado Day Center. Other funding shown on Exhibit B also supports the operation of the project and is received throughout the year. Every effort is made to keep costs low by generating volunteer and in-kind support.

We are also constantly looking at ways to diversify resources. CAPSLO's Homeless Advisory Committee is active in holding fundraising events. CAPSLO also engaged resource development consultants who created a long-range Financial Development Plan that will expand the agency's capacity to generate diversified programmatic and capital development resources. That plan was adopted by the CAPSLO (then EOC) Board in October 2007.

21. Will CDBG funds be used to match/leverage other funds? List below funding sources and amounts and identify award dates of these sources.

CDBG funds are the primary mainstream resources used to support shelter operations; CDBG and ESG funds are used to leverage all other local and private resources. Please see Exhibit B.

ATTACHMENT 4

I certify that the information in this application is true and accurate to the best of my knowledge and ability.

Signature 10-14-14 Date

Elizabeth "Biz" Steinberg CEO
Printed or typed name Title

ATTACHMENT 4

Exhibit B
Community Action Partnership of SLO County, Inc.
Prado Day Center
Proposed Budget FYE June 30, 2016

		Budget
Source of Funds:		
CDBG Funds Requested- SLO County	$	62,800
CDBG Funds Requested- SLO City		59,907
CDBG Funds Requested- Cities: AG		8,000
CDBG Funds Requested- Cities: MB		8,000
Total CDBG Funds Requested		**138,707**
Non-CDBG Funds Requested:		
SLO County ESG		30,378
SLO County General Fund		32,286
Local - City of SLO General Fund		-
United Way		-
People's Kitchen		2,400
Donations		-
Friends of Prado		178,292
Total Funds	**$**	**382,063**
Expenditures:		
Salaries	$	202,101
Fringe Benefits		82,009
Office Supplies		1,149
Utilities		15,064
Telephone		1,930
Laundry		1,100
Maintenance and Repairs		21,818
Program Supplies		24,583
Advertising, Recruiting and Training		1,574
Miscellaneous		2,434
Indirect and Administrative		28,301
Total Expenditures	**$**	**382,063**
Excess (Shortfall) of Funds over Expenditures	$	-

ATTACHMENT 4

Exhibit B
Community Action Partnership of SLO County, Inc.
Prado Day Center
Budget FYE June 30, 2015

		Budget
Source of Funds:		
CDBG Funds - SLO County	$	32,100
CDBG Funds - SLO City		-
Total CDBG Funds		**32,100**
Non-CDBG Funds:		
SLO County ESG		31,977
SLO County General Fund		23,886
Local - City of SLO General Fund		53,700
People's Kitchen		2,400
Donations		42,224
Agency CSBG support		6,811
Friends of Prado		182,247
Total Funds	**$**	**375,345**
Expenditures:		
Salaries	$	200,100
Fringe Benefits		79,620
Office Supplies		1,138
Utilities		14,625
Telephone		1,874
Laundry		1,068
Maintenance and Repairs		21,817
Program Supplies		23,867
Advertising, Recruiting and Training		1,574
Miscellaneous		2,363
Indirect and Administrative		27,299
Total Expenditures	**$**	**375,345**
Excess (Shortfall) of Funds over Expenditures	$	-

ATTACHMENT 5 AG, PB, AT, MB, PR, PUBLIC SERVICE COUNTY

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM APPLICATION FOR THE 2015 PROGRAM YEAR

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

Organization Name: **Senior Nutrition Program of San Luis Obispo County**
(Attach additional sheets if necessary)

To be considered for CDBG assistance, a completed application with any necessary exhibits, budgets or beneficiary data is required. **PLEASE CAREFULLY READ ALL OF THE INFORMATION IN THIS APPLICATION**. Applications can be mailed to one of the participating jurisdictions listed in this application or to: Suzan Ehdaie, Department of Planning and Building, 976 Osos Street, Room 300, San Luis Obispo, CA, 93408 or hand delivered to Suzan Ehdaie at 1035 Palm Street, Room 370, San Luis Obispo, CA, faxed to (805) 781-5624, or e-mailed to sehdaie@co.slo.ca.us. **The application deadline is 5:00 P.M., Tuesday, October 15, 2014.** Applications must be received by the County or one of the participating cities (Arroyo Grande, Pismo Beach, Atascadero, Morro Bay, Paso Robles, San Luis Obispo) prior to close of the business day. **POSTMARKED MAIL RECEIVED AFTER THE DEADLINE WILL NOT BE ACCEPTED.**

NOTES:

(1) Please review the CDBG regulations and guidelines and the Request for Proposals before completing your proposal. The CDBG regulations, under 24 CFR 570, are available at www.sloplanning.org under "Federal HUD Grants."

(2) **HMIS Reporting for 2015 homeless services, housing and shelter -** All homeless service providers applying for ESG funds to assist, house or shelter the homeless must identify and demonstrate its capacity to participate in the County of San Luis Obispo Homeless Management Information System (HMIS) to provide: personnel for data entry, user licensing, and hardware and software necessary for compatibility with HMIS. HMIS is an electronic data collection system that stores client level information about persons who access the homeless services system in a Continuum of Care, and reports aggregate data for the County as per the U.S. Department of Housing and Urban Development's (HUD) Data Standards. HUD updated its data standards in 2014, and the new standards are in effect starting October 1, 2014. . More information can be found at https://www.hudexchange.info/resources/documents/HMIS-Data-Standards-Manual.pdf and https://www.hudexchange.info/resources/documents/HMIS-Data-Dictionary.pdf.

(3) The Project Proposal submitted to the County of San Luis Obispo shall be examined in relation to the County's community development goals and funding priorities as presented in the Urban County of San Luis Obispo 2015-2019 Consolidated Plan. The draft Consolidated Plan will be available at www.sloplanning.org in February 2015. The Housing and Economic Development team will make draft funding recommendations using the rating criteria stated in the 2015 Request for Proposals as well as other information including but not limited to: the County Board of Supervisors, recommendations from the Homeless Services Oversight Council, online "needs" survey, other participating jurisdictions of the Urban County of San Luis Obispo, identified needs that could be addressed by the grant funds, consistency with goals and priorities in the upcoming 2015-2019 Consolidated Plan and the Ten Year Plan to End Homelessness, results of the Needs Workshops, working knowledge of the project and organization, and availability of limited funds.

ATTACHMENT 5

Please attach additional sheets for more detailed information of your proposed project or program for any of the questions below.

CONTACT INFORMATION

1. Name and mailing address of applicant organization, with contact person, phone and fax numbers, and e-mail address:

Name: Senior Nutrition Program of San Luis Obispo County

Address (mailing and physical address requested if different):
2180 Johnson Avenue
San Luis Obispo, CA 93401

Contact person/title
Elias Nimeh, Executive Director

Phone: 805-541-3312

Fax: 805-541-5631

E-mail address: elias.nimeh@att.net

Organization's DUNS number: 839610680

If you are awarded CDBG funds or your proposal involves economic development, i.e., directly benefit a business, private property owner, business, involves façade improvements, provide technical assistance to a new or existing business, job creation, loan guarantee, the beneficiary must obtain a Dun and Bradsteet (DUNS) number that must be reported to HUD. Please contact Suzan Ehdaie, (805) 781-4979, sehdaie@slo.co.ca.us for information on how to obtain a DUNS number prior to incurring and obligating the federal funds.

Is your agency currently participating in HMIS? no

If not, does your agency have the capacity to participate in HMIS? If yes, how so? no

ATTACHMENT 5

PROJECT DESCRIPTION

2. Title/name/address of proposed project or program:

Title: Ongoing program support
Name: Senior Nutrition Program of San Luis Obispo County
Address: 2180 Johnson Avenue
San Luis Obispo, CA 93401

3. Please describe the proposed project or program. In one or two short paragraphs, include a brief project/program description, the groups who will benefit and an explanation of how they will benefit from the proposed project or program. For projects, describe the location of the project (be as specific as possible, e.g. street address). For programs, state the location from which the program will be operated and describe the geographic area served by the program. Also, please include a schedule of project/program milestones.

The Senior Nutrition Program of SLO County provides free, hot, nutritious noon-time meals to seniors who are at least 60 years old. Seniors who are able to attend can eat meals at 10 community sites throughout the county in congregate dining. We also deliver meals, with frozen meals for Saturday and Sunday, to qualified seniors who are homebound. We rely on over 250 volunteers to deliver meals. We are the only program serving senior meals throughout San Luis Obispo County and the only program that includes congregate dining and an opportunity for socialization among the seniors. All of our meals are free to those who are eligible, although some clients choose to make voluntary anonymous donations. Our program has three goals: nutrition, socialization, and safety. Both the congregate dining and the home delivery provide socialization and human contact to help break the cycle of isolation. Finally, the daily home deliveries by volunteers, along with regular assessments by site supervisors, provide both friendly human contact and a safety net from accidents or physical or financial abuse. All staff and volunteers are mandated to report any suspected abuse. Currently, we are based in the former County Hospital complex in San Luis Obispo where we are able to prepare all our meals in the former hospital's kitchen and handle our administrative needs in a small adjacent office.

This past fiscal year, July 2013 – June 2014, SNP prepared and delivered 137,509 meals to 1406 senior residents of San Luis Obispo County. Of those clients, slightly over half participated in congregate dining while slightly under half received home-delivered meals.

We are requesting the CDBG grant funding to help us maintain the high quality of our program and services. SNP gets **half** (50%) of the needed funding to operate the program from state and federal sources. We must raise the other half, $600,000 annually, through fundraising, donations, and local grants. CDBG grant money will be used as a matching fund for the federal grant.

4. Will the services offered by your organization increase or expand as a result of the CDBG assistance? If yes, please answer the following questions:

a. Senior Nutrition Program will not provide new programs or services as a result of CDBG assistance. We will, however, be able to expand our current program. From January to May of 2014, we were forced to establish waiting lists for our services. The demand for our program exceeded the funds we had to provide it. Due to cutbacks in government funding, we could not provide service to all of the seniors requesting it. Thanks to our big May fundraising event and other fundraising efforts, we are currently accepting all applications for our service, both congregate and home-delivered meals, without a waiting list. With assistance from CDBG, we hope to continue to be able to do this through the end of fiscal year 2014-2015. **Additionally, we would use funding from CDBG as matching funds for federal funding. Our federal funding is partial, only about 50% of our total budget. Increasing our federal funding is dependent on providing matching funds, which CDBG funding would allow us to show.**

b. Describe how existing programs or services will be expanded and what percentage of an increase is expected?

As described above, with CDBG assistance we hope to be able to accept all applications for our service through the end of the fiscal year without having to establish waiting lists. Additionally, we expect to be able to increase the number of meals we are able to serve, and thus the number of clients we are able to help. Depending on the amount of CDBG assistance, we would expect to serve 500 more meals in our ten dining sites countywide and serve 2000 more home-delivered meals. With every $100 of funding, SNP can provide meals for one senior for a month. With $10,000 of funding, we can provide meals for 10 seniors for a full year.

5. Check any of the following eligible activity categories that apply to the proposed project or program: (Refer to CDBG regulations and the Guide to Eligible CDBG Activities).

____ Acquisition of real property* ____ Disposition of real property

____ Public facilities and improvements (may include acquisition, construction, reconstruction, rehabilitation or installation)* and/or **

____ Privately owned utilities ____ Clearance and remediation activities**

_X___ Public services ____ Interim assistance

____ Relocation of individuals, families, businesses, non-profit organizations, and/or farms

____ Loss of rental income ____ Removal of architectural barriers

____ Housing rehabilitation**

____ New housing construction (under limited circumstances)

____ Homeownership assistance ____ Housing services

____ Code enforcement ____ Historic preservation**

____ Commercial or industrial rehabilitation** ____ Special economic development

____ Technical assistance and planning studies

* **Relocation**: Any project that involves the acquisition of property and/or rehabilitation and is funded in whole or in part with federal funds, even if the federal funds are not used for the acquisition itself, is subject to federal requirements connected to acquisition and relocation. A project cannot be broken into separate "projects" in order to avoid the federal requirements connected with property acquisition and relocation. Any questions concerning whether the relocation regulations apply to a specific property acquisition project should be directed to the County Housing and Economic Development staff before any action is taken on the project.

If HUD funded project will cause a household or a business to move, evenly temporarily, the relocation regulations will apply.

Along with application submit:

- Estimate of relocation cost (moving costs, subsidy amount for suitable replacement dwelling)
- Letter to owner of voluntary acquisition, plus proof of delivery to owner.
- General Information letter to tenants (both business and residential tenants), plus proof of delivery to all).
- List of tenants (both business and residential tenants) at the time of application submittal.
- Refer to SLO Col website for sample relocation letters.

** **Lead based paint**: If HUD funded project involves acquisition or rehabilitation of a residential units that was built in 1978 or earlier, then Lead-Based paint regulations will apply.

- Along with application submit an estimate of costs for LBP work, provided by certified LBP consultant. Or statement by LBP consultant explaining that project is exempt.
- Include any temporary housing costs.

6. Describe the need and the degree of urgency for the proposed project or program. What would be the consequences if the proposed project or program is not funded in the next year?

Without funding in the next year for our program, we will be forced to cut back on existing services to our clients and turn away new clients. Indeed, this is what happened in fiscal year 2013-2014. Last year, we received only a small fraction of the CDBG funding we requested. Beginning in January 2014, we were forced to establish a waiting list for both congregate and home-delivered meals, meaning that we were turning away new clients. Senior Nutrition Program is proud of the level of service we are able to provide and the number of seniors we are able to serve in our program. However, our costs continue to rise, especially in the areas of food, labor costs, supplies, and gas and maintenance for our delivery trucks. Additionally, we

constantly receive requests from new clients who want to participate in our program, especially among those who are homebound. It was largely these requests that we had to turn away for the first five months of 2014. The home-delivered meals cost more to the program than the congregate meals. In order to maintain our high level of service and program quality, and to meet the ever increasing demand for our services, we urgently need financial support from local agencies. We are in dire need of financial support from *each community* we serve, both to serve the seniors in these communities and to use for federal matching funds.

7. Please describe the specific organizational method used to implement the proposed project or program (single or multiple group, public agency, non-profit, for-profit, experience in operating similar programs, etc.):

Senior Nutrition Program has operated in San Luis Obispo County, CA, for over 26 years. We are a non-profit corporation that consists of a volunteer board of directors, dedicated staff of 8 full-time and 18 part-time employees, and over 250 volunteers.

The process we use to provide hot, nutritious meals is as follows:

- Assessment of potential clients is determined at the initial application process. It is also determined if there are other health issues, nutritional risks and limitations. When needed, we will refer potential clients to other appropriate agencies.

- Our registered dietician prepares a menu of delicious and nutritious meals every month that follows all health and dietary restrictions. Under the guidance of our experienced kitchen manager, meals are prepared by trained staff in the central kitchen. Additionally, we supplement our kitchen staff through a collaborative program with two organizations, Grizzly Academy and PathPoint, whose participants learn employable kitchen skills.

- Two drivers deliver food to 10 community sites each weekday in refrigerated trucks. Site managers, with the help of volunteers, heat and serve food to our dining room clients. They also pack meals that are picked up by volunteers from the sites to be delivered to the homebound five days a week. Two additional frozen meals are delivered on Fridays to homebound clients to see them through the weekend.

- SNP delivers meals to the City of San Luis Obispo, the Five Cities (Arroyo Grande, Oceano, Grover Beach, Pismo Beach, and Nipomo), Los Osos/Baywood Park, Morro Bay, Cambria, Atascadero, Santa Margarita, Templeton, and Paso Robles.

- SNP maintains daily records of every meal and every client served. On any day of the year, we will be able to compare the cost-to-date of our food purchases for the fiscal year vs. last year by the number of clients and the number of meals and also by the number of homebound meals and the number of congregate meals.

SNP leadership focuses on effectively managing our costs, maintaining meticulous records, and planning and preparing the highest quality meals for our seniors. Following is a brief biography of our leaders:

- **Elias Nimeh, Executive Director,** has been the director of SNP for 9 years. He has a B. Sc. degree in Agronomy from Arizona State University and 40-plus years' experience in the restaurant business. He owned and operated a local business, Tortilla Flats, Inc., for 20 years.
- **Irene Palacios, Kitchen Director,** has been with the program for over 30 years and followed a steady progression of increasing responsibilities and promotions until reaching her current position as Kitchen Director approximately 28 years ago.
- **Wendy Fertschneider, Nutritionist,** has a degree in Dietetics and Food Administration from Cal Poly SLO. She has been with the program for over 16 years in a variety of positions. Currently she works part-time as our Registered Dietician, which is required for this program, writing and approving menus, providing staff training and nutrition education, and serving as advisory council facilitator.

Additionally, interns from Cal Poly and Cuesta College assist our office staff. A group of approximately 35 volunteers, the Friends of Senior Nutrition Program, have the primary responsibility for planning and putting on our annual fund-raising event, the Night of a Million Meals.

8. Does the project require the issuance of a permit (from local, state or federal agencies)?

Yes ☐ No X

a. If yes, please identify the permits necessary to complete the project.

b. Have the necessary permits been issued? Please provide proof of permit issuance.

c. If permits are required but not yet obtained, when will the permits be issued?

NATIONAL OBJECTIVES CRITERIA

9. Does the proposed project or activity meet one of the three national objectives of the CDBG program? Please check one of the objectives below that applies to the proposal, and explain how the project or activity meets that national objective.

a. ___X__ Benefits low- and moderate-income persons as defined by the U.S. Department of Housing and Urban Development (HUD). **NOTE:** To meet this national objective, the proposed activity must benefit a specific clientele or residents in a particular area of the County or participating city, at least 51 percent of who are low- and moderate-income persons.

Select one:

X **Low/Moderate-Income Area Benefit** – The project serves only a limited area which is proven by 2000 Census data or survey to be a predominately (51% or more) low/moderate-income area. Applicants choosing this category must be able to prove their project/activity primarily benefits low/moderate-income households.

☐ **Low/Moderate-Income Limited Clientele** – The project benefits a specific group of people (rather than all areas in a particular area), at least 51% of whom are low/moderate-income persons;. Note: Income verification for clients must be provided for this category. The following groups are presumed to be low/moderate-income: abused children; elderly persons; battered

spouses; homeless persons; adults meeting census definition of severely disabled; persons living with AIDS; and migrant farm workers

☐ **Low/Moderate-Income Housing** – The project adds or improves permanent residential structures that will be/are occupied by low/moderate-income households upon completion.

☐ **Low/Moderate-Income Jobs** – The project creates or retains permanents jobs, at least 51% of which are taken by low/moderate-income persons or considered to be available to low/moderate-income persons.

Explain: All of our clients are elderly; some are disabled/homebound. In FY 2013-2014, SNP served 1406 clients. Of those served, 35% are living in poverty. The remaining clients are living at low to moderate income levels. During the application process clients are asked to check income status. It is SNP policy to provide meals free of charge to seniors at least 60 years old regardless of income.

b. _____ Aids in the prevention or elimination of slums or blight. **NOTE:** To meet this national objective, the proposed activity must be within a designated slum or blighted area and must be designed to address one or more conditions that contributed to the deterioration of the area.

Explain:

Select one:

☐ **Addressing Slums or Blight on an Area Basis -**

☐ **Addressing Slums or Blight on a Spot** Basis – This project will prevent or eliminate specific conditions of blight or physical decay. Activities are limited to clearance, historic preservation, rehabilitation of buildings, but only to the extent necessary to eliminate conditions detrimental to public health and safety.

Is the project located in a Redevelopment Area? Yes ☐ No ☐

If yes, attach a map of the area with the site highlighted, and provide the Redevelopment Project Area (excerpts accepted) which documents the existence of slum/blight. Also, document the specific redevelopment objectives pertaining to the proposed project.

c. _____ Meets community development needs having a particular urgency where existing conditions pose a serious and immediate threat to the health or welfare of the community, and no other funding sources are available, i.e., a major catastrophe such as a flood or earthquake. **NOTE:** To meet this national objective, the proposed activity must deal with major catastrophes or emergencies such as floods or earthquakes.

Explain:

10. If the project or program is designed to meet the national objective of providing benefit to low- and moderate-income persons, please estimate the number of <u>unduplicated</u> number of persons (or households) to benefit from the project and break that estimate down by income group (unduplicated means the number who are served, i.e., the grant will allow 25 children to participate in preschool – not 25 children x 5 days x 52 weeks = 6,500).

a. Total number of persons or households who will benefit from the project or program (regardless of income group):

<u>1500</u> Persons/~~households~~ (circle the applicable unit)

b. Of the total number of persons or households entered above, how many will be low-income (earning 51% - 80% or less of the County median-income)?

<u>525</u> Persons/~~households~~ (circle the applicable unit)

c. Of the total number of persons or households entered above, how many will be very low-income (earning 50% or less of the County median-income)?

<u>225</u> Persons/~~households~~ (circle the applicable unit)

11. Who are the clients of your organization? (Example: low- to moderate-income persons, elderly persons, severely disabled persons, migrant farm workers, battered spouses, etc.)

Elderly persons
Low- to moderate-income seniors
Disabled seniors

12. How will the clients benefit from this project?

The main benefit will be that seniors will continue to receive hot, nutritious meals at lunchtime five days a week. Food insecurity among seniors is a growing problem nationwide, and our county is no exception. Improved nutrition also brings improved health for our aging population, which could reduce the strain on public health services. This project will increase independent living for seniors. Seniors who might otherwise need to leave their homes because they can no longer prepare meals will have an increased chance of staying in their homes. Research has shown that seniors who can stay in their own homes frequently experience less depression than those in nursing homes. The project will also provide a safety net for these seniors, whether homebound or dining at the centers. For the homebound, the volunteer drivers provide a daily contact, and the site manager checks frequently. The program's delivery people, all volunteers, are trained to recognize situations which may require emergency or law enforcement assistance.

13. If your project serves homeless households, please describe how your program coordinates with other continuum of care projects and entities and how it aligns with the San Luis Obispo Countywide 10-Year Plan to Homelessness.

Several of our congregate sites in the county serve homeless seniors. The daily meals they receive will help in improving and maintaining good health and reducing their dependence on emergency facilities.

BENEFICIARY DATA

NOTE: You are required to provide beneficiary data at the end of each quarter and year end data of the fiscal year.

14. How do you collect demographic data on the beneficiaries of the proposed project or program? (Example: racial/ethnic characteristics)

SNP collects this information through the application process for each client and updates all applicable data quarterly for all homebound clients. For congregate clients information is updated annually.

15. How do you document and maintain income status of each client in compliance with HUD regulations? (Example: very low, low- and moderate-income)

SNP collects this information through the application process for each new client and updates the data quarterly for all homebound clients. For congregate clients information is updated annually. All income status information is gathered according to Federal guidelines.

16. Provide the following information for the persons in your organization responsible for the preparation and submittal of the quarterly reports and for collecting and reporting the beneficiary data to the Urban County.

Contact Person/Title: Elias Nimeh, Executive Director

Phone number: 805-541-3312

E-mail address: elias.nimeh@att.net

ATTACHMENT 5

FINANCIAL INFORMATION

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects please provide the required additional budget information on BUDGET FORM A and BUDGET FORM B attached to the back of this application.

17. Total amount of CDBG funds requested: $ 90,000

18. Please identify the cities to which you are applying. If you are applying to one or more cities, please provide a copy of the application to the County by the application deadline. If you are requesting CDBG funds from more than one city, please break down the amount shown above by the city listed below. The minimum requested CDBG amount is $8,000 for public services from one or more jurisdictions.

City of Arroyo Grande:	$15,000	City of Paso Robles:	$15,000
City of Pismo Beach:	$15,000	City of San Luis Obispo:	$ 0.00
City of Atascadero:	$15,000	County of San Luis Obispo:	$15,000
City of Morro Bay:	$15,000		

19. Please describe the budget for the proposed project or program. Itemize all sources of funding expected to be available and used for this project

a. **Revenues:**

1. CDBG Funds requested	$ 90,000		2015
2. Other Federal fund(s) (please describe below)	$472,630	Title III C	July 2014
3. State source(s) (please describe below)	$126,510		July 2014
4. Local source(s) (please describe below)	$201,000		July 2014-June 2015
5. Other funds (please describe below)	$ 70,000		July 2014-June 2015
Total Revenue	**$ 960,140**		

(4- Local Sources)

Comm. Foundation --	$5,000
United Way	$5,000
Camb. Comm.	$4,000
SLO County grant	$50,000
City of SLO	$7,000
Senior Donations	$120,000
Business & Private	$10,000
TOTAL	**$201,000**

(5- Other funds)

Holiday Mailer	$10,000
Annual F/R	$60,000
Total	**$70,000**

b. **Expenditures**: List below by item or cost category.

Food and food containers	$260,000
Wages and benefits	$514,000
Rent	$ 70,000
Utilities	$13,000
Transportation & maint.	$43,000
Telephone	$10,500
Insurance	$11,300
Other costs	$38,340
Total	**$960,140**

20. How do you plan to fund the operation and maintenance costs (if any) associated with this project? Are these funds available now? If not, when will they be available? And from what sources?

The Senior Nutrition Program operation and maintenance costs are funded in half by money from federal and state government and half by on-going donations from seniors receiving services, the community at large, local grants and our annual fundraising events.

The funds are received monthly.

21. Will CDBG funds be used to match/leverage other funds? List below funding sources and amounts and identify award dates of these sources.

The CDBG funds will be used towards the matching funds for the federal grants. We are required to provide matching funds of at least 15% of our federal grant.

The sources of funding are all listed in question # 19 (a)

I certify that the information in this application is true and accurate to the best of my knowledge and ability.

Signature 10/14/2014 Date

Elias Nimeh Executive Director
Printed or typed name Title

ATTACHMENT 5

The County and cities require all of the grant recipients to maintain general liability, automobile and workman's compensation insurance with limits of not less than $1 million***. If you are successful in obtaining an award, you will be asked to provide documentation regarding ability to provide the required coverage.

*** Liability coverage may vary by jurisdiction. Please call the City/County contact to verify limits.

Prior to HUD's release of grant funds for the CDBG-funded project, a review of the project's potential impact on the environment must be conducted by the awarding jurisdictions and approved by the County of San Luis Obispo **prior to obligating or incurring project costs**. The County must certify to HUD that it has complied with all applicable environmental regulations and requirements. If project costs be obligated or incurred prior to the completion of the necessary environmental review, the project **shall not** benefit from the grant funds. The level of environmental review required depends on the nature of the project. Tilte 24 CFR Part 58 is available at http://www.hud.gov/offices/pih/ih/codetalk/onap/docs/24cfr58.pdf.

If you need assistance or have questions regarding this application, please contact any of the persons listed below. Your applications can be dropped off or mailed to the following locations:

- Kelly Heffernon - Community Development Department - (805) 473-5420
  City of Arroyo Grande, 300 E. Branch Street, Arroyo Grande, CA 93420

- Valerie Humphrey - Public Works Department - (805) 470-3460
  City of Atascadero, 6500 Palma Avenue, Atascadero, CA 93422

- Rob Livick - Public Services Department - (805) 772-6261
  City of Morro Bay, 955 Shasta Avenue, Morro Bay, CA, 93442

- Darren Nash - Community Development Department - (805) 237-3970
  City of Paso Robles, 1000 Spring St., Paso Robles, CA 93446

- Carolyn Johnson, Planning Department - (805)773-7043
  City of Pismo Beach, 760 Mattie Road, Pismo Beach, CA 93449

- Tyler Corey - Community Development Department – (805) 781-7175
  City of San Luis Obispo, 919 Palm St., San Luis Obispo, CA 93401

ATTACHMENT 5

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL BUDGET INFORMATION SHEET

BUDGET FORM A

For CDBG applications to the County of San Luis Obispo involving acquisition, construction or rehabilitation projects must provide the applicable project budget information.

Financial considerations are key in assessing a project's ability to be completed successfully and timely. Factors to be considered in this area include (a) availability and sufficiency of resources (including all non-CDBG, federal, state, county or private funding sources, (b) the leveraging of resources, (c) fiscal support for the project for its continued viability and (d) the project budget's accuracy, reasonableness and completeness in determining the financial needs of the project.

Source of Funds. Provide for entire project and round to the nearest hundred dollars. Do NOT include operating costs as this is not an eligible CDBG costs for projects involving acquisition, construction or rehabilitation projects.

Comment on your entity's strategy and plans on the leveraging and sufficiency of resources to implement the proposed project. If project is not leveraged with other funds, explain why CDBG funds are being relied on solely to fund the proposed project.

Description of Cost	**Date Funds Available**	**Amount Requested**	**Approved - Secured**	**Total**	**% of Total Budge**
CDBG Funds: This Request					
Previous Award					
Previous Award					
CDBG Funds: This request					
Previous Award					
Other Federal Funds Source:					
State Funds Source:					
Private Funds:					
Private Funds:					
Private Funds:					
In-Kind Contributions: Labor					
In-Kind Contributions					
Other:					
Other:					
Other:					
Totals					**100%**

ATTACHMENT 5

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL BUDGET INFORMATION SHEET

BUDGET FORM B

Project Budget
Budget Form – Acquisition, Construction and Rehabilitation Project Preliminary Budget & Project Funding Requirements

Agency name: _____
Project: _____

Preliminary Budget: List all funding necessary to complete the proposed project. You must provide a **DETAILED** budget line-item worksheet for all costs associated with the project. **NOTE: YOU MUST USE THIS FORMAT**. Additionally, you must provide a **DETAILED** budget narrative explaining how you arrived at each line item.

Activity	CDBG Funds	Other Funds	Total Cost
ACQUISITION			
Purchase of Land			
Purchase of Units			
Other Expenses (List)			
HARD COSTS			
Site Work			
Demolition			
Construction			
Appliances			
Accessory Buildings			
General Requirements			
Contractor Overhead			
Contractor Profit			
Construction Contingency			
Other (List on separate sheet			
SOFT COSTS			
Architect Fee – Design			
Architect Fee – Supervision			
Legal Fees			
Engineering Fees			
Other Professional Fees (List)			
Appraisal			
Market Study			
Environmental Report			
Title & Recording Expenses			
Relocation Expenses			
Lead Based Paint Removal			
Consultants			
Other Soft Costs (List)			
INTERIM COSTS			

ATTACHMENT 5

Construction Insurance			
Construction Interest			
Credit Enhancement			
Real Estate Taxes			
FINANCING COSTS			
Bond Premium			
Permanent Loan Origination			
Permanent Loan Credit Enhance			
Other Financing Costs (List)			
DEVELOPER'S FEE (Determined individually for each project)			
TOTAL DEVELOPMENT COST			

Budget must be specific and reflect the applicant's financial commitment, including items paid for by other sources. This includes in-kind contributions and volunteer labor. It should not include amounts of administration. Indicate the circumstances/consequences of partial funding is awarded for this project.

Authorization:

_____
Authorized Signature for Project

_____
Title

_____
Print Name

_____
Date

ATTACHMENT 5

COUNTY OF SAN LUIS OBISPO CDBG SUPPLEMENTAL TIMELINE INFORMATION SHEET

TIMELINE FORM C

WORK PLAN & PERFORMANCE SCHEDULE

List all project milestones and their anticipated work period. There will be an opportunity to update the project timeline after grant notification and before executing a grant agreement. Any proposed changes, including extension and early completion, must be requested in writing and approved in advance by the jurisdiction receiving the funding application. Note: Applicant will assume all financial risk if work on the proposed project begins before environmental clearance is obtained. You may either use or recreate this form to add tasks and activities and extended timeline. **YOU MUST USE THIS FORMAT.**

Task/Activity (Starts July 2015)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN

AGENDA NO: A-8

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor & City Council** **DATE: October 21, 2014**

FROM: **David Buckingham, City Manager**

SUBJECT: **Approval of Amendment #1 to Contract Services Agreement with Aleshire & Wynder, LLP for City Attorney Services**

RECOMMENDATION
Staff recommends the City Council approve Amendment #1 as presented.

ALTERNATIVES
There are no recommended alternatives.

FISCAL IMPACT
No fiscal impact at this time as a result of this report.

SUMMARY/BACKGROUND
In March 2014, City Council selected and entered into a contract with the law firm of Aleshire & Wynder, LLP (A&W) to provide interim city attorney services for the City. The contract provided for semi-annual evaluations in March and September of each year, commencing September 2014. Following an evaluation conducted in a City Council Closed Session Meeting on September 23, 2014, the Council voted unanimously to continue to retain the legal services of A&W under the terms of the current agreement and directed the title of "Interim" be removed. The contract amendment provided herein serves that purpose.

CONCLUSION
Approval of Amendment #1 to Contract Services Agreement with Aleshire & Wynder, LLP for City Attorney services fulfills Council direction following the September 23, 2014 meeting.

Prepared By: _____ **Dept Review:**_____

City Manager Review: _____

CITY OF MORRO BAY

AMENDMENT NO. 1 TO CONTRACT SERVICES AGREEMENT

ALESHIRE & WYNDER, LLP
City Attorney Services

This Amendment No. 1 to Contract Services Agreement dated March 1, 2014 (this "Amendment") is made and entered into this 9th day of December 2014 by and between the City of Morro Bay, a municipal corporation ("City"), and Aleshire & Wynder, LLP ("A&W"), a California limited liability partnership ("Consultant") (sometimes collectively the "Parties").

RECITALS

A. On March 1, 2014, the Parties entered into an Agreement for Consultant to provide Interim City Attorney services for the City of Morro Bay (the "Agreement").

B. On September 23, 2014, following an evaluation conducted in a Closed Session Meeting, the Morro Bay City Council voted unanimously to continue to retain the legal services of A&P under the terms of the current Agreement.

Now, therefore, the Parties agree as follows:

1. The Agreement shall be amended to remove all references to Interim.

2. Except as specifically provided herein, all provisions of the Agreement shall continue in full force and effect.

3. The effective date of this Amendment No. 1 shall be September 23, 2014.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 1 to be executed.

CITY OF MORRO BAY

By: _____
Jamie L. Irons, Mayor

Attest:

_____
Jamie Boucher, City Clerk

ALESHIRE & WYNDER, LLP

By: _____
Joseph W. Pannone, Equity Partner

AGENDA NO: A-9

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor & City Council** **DATE: November 20, 2014**

FROM: **Joseph W. Pannone, City Attorney**

SUBJECT: **Approval of an Amendment to the Contract with David Buckingham for Services as the City Manager**

RECOMMENDATION

Approve the amendment to the contract with David Buckingham, City Manager, and authorize the Mayor to sign the contract on behalf of the City.

ALTERNATIVES

Disapprove or modify the amendment.

FISCAL IMPACT

No fiscal impact would result from this amendment that was not considered on August 26, 2014, when the agreement for Mr. Buckingham to serve as City Manager was approved by the Council.

BACKGROUND and DISCUSSION

On August 26th, the City Council approved the employment agreement with Mr. Buckingham (the "Agreement"). The Agreement was prepared by the Interim City Manager and City Attorney. The Agreement did not include two provisions that had been part of the conditional offer letter signed by the Interim City Manager and Mr. Buckingham (the "Offer Letter"). The terms set forth in the Offer Letter were agreed to by the Council. The subject amendment rectifies that discrepancy.

The two provisions not included in the Agreement relate to vacation and sick leave and vision and dental insurance. The Offer Letter provided Mr. Buckingham would be granted 10 vacation and 10 sick days on the effective date of the Agreement. Those would be in addition to those that he would also accrue similar to other City staff. That initial vacation and sick leave was to be provided to assist Mr. Buckingham with his and his family's transition to Morro Bay. The Offer Letter also stated Mr. Buckingham's vision and dental insurance cost would be paid by the City. Although the Agreement states Mr. Buckingham is entitled to that insurance, it also says it would be provided in a manner similar to other City management staff benefits. Those benefits are paid by the City with a small contribution from the management employees. The Agreement should have included

Prepared By: __JWP__ **Dept Review:_____**

City Manager Review: _____

City Attorney Review: __JWP___

provisions similar to those contained in the Offer Letter regarding the discussion of benefits. The subject amendment modifies the Agreement to set forth those two terms.

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CITY OF MORRO BAY

AMENDMENT NO. 1 TO CITY MANAGER EMPLOYMENT AGREEMENT

This Amendment No. 1 to the City Manager Employment Agreement (this "Amendment") is made and entered by and between the City of Morro Bay, a municipal corporation ("City"), and David Buckingham ("Buckingham") (sometimes collectively the "Parties").

RECITALS

A. As of August 26, 2014, the Parties entered into an Agreement for Buckingham to serve as City Manager for City (the "Agreement").

B. The Parties have recently discovered the Agreement did not include two provisions the parties had agreed to during the original negotiations.

C. The Parties desire to amend the Agreement, as permitted by Subsection 7. J. of the Agreement, to correct the Agreement to provide for those missing provisions.

Now, therefore, the Parties agree as follows:

1. Subparagraph (2)(a) of Subsection 4. B. of the Agreement shall be amended to read as follows:

   Annually, Buckingham shall receive 15 vacation days and 12 sick leave days, which shall accrue as other management staff vacation and sick leave days, respectively, are accrued. Buckingham shall be paid for any unused accrued vacation upon either voluntary or involuntary termination of employment. In addition, Buckingham shall receive 10 vacation days and 10 sick leave days credited to his accounts as of December 9, 2014.

2. The first sentence of Subparagraph (5) of Subsection 4. B. of the Agreement shall be amended to read as follows:

   Buckingham shall be entitled to all benefits, rights, and privileges accorded to City Department Directors except as otherwise provided in this Agreement; provided, that Buckingham will be responsible for carrying and paying for his and his family's health insurance; and provided, further, that City shall pay the total cost for providing dental and vision insurance for Buckingham and his family.

3. Except as specifically provided herein, all provisions of the Agreement shall continue in full force and effect.

4. This Amendment No. 1 shall be effective on December 9, 2014.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment No. 1 to be executed.

"City"

By:_____
Jamie Irons, Mayor

"Buckingham"

_____
David Buckingham

ATTEST:

By:_____
Jamie Boucher, City Clerk

APPROVED AS TO FORM:

By:_____
Joseph W. Pannone, City Attorney

AGENDA NO: A-10
MEETING DATE: 12/9/14

Staff Report

TO: **Mayor and City Council** **DATE: November 10, 2014**

FROM: **Susan Slayton, Administrative Services Director**

SUBJECT: **Annual Report on Unfunded Liabilities**

RECOMMENDATION

This is an informational item for the City Council's review.

ALTERNATIVES

As this report is informational only, there are no alternatives presented.

FISCAL IMPACT

1. An employee's sick leave converts to service credit with CalPERS upon retirement.
2. At service retirement, employees (SEIU, Confidential, Management and Executives) may convert sick leave to cash with limitations (rarely used as employees normally convert to service credit)
3. Annually, employees may convert up to 96 hours of sick leave into vacation leave at a ratio of 2:1, computed on a sliding scale based on prior year usage.

The City incurs a minimal cost as a result of sick leave conversion to service credit through our CalPERS employer rates, due to the additional amount of time served that the employee gains. The City incurs direct costs should the employee convert sick leave to cash or vacation; that action lowers the amount that is convertible to service credit with CalPERS.

1. An employee's vacation and other compensable leaves must be paid out in full upon separation from employment.
2. Compensable leaves, which have accrued over and above the leave cap, are paid out based on language in the MOUs, Agreements and Contracts; this controls the amount of accrued leave balances by paying out amounts over the cap on an annual basis. (In the case of the POA, employees cease to accrue leave until their vacation leave balance falls below the cap)
3. Through their MOUs, Agreements or Contracts, all employees have the ability to cash out 40 hours of vacation (Fire = 112 hours) on an annual basis; this reflects another method of lowering the liability of vacation accruals.

BACKGROUND/SUMMARY

Prepared By: _____	**Dept Review:_____**
City Manager Review: _____	
City Attorney Review: _____	

An inquiry from the Grand Jury, received on March 1, 2012, led the City Council to request this annual update on unfunded accrual liabilities. Attached is a report, totaled by department, of the hours and dollar amounts of the liabilities in sick and compensable leave accruals as of November 10, 2014.

DISCUSSION

Presented tonight is the annual report on unfunded liabilities in employee compensable and sick leave accruals. Through November 10, 2014, the total accrued compensable leave amounts come to $713,868. These leaves, in total, would only be payable if every City employee separated from employment at the same time. This liability fluctuates based on uses, annual mandatory and requested payouts, employee pay rates, annual accruals and employee turnover.

The total accrued sick leave dollar amount comes to $1,187,514. Per the terms of the City's PERS contract, sick leave converts to service credit upon retirement. There is no maximum accrual limit on sick leave. All employees have the ability to convert sick leave to vacation leave on a 2:1 basis, according to the sliding scale reflected in their MOUs, Agreements, and Contracts. With the exception of POA and FFA, employees have the ability to cash out sick leave at a reduced rate of pay (25% - 35% of the rate of pay at retirement). This liability fluctuates based on uses, conversions to compensable leave and employee separations.

CITY OF MORRO BAY
SCHEDULE OF UNFUNDED LIABILITIES
AS OF 11/10/2014

	SICK		COMPENSABLE HOURS [1]	
DEPT	HOURS	DOLLARS	HOURS	DOLLARS
Administration	826.9900	$ 32,592.00	560.0000	$ 23,308.50
Administrative Services [2]	4,036.1250	160,252.49	1,920.1700	71,585.39
Police [3]	7,321.9959	286,630.77	5,234.6175	200,736.14
Fire	9,979.0646	261,758.71	4,327.2650	117,203.42
Public Services	2,421.0425	98,299.52	1,778.8000	78,970.77
Water	2,299.3160	67,981.88	1,282.1120	38,379.18
Sewer Collections	1,548.4800	37,868.39	644.1700	15,489.74
Wastewater Treatment	991.6724	37,459.5700	840.1585	30,412.75
Recreation [4]	1,618.8750	61,074.18	1,322.9100	55,071.54
Consolidated Maintenance [5]	2,324.2000	63,103.14	1,290.6500	34,707.98
Harbor	1,916.1200	80,493.53	1,345.8900	48,002.95
Totals for 2014	35,283.8814	$ 1,187,514.18	20,546.7430	$ 713,868.36

[1] Compensable hours includes vacation, floating holiday, comp time and administrative leave
[2] Departments include Human Resources, Legal, Finance and Information Technology
[3] Departments include Police and Communications
[4] Departments include Administration, Sports and Youth
[5] Departments include Vehicle, Streets, Facilities and Parks Maintenance

AGENDA NO: A -11
MEETING DATE: 12/9/2014

Staff Report

TO: **Mayor and City Council** **DATE: November 19, 2014**

FROM: **Susan Slayton, Administrative Services Director**

SUBJECT: **Amending Resolution No. 42-14, "Adopting the 2014/15 Fiscal Year Operating Budgets," and Adoption of Resolution No. 79-14, Revising Section 6 to read "City Council approval is required for any proposed increase to the number of PERS benefitted budgeted positions hired"**

RECOMMENDATION

Staff recommends the City Council adopt Resolution 79-14, amending Section 6. of Resolution No. 42-14 to read "City Council approval is required for any proposed increase to the number of PERS benefitted budgeted positions hired."

ALTERNATIVES

1. Reject Resolution No. 79-14; and authorize the City Manager to fill the currently vacant Building Inspector and Water Treatment Operator positions.
2. Provide other direction to staff regarding the vacant Building Inspector and Water Treatment Operator positions.

FISCAL IMPACT

There is no fiscal impact to passing this Resolution.

DISCUSSION

Resolution No 42-14, which adopted the fiscal year 2014-15 operating budgets, contained language included in past budget resolutions, regarding the hiring freeze for positions in the City's workforce within the General Fund, with the exception of safety personnel, requiring City Council approval to fill vacancies in budgeted positions on a case-by-case basis (Section 6. of Resolution No. 42-14). That requirement creates a delay in the hiring process by, at minimum, two weeks up to one month. With our constrained staffing levels, a burden is placed on existing staff to cover the vacated position, often with the use of overtime, employment of part-time staff to fill the gap if possible, or contracting with consultants at a much higher rate of pay.

Prepared by: _SS___	**Dept. Review: _____**
City Manager Review:_____	
City Attorney's Review:_____	

Section 6. of

City Council directs that the hiring freeze for positions in the City workforce continue for those positions funded within the General Fund, with the exception of safety personnel, and the City Council reserves the right to review any requests to fill vacancies on a case-by-case basis**.**

Staff feels that all budgeted positions, whether safety or not, should be allowed to be refilled, at the administrative discretion of the City Manager. What is, and has been, missing from budget Resolutions is City Council-required approval to increase the number of PERS benefitted budgeted positions, whether they are safety positions or not. Staff is recommending that the language in Section 6. be changed as presented below:

6. **City Council approval is required for any proposed increase to the number of PERS benefitted budgeted positions hired**.

Attachments: Proposed Resolution No. 79-14
Resolution No. 42-14

RESOLUTION NO. 79-14

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA AMENDING RESOLUTION 42-14 BY DELETING THE HIRING FREEZE LANGUAGE RELATING TO THE REQUIREMENT TO REQUEST CITY COUNCIL PERMISSION TO REFILL VACANCIES IN VARIOUS POSITIONS AND ADDING A NEW SECTION 6. REQUIRING CITY COUNCIL APPROVAL TO INCREASE THE NUMBER OF PERS BENEFITTED BUDGETED POSITIONS

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, on June 24, 2014, the City Council of the City of Morro Bay passed Resolution No. 42-14, which adopted the 2014/15 fiscal year operating budgets; and

WHEREAS, Section 6. of that Resolution contains a stipulation that falls within the scope of administrative duties assigned to the City Manager; and

WHEREAS, Section 6. does not, nor does any portion of Resolution No. 42-14, state City Council approval is required to increase the number of PERS benefitted budgeted positions hired by the City; and

WHEREAS, with the adoption of Resolution No. 79-14, the language in the new Section 6. will allow the City Manager to have the sole discretion to refill budgeted positions that have become vacant; and

WHEREAS, with the adoption of Resolution No. 79-14, the language in the new Section 6. will still require City Council approval to increase the number of PERS benefitted budgeted positons hired by the City.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay, California, Resolution No. 42-14 is hereby amended by deleting Section 6. and adding a new Section 6., to reads as follows:

6. City Council approval is required for any proposed increase to the number of PERS benefitted budgeted positions hired.

PASSED AND ADOPTED, by the City Council of the City of Morro Bay, at a regular meeting thereof held on the 9th day of December, 2014, by the following vote:

AYES:
NOES:
ABSENT:

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

RESOLUTION NO. 42-14

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA ADOPTING THE 2014/15 FISCAL YEAR OPERATING BUDGETS

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, the City of Morro Bay is required to appropriate and expend public funds to conduct the day-to-day business activities of the City; and

WHEREAS, the Morro Bay City Council finds and determines that these appropriations are necessary for continued efficiency, economy and effectiveness of the City government operations; and

WHEREAS, the City Council recognizes that Capital Improvement Projects authorized and approved in prior fiscal years may not be completed by June 30, 2014; and

WHEREAS, the continuing efforts of staff to operate the business of the City within an approved budget and to create savings wherever feasible are acknowledged by the City Council; and

WHEREAS, Section 37208 of the California Government Code provides that payments or demands conforming to an approved budget adopted by Ordinance or Resolution do not require audit by the City Council prior to payment.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay, California, that:

1. The Fiscal Year 2014/15 Operating Budgets are adopted, including any amendments made at this meeting, which will be attached to this Resolution; and

2. Staff is directed to prepare and publish a final budget document; and

3. The City Manager is authorized to transfer appropriations within the adopted budget, so long as the appropriations' changes do not have a significant policy impact, and total appropriations are not exceeded; and

4. City Council approval is required to transfer appropriations between funds, capital projects, or capital outlay items; and

5. City Council authorizes and directs the transfer of balances for capital projects approved in prior fiscal years, but not completed by June 30, 2014, to the Capital Improvement Project Fund(s) for the 2014/15 fiscal year; and

6. **City Council directs that the hiring freeze for positions in the City workforce continue for those positions funded within the General Fund, with the exception of safety personnel, and the City Council reserves the right to review any requests to fill vacancies on a case-by-case basis; and**

7. City Council chooses to continue to defer the remaining 2.5% of the 2009/10 deferral of the management and executive employees' 3% Cost-of-Living Adjustment (COLA);

8. Per Council minute order May 24, 2004, any expenditures, in excess of the assessments received for the Cloisters Assessment District, will be subsidized by the General Fund, without additional request made to City Council; and

9. The City will consider reducing the amount of General Fund support to the Morro Bay Tourism Bureau and other outside funding requests with its 2015/16 budget.

PASSED AND ADOPTED, by the City Council of the City of Morro Bay, at a regular meeting thereof held on the 24th day of June, 2014, by the following vote:

AYES: Irons, C. Johnson, Leage, Smukler

NOES: N. Johnson

ABSENT: None

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

AGENDA NO: A-12
MEETING DATE: 12/09/14

Staff Report

TO: **Mayor and City Council** **DATE: November 20, 2014**

FROM: **Susan Slayton, Administrative Services Director**

SUBJECT: **Approval of Amended Business License Tax Rate Schedule Regarding Business Licenses**

RECOMMENDATION

Staff recommends the City Council accept the proposed business license tax rate schedule for fiscal year 2014/15.

ALTERNATIVES

This item is being brought forward as a result of actions taken at the November 12, 2014 Council meeting. As such, no alternatives are being recommended.

DISCUSSION

At the November 12, 2014 meeting, the City Council adopted Ordinance No. 590, establishing the Low Revenue Business category, directing staff to establish an annual business license tax for meeting that threshold at $32 and requesting the business license tax rate schedule be modified to reflect the change in an easy-to-read format.

The business license tax rates are subject to change annually with the Consumer Price Index (CPI); the new CPI rate will be available to staff on or about April 15, 2015. The CPI adjustments will be calculated, and the new schedule will come back to City Council for approval at the May 12, 2015 meeting with an effective date of July 1, 2015.

ATTACHMENTS

- Ordinance 590
- Proposed Business License Tax Rate Schedule

Prepared By: __SS____	**Dept Review:_____**
City Manager Review: _____	
City Attorney Review: _____	

ORDINANCE NO. 590

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA ADDING SECTION 5.08.220 TO THE MORRO BAY MUNICIPAL CODE RELATING TO REQUIREMENTS FOR LOW REVENUE BUSINESSES TO OBTAIN BUSINESS LICENSES

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, Morro Bay Municipal Code, **s**ection 5.04.050 requires certain businesses, trades, professions, callings, and occupations to pay license fees as established annually in the Business License Rate Schedule; and

WHEREAS, based on recent community comments and concerns, at its meeting of October 28, 2014, the City Council of the City of Morro Bay passed a motion adopting staff's recommendation and directing staff to prepare an ordinance to amend the Morro Bay Municipal Code to require businesses that generate low annual revenue to still obtain a business license but only pay a minimal business license fee intended to cover some or all of the City's costs to process and issue the business license.

NOW, THEREFORE, the City Council of the City of Morro Bay does ordain as follows:

SECTION 1: Section 5.08.220 is hereby added to the Morro Bay Municipal Code to read as follows:

5.08.220 – Low Revenue Business

A. Notwithstanding any other provision of this title and subject to subsection C. below, as of July 8, 2014, the regular business license tax set forth in the Business License Rate Schedule is suspended for any business that demonstrates it generates annual gross receipts of less than Twelve Thousand Dollars ($12,000.00) ("Low Revenue Business"), as shown through submittal of tax returns for its previous tax year or by other means acceptable to the Collector.

B. The suspension set forth in subsection A., above, shall remain in effect until such time as the City Council may amend or repeal this section.

C. Each Low Revenue Business shall obtain a current business license in accordance with this title and pay a license fee in accordance with the Business License Rate Schedule; provided, that the license fee for each Low Revenue Business shall not be greater than the amount necessary for the City to recover some or all of the costs incurred by the City in processing and issuing that business license.

D. Any person who paid a business license tax for a Low Revenue Business on or after July 8, 2014, shall be entitled to receive a refund of the amount paid in excess of the license fee described in subsection C., above.

SECTION 2: This Ordinance shall take effect 30 days after its adoption. The City Clerk, or her duly appointed deputy, shall attest to the adoption of this Ordinance and shall cause this Ordinance to be published and posted in the manner required by law.

INTRODUCED at a special meeting the of the City Council of Morro Bay, held on the 6th day of November, 2014 by motion of Councilmember Leage, seconded by Christine Johnson.

PASSED AND ADOPTED on the 12th day of November, 2014, by the following vote:

AYES: Irons, C. Johnson, Leage, Smukler
NOES: None
ABSENT: None
RECUSED: N. Johnson

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

APPROVED AS TO FORM:

_____
JOSEPH W. PANNONE, City Attorney

City of Morro Bay
Master Fee Schedule

Business License Tax Rate Schedule
As of March 2014

All amounts are annual unless otherwise noted.

All tax rates presented include the tax, fee and $1 SB1186 ADA charge

Morro Bay Municipal Code Sections are listed after category name.

Basic Business License for all undesignated professions (5.08.020)	$137
Plus each employee, if applicable	$32

Common Business Categories	
Apartment, Motel, Hotel, Multiple Dwellings, Rest Homes, Rooming Houses, Hospitals & Sanitariums of 4 or more units (5.080.30)	
Basic license	$137
Additional for each unit, dwelling, room or person cared for in excess of 3	$5
Art, Hobby or Handicraft Show & Exhibitions, Farmers Market, Special Events (5.08.040)	
Basic license for sponsor/organizer, per day per event	$137
Basic license for not-for-profit sponsor/organizer, per day per event	$1
Per seller:	
Per day	~~$3~~ $6
Per weekend	$11
Annual	$44
Sponsor must provide gross receipts for each event	
Contractor/Consultant (5.08.080)	
Primary General Contractor/Consultant	$270
One job only	$137
Specialty Contractor/Sub-Contractor/Consultant	$137
One job only	$35
Delivery by vehicle (5.08.090)	
1 or more conveyances	$137
Garage or yard sale (5.08.120)	
Limited to 2 per year, with permit	$0
More than 2 per year	$137

City of Morro Bay
Master Fee Schedule

Business License Tax Rate Schedule
As of March 2014

All amounts are annual unless otherwise noted.

All tax rates presented include the tax, fee and $1 SB1186 ADA charge

Morro Bay Municipal Code Sections are listed after category name.

Home Occupation (5.08.130)	
Basic Home Occupation	
Business License	$137
Required, one-time Permit Processing Fee	$66
Home Occupation Exception Business License; must qualify by submitting latest tax return, including Schedule C	
Occupations which are intended to augment or supplement primary source of income	$59
Required, one-time Permit Processing Fee	$66
Low Revenue Business; must qualify annually by submitting latest tax return, including Schedule C	
Gross receipts under $12,000 per year for occupations, which are intended to augment or supplement primary source of income	$33
Required, one-time Permit Processing Fee (only if Home Occupation)	$66
Transient, Solicitor, Itinerant Merchant (5.08.150)	
~~Peddler~~ REMOVED...PROHIBITED BY ZONING	
~~Basic charge per day~~	~~$57~~
Transient	
Per day	$6
Per weekend	$11
Annual	$44
Solicitor	
Basic charge per day	$110
Additional for each employee, per day	$54
Itinerant Merchant	
Per day	$57
Per week	$110
Per month	$164
Per quarter	$215
For 180 days	$269
Additional for each employee, per day	$54

City of Morro Bay
Master Fee Schedule

Business License Tax Rate Schedule
As of March 2014

All amounts are annual unless otherwise noted.

All tax rates presented include the tax, fee and $1 SB1186 ADA charge

Morro Bay Municipal Code Sections are listed after category name.

All Other Business Categories	
Ambulance	
1 or more conveyances	$110
Auctioneers (5.08.050)	
Per day, no fixed place of business	$137
Fixed place of business	$137
Additional for each employee	$32
Bingo (9.12.050)	
Per game	$67
Carnival and/or Circus, per day (5.08.060)	$540
Covers all activities within the perimeter of the event	
Coin-Operated Vending Machine(s) (5.08.070)	
Gross receipts for all machines	
Fire, Wreck or Bankrupt Sale (5.08.100)	
Each sale	$192
Additional in excess of 3 days, per day	$111
Flea Markets (5.08.110)	
Minimum per Salesperson	$10
Money Lenders & Pawnshops (5.08.140)	$543
Non-Profit Organizations (5.04.050), exempt from Business Tax; must pay SB1186	$1
Public Utilities (5.08.160)	$137
Plus: Each Employee	$32
Exception: when City Franchise Tax is greater than annual Business Tax Rate	
Private Patrol (5.04.330)	$69

City of Morro Bay
Master Fee Schedule

Business License Tax Rate Schedule
As of March 2014

All amounts are annual unless otherwise noted.

All tax rates presented include the tax, fee and $1 SB1186 ADA charge

Morro Bay Municipal Code Sections are listed after category name.

Real Estate (5.08.170)	
Calif. Licensed Broker	$137
Each Salesman or Agent	$32
Each Employee	$23
Rides, Shows, Public Dances, and Exhibitions (5.08.180)	
Exhibiting Animals or Trick Riding, Wire Dancing or other Exhibitions (Exception No Fee or Admission), per day	$57
Merry-Go-Round, Revolving Wheel Chute, Tobaggan, Slide, Mechanical Riding Contrivance or Pony Ride	$58
Public Dance (Exception No Fee or Admission), per day	$58
Tent Show or Itinerant Show (Exception No Fee or Admission), per day	$137
Wrestling or Boxing Show, per day	$58
Secondhand Store or Junkdealer (5.08.190)	$137
Plus: Each Employee	$32
Skating Rink (5.08.200)	$137
Plus: Each Employee	$32
Taxicabs (5.24.140)	
License Per Cab	$75
Driver	$10
Trailer House, RV or Mobile Home Park (5.08.210)	
Rental Spaces 1-3	$137
Plus additional per space	$5

ADMINISTRATIVE CHARGES	
Duplicate or replacement Business License Certificate	$2
Transferring a Business License	$2
Business License listing, per list	$15

AGENDA NO: A-13

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: December 2, 2014**

FROM: **Rob Livick, PE/PLS – Public Services Director/City Engineer**
Barry Rands, PE – Associate Engineer

SUBJECT: **Authorization to Award Contract for Project No. MB-2013-S2: Morro Creek Multi-Use Trail and Bridge Project**

RECOMMENDATION

Staff recommends the City Council award the contract for the Morro Creek Multi-Use Trail and Bridge Project to CalPortland Construction of Santa Maria, CA in the amount of $1,184,654.

ALTERNATIVES

1) Reject the low bid from Cal Portland because it failed to meet the 4% Disadvantaged Business Entity (DBE) goal and award to the second low bidder, Souza Construction of San Luis Obispo, in the amount of $1,248,879.87 and reduce the project contingency budget by $64,225.87.

FISCAL IMPACT

The City Engineer's estimate for this project is $1,200,000. The construction phase of the project, including construction management services, is substantially funded by a grant from federal and state funds in the amount of $1,268,000. The funding application commits the City to a match of $168,670 allotting total available funds at $1,436,670. Construction management is expected to cost approximately $150,000, leaving $1,286,670 for construction costs, to include contingencies. The low bid came in at $1,184,654 which will allow for a $102,016 contingency budget to cover unforeseen project conditions.

SUMMARY

The Invitation for Bids was posted in the San Luis Obispo Tribune on November 2 and 7. Bids were opened on November 25 at 2pm in the Public Services Conference Room. Five bids were received, ranging from a high of $1,595,091 to a low of $1,184,654. One bid was rejected because it was submitted after the 2pm deadline. The low bidder was CalPortland Construction of Santa Maria. Staff review of the bid proposals revealed minor irregularities in each of the bids. All but one bidder failed to provide the name of the proposed bridge manufacturer with the original bid documents. While this requirement was clearly listed in the Technical Specifications, it was not specified in the Bid Book as a material requirement of the bid submission. Staff opted to give each bidder the opportunity to cure this omission and the Caltrans Local Assistance Office and the City Attorney concurred with that approach. While the low bidder has not achieved the desired DBE goal of 4%, review of their Good Faith Effort documentation indicates they offered 14.4% of the work to 30

Prepared By: BCR **Dept Review:** RL

City Manager Review: DB

City Attorney Review: JWP

different DBE firms; the result being 2.2 % of the work is to be performed by 3 DBE firms. Of note, a fourth DBE bid was rejected in favor of another certified small business that does not hold DBE status because their DBE bid failed to include the required 90 day maintenance period. This omission reduced the CalPortland's DBE performance from 6.6% to 2.2%. Based on this analysis, staff concludes that CalPortland has made a Good Faith Effort to employ DBE firms on this project. As such, staff recommends the contract be awarded to the low bidder.

BACKGROUND

The Morro Creek Multi-Use Trail and Bridge Project was approved for design in July, 2013. The design was completed and all permits acquired in August, 2014. Additional funding was procured to cover increases in anticipated costs due to design changes (emergency vehicle loading and lighting) and revised cost estimates based on detailed design. The initial Invitation for Bids resulted in a low bid from Souza Construction of $1,560,560. As this exceeded available funds, Council rejected all bids on October 28, 2014 and the project was redesigned to reduce costs. Cost-saving redesign features include a more cost-effective foundation installation method, a less complex boardwalk stamped concrete pattern, and a reduction in landscape maintenance requirements from 5 years to 90 days. The project was re-advertised on November 2.

DISCUSSION

Rebidding the project has reduced the low bid by $375,906, although there have been minor additional costs incurred during redesign.

One complication surfaced during the rebidding process that should be noted. The Notice to Bidders included notice of a mandatory pre-bid meeting on November 10, eight days after the notice appeared in the Tribune and six days after publication in regional plan rooms. Public Contract Code (6610) states "Any mandatory pre-bid site visit, conference or meeting shall not occur within a minimum of five calendar days of the publication of the initial notice." Nevertheless, several contractors asked that the requirement for mandatory attendance be waived after they missed this meeting. On advice of the City Attorney, mandatory attendance at the pre-bid meeting was maintained as a qualification requirement for bidding.

One of the risks in rebidding this project was associated with meeting the December 31, 2014 award deadline as prescribed by the funding agency; awarding the project today, allows the City to meet this deadline. In the event that Council chooses not to award this bid tonight, City staff has applied with the California Transportation Commission (CTC) for an extension of the December 31st deadline. Unfortunately, the next meeting of the CTC to consider our request will not be held until tomorrow December 10th; so staff is not certain that an extension will be granted.

CONCLUSION

All minor irregularities experienced during the bidding process have been cured and staff recommends the City Council award the contract to the low bidder.

ATTACHMENT

Bid Summary Sheet

CITY OF MORRO BAY
BID OPENING MINUTE FORM

DATE 11/25/2014 PROJECT NO. MB-2013-S2

OPENING TIME SCHEDULED 2:00 PM ACTUAL 2:03

BID ITEM: Morro Creek Mutli-Use Trail & Bridge

CITY REPRESENTATIVES PRESENT	NAME	POSITION
	Barry Rands	Associate Engr.
	Rob Livick	PS Director
	Rick Sauerwein	Capital Projects Mgr.

CONTRACTOR'S REPRESENTATIVES PRESENT	NAME	COMPANY
	DAN CARRISOSA	DAWSON-MAULDIN CONST.
	KEITH O'CONNOR	SOUZA CONSTRUCTION
	JESSE BISHOP	CALPORTLAND
	RYAN VICTOR	R. BURKE CORP.
	Shannon Clay	Specialty Construction
	Rob LIVICK	CMB
	MICK MYERS	R. MYERS INC.

BIDS OPENED BY: _____

REMARKS _____

MB-2013-S2 Bid Summary

1.) Specialty Construction, Inc. $ 1,342,206.44

Comments:

2.) R. Burke Corp. $ 1,595,091.00

Comments:

3.) Calportland $ 1,184,654.00

Comments:

4.) Sauger Construction $ 1,248,879.87

Comments:

5.) Dowson Mauldin $ 1,415,874.00

Comments:

6.) $

Comments:

7.) $

Comments:

8.) $

Comments:

9.) $

Comments:

10.) $

Comments:

11.) $

Comments:

AGENDA NO: B-1

MEETING DATE: December 9, 2014

Staff Report

TO: **Mayor and City Council** **DATE: November 24, 2014**

FROM: **Scot Graham, Planning Manager**

SUBJECT: **A00-018; Review of Amendments to the General Plan and Local Coastal Plan Necessary to Implement State-Mandated Density Bonuses in Residential Land Use Districts**

RECOMMENDATION

Staff recommends the City Council Adopt Resolutions 80-14 and 81-14 approving amendments to both the General Plan and Local Coastal Plan related to Density Bonus.

ALTERNATIVES

Continue the discussion of this item to a future meeting and provide direction to staff regarding any additional information the Council requires.

PROJECT DESCRIPTION

The City's 2009 adopted Housing Element establishes a precise and detailed plan for the use of land in the City, based on the General Plan and Coastal Land Use Plan. Amendments to the General Plan Land Use, Open Space and Conservation Element, and Coastal Land Use Plan to implement Density Bonus are necessary provisions to remain in compliance with State and Federal Housing law.

FISCAL IMPACT

There is no fiscal impact to this item.

BACKGROUND

The State of California requires each municipality to review and update their General Plan Housing Element on a five (5) year cycle to ensure the needs of all California residents can be met. The City's previously adopted and certified Housing Element (November 2009) included programs intended to comply with California Department of Housing and Community Development (hereafter, HCD) statutory requirements and state law. On March 11, 2014, City Council adopted Ordinance 584, integrating these programs into Title 17 (henceforth, Zoning Regulations) of the Municipal Code. This included the replacement of Section 17.50, "Affordable Housing, Density Bonuses and Incentives" to comply with the Housing Element and changes to both the Government and Civil Codes. Subsequent to Council action, the Coastal Commission determined the Coastal Land Use

Prepared By: __SG____ **Dept Review:**__RL___

City Manager Review: __ ___

City Attorney Review: _____

Plan must explicitly allow for these state-mandated density bonuses in residential districts. In order to maintain consistency, the parallel General Plan policies must also be amended.

It's also worth noting that because the Implementation Program was adopted by City Council prior to approval and certification of the 2014-2019 Housing Element, the more recent Housing Element assumes these programs, including updates to the City's Affordable Housing, Density Bonus and Incentives Program, are in place.

The Planning Commission reviewed the amendments on October 21, 2014, and adopted Resolution 25-14 recommending City Council approval of the proposed amendments to both the General Plan and Local Coastal Plan (See PC Resolution 25-14 Attached as Exhibit 3).

DISCUSSION

The proposed amendments to the text of the General Plan and Coastal Land Use Plan are intended to allow implementation of an affordable housing program consistent with state law, the adopted 2009-2013 Housing Element of the Morro Bay General Plan, and the implementation program recently adopted by City Council. The following discussion identifies the targeted General Plan and Coastal Land Use policies and associated amendments necessary for implementation.

Part of the Local Coastal Program amendment adopted by City Council included replacement of Municipal Code Section 17.50 – "Affordable Housing, Density Bonuses and Incentives", to provide new language consistent with current state housing law. Although the Coastal Commission previously certified the now-antiquated density bonus standards in the Zoning Code, at present, the Coastal Commission determined that because of the inflexible language in the Coastal Land Use Plan (which also appears in the General Plan), the proposed density bonuses would be inconsistent and could not be implemented in residential districts. Specifically, these documents identify allowed density ranges for residential land use districts, without flexibility to allow state-required density bonuses. No amendment to other land use designations is required, as only the residential land use classifications specify numerical limits for density. In order to increase density within these residential districts, Coastal Land Use and General Plan amendments are required along with the previously-adopted Zoning Code amendment. The following language was developed with the assistance of Coastal Commission staff, by tailoring their standard language for density bonuses to the particular needs of the City of Morro Bay. The proposed new language is shown <u>underlined</u> below.

1. General Plan Amendment

   II. General Plan Land Use, Open Space and Conservation Element
   C. Land Use Classifications and Land Use Plan Maps
   2. Land Use Classifications
   a. Residential Land Uses: Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics. (LCP 22)

   Density ranges area as follows:

Limited Density	-	up to 2 dwelling units per acre
Low Density	-	up to 4 dwelling units per acre
Low-Medium Density	-	4 – 7 dwelling units per acre
Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915, density bonuses for affordable housing shall be granted to the extent that they have access to adequate water and sewer services and do not lead to adverse impacts, and that notwithstanding the density bonus, the resultant development is consistent with all other provisions of the General Plan and City ordinances.

2. Coastal Land Use Plan Amendment

II. Land Use Plan Map and General Land Use Policies
C. Land Use Designations
1. Residential Land Uses

Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics.

One type of residential development that the City would encourage is cluster development. Some of the advantages include increased open space, better visual qualities, additional preservation of sensitive sites, decreased cost of municipal services and an opportunity to provide more affordable housing.

Density ranges area as follows:

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Low-Medium Density	-	4 – 7 dwelling units per acre
Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915 and Coastal Act Section 30604(f), density bonuses for affordable housing shall be granted in the Coastal Zone to the extent that they have access to adequate water and sewer services and do not lead to adverse coastal resource impacts, and that notwithstanding the density bonus, the resultant development is consistent with all other provisions of the LCP.

PUBLIC NOTICE:

Notice of this item was published in the San Luis Obispo Telegram-Tribune newspaper on November 28, 2014, and interested parties were invited to voice any concerns regarding these text amendments.

ENVIRONMENTAL DETERMINATION:

The proposed amendments to the text of the General Plan and Coastal Land Use Plan are exempt from environmental review pursuant to Section 15061(b) (3) of the California Environmental Quality Act (CEQA) Guidelines under the general rule that CEQA only applies to projects which have the potential for causing a significant effect on the environment, and Section 15265(c) which exempts approval of Coastal Land Use Plans pursuant to the California Coastal Act.

CONCLUSION

Staff recommends City Council adopt Resolutions 80-14 and 81-14 (Exhibits 1 & 2) approving Density Bonus amendments to both the General Plan and Local Coastal Plan.

EXHIBITS

1. City Council Resolution 80-14 approving Amendment to the General Plan
2. City Council Resolution 81-14 approving Amendment to the Local Coastal Plan
3. Planning Commission Resolution 25-14 Recommending approval to Council of both Amendments.

EXHIBIT 1

RESOLUTION NO. 80-14

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA APPROVING PROPOSED GENERAL PLAN TEXT AMENDMENTS INCORPORATING LANGUAGE ALLOWING FOR APPROVAL OF DENSITY BONUSES CONSISTENT WITH STATE HOUSING LAW

T H E C I T Y C O U N C I L
City of Morro Bay, California

WHEREAS, the City of Morro Bay desires to amend the General Plan Land Use, Open Space and Conservation Elements policy C2-a to allow for density bonus considerations in association with affordable housing; and

WHEREAS, notices of said public hearing were made at the time and in the manner required by law; and

WHEREAS, it is the purpose of the Morro Bay General Plan to establish the kinds, location, and intensity of land uses, and the applicable resource protection and development policies for the use of land in the City of Morro Bay; and

WHEREAS, it is important to have clear, consistent, and easy to interpret policies within the General Plan; and

WHEREAS, Government Code Section 65915 requirements for the adoption of a density bonus program to facilitate and encourage the maximum build-out of available sites has been modified in 2005 (SB 1818); and

WHEREAS, amendment of the General Plan is necessary prior to codifying the provision of density bonuses in residential land use districts and will bring the Zoning Ordinance into compliance with the above cited Government Code sections; and

WHEREAS, the proposed amendments to the General Plan are exempt from further environmental review pursuant to Section 15061(b) (3) of the California Environmental Quality Act (CEQA) Guidelines under the general rule that CEQA only applies to projects which have the potential for causing a significant effect on the environment, and Section 15265(c) which exempts approval of Coastal Land Use Plans pursuant to the California Coastal Act; and

WHEREAS, allowing for density bonuses in residentially designated areas has no potential for causing a significant effect on the environment, as any development would be subject to the provisions of the City's Zoning Ordinance and Local Coastal Program and all City development standards; and

WHEREAS, the Planning Commission reviewed the proposed General Plan amendment at its regularly scheduled meeting of October 21, 2014 and has recommended approval of the Amendments to City Council; and

WHEREAS, the amendments as presented are consistent with the intent of the City of Morro Bay's General Plan and are necessary to implement the adopted 2009 Housing Element and remain in compliance with the State of California Housing Law; and

WHEREAS, the City Council held a duly noticed public hearing to amend the General Plan on December 9, 2014 at which all interested persons were given the opportunity to be heard.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay as follows:

FINDINGS:

1. The above recitations are true and correct and constitute the findings of the City Council in this matter.

2. The proposed amendments to the General Plan will not be injurious or detrimental to the health, safety, comfort, general welfare or well-being of the persons residing or working in the community.

3. The proposed amendments are in general conformance with the intent of the City General Plan.

4. The proposed amendments to the General Plan Land Use Element incorporating language to allow for implementation of density bonuses are related to provisions of affordable housing.

ACTION:

1. The City Council does hereby adopt the Density Bonus amendments to the General Plan Land Use Element Policy C2-a as identified in the attached Exhibit A.

PASSED AND ADOPTED by the Morro Bay City Council at a regular meeting thereof held on this 9th day of December 2014 on the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jamie L. Irons, Mayor

ATTEST

_____
Jamie Boucher, City Clerk

EXHIBIT "A"

Amendment of General Plan Land Use, Open Space and Conservation Element Section 13.C2a

Whereas underlined text is new language.

II. General Plan Land Use, Open Space and Conservation Element

C. Land Use Classifications and Land Use Plan Maps

2. Land Use Classifications

a. Residential Land Uses: Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics. (LCP 22)

Density ranges area as follows:

Limited Density	-	up to 2 dwelling units per acre
Low Density	-	up to 4 dwelling units per acre
Low-Medium Density	-	4 – 7 dwelling units per acre
Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915, density bonuses for affordable housing shall be granted to the extent that they have access to adequate water and sewer services and do not lead to adverse impacts, and that notwithstanding the density bonus, the resultant development is consistent with all other provisions of the General Plan and City ordinances.

EXHIBIT 2

RESOLUTION NO. 81-14

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA APPROVING PROPOSED COASTAL LAND USE PLAN TEXT AMENDMENTS INCORPORATING LANGUAGE ALLOWING FOR APPROVAL OF DENSITY BONUSES CONSISTENT WITH STATE HOUSING LAW

T H E C I T Y C O U N C I L
City of Morro Bay, California

WHEREAS, the City of Morro Bay desires to amend the COASTAL LAND USE PLAN Section 2, policy C-1 to allow for density bonus considerations in association with affordable housing; and

WHEREAS, notices of said public hearing were made at the time and in the manner required by law; and

WHEREAS, it is the purpose of the Morro Bay Coastal Land Use Plan to establish the kinds, location, and intensity of land uses, and the applicable resource protection and development policies for the use of land in the City of Morro Bay; and

WHEREAS, it is important to have clear, consistent, and easy to interpret policies within the General Plan; and

WHEREAS, Government Code Section 65915 requirements for the adoption of a density bonus program to facilitate and encourage the maximum build-out of available sites has been modified in 2005 (SB 1818); and

WHEREAS, amendment of the Coastal Land Use Plan is necessary prior to codifying the provision of density bonuses in residential land use districts and will bring the Zoning Ordinance into compliance with the above cited Government Code sections; and

WHEREAS, the proposed amendments to the Coastal Land Use Plan are exempt from further environmental review pursuant to Section 15061(b) (3) of the California Environmental Quality Act (CEQA) Guidelines under the general rule that CEQA only applies to projects which have the potential for causing a significant effect on the environment, and Section 15265(c) which exempts approval of Coastal Land Use Plans pursuant to the California Coastal Act; and

WHEREAS, allowing for density bonuses in residentially designated areas has no potential for causing a significant effect on the environment, as any development would be subject to the provisions of the City's Zoning Ordinance and Local Coastal Program and all City development standards; and

WHEREAS, the Planning Commission reviewed the proposed amendments at its regularly scheduled meeting of October 21, 2014 and has recommended approval of the amendments to City Council; and

WHEREAS, the amendments as presented are consistent with the intent of the City of Morro Bay's General Plan and Coastal Land Use Plan and are necessary to implement the adopted 2009 Housing Element and remain in compliance with the State of California Housing Law; and

WHEREAS, the City Council held a duly noticed public hearing to amend the Coastal Land Use Plan on December 9, 2014 at which all interested persons were given the opportunity to be heard.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay as follows:

FINDINGS:

1. The above recitations are true and correct and constitute the findings of the City Council in this matter.

2. The proposed amendments to the Coastal Land use Plan will not be injurious or detrimental to the health, safety, comfort, general welfare or well-being of the persons residing or working in the community.

3. The proposed amendments are in general conformance with the intent of the City's General Plan.

4. The proposed amendments to the Coastal Land Use Plan incorporating language to allow for implementation of density bonuses are related to provisions of affordable housing.

ACTION: The City Council does hereby:

1. Adopt the Density Bonus amendments to the Coastal Land Use Plan as identified in the attached Exhibit A.

The Amendments shall take effect immediately upon approval by the California Coastal Commission. If the forwarded amendments are altered by the California Coastal Commission they shall take effect immediately upon review and approval by the City Council of the Coastal Commission certification, pursuant to public resources code 30512, 30513, and 30519.

2. Certify that these amendments to the City's Coastal Land Use Plan are intended to be carried out in a manner fully in conformity with Division 20 of the Public Resources Code, otherwise known as the Coastal Act.

3. Direct staff to forward the amendments to the California Coastal Commission with recommendation for certification.

PASSED AND ADOPTED by the Morro Bay City Council at a regular meeting thereof held on this 9th day of December 2014 on the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jamie L. Irons, Mayor

ATTEST

_____
Jamie Boucher, City Clerk

EXHIBIT A

Amendment of Coastal Land Use Plan Section II.C1

Whereas underlined text is new language.

II. Land Use Plan Map and General Land Use Policies

C. Land Use Designations

1. Residential Land Uses

Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics.

One type of residential development that the City would encourage is cluster development. Some of the advantages include increased open space, better visual qualities, additional preservation of sensitive sites, decreased cost of municipal services and an opportunity to provide more affordable housing.

Density ranges area as follows:

Limited Density	-	up to 2 dwelling units per acre
Low Density	-	up to 4 dwelling units per acre
Low-Medium Density	-	4 – 7 dwelling units per acre
Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915 and Coastal Act Section 30604(f), density bonuses for affordable housing shall be granted in the Coastal Zone to the extent that they have access to adequate water and sewer services and do not lead to adverse coastal resource impacts, and that not withstanding the density bonus, the resultant development is consistent with all other provisions of the LCP.

EXHIBIT 3

DRAFT

RESOLUTION NO. PC 25-14

A RESOLUTION OF THE MORRO BAY PLANNING COMMISSION RECOMMENDING THE CITY COUNCIL APPROVE TEXT AMENDMENTS TO THE MORRO BAY GENERAL PLAN AND COASTAL LAND USE PLAN NECESSARY TO IMPLEMENT STATE MANDATED DENSITY BONUSES IN RESIDENTIAL LAND USE DISTRICTS

WHEREAS, the Planning Commission of the City of Morro Bay conducted a public hearing at the Morro Bay Veteran's Hall, 209 Surf Street, Morro Bay, California, on October 21, 2014, for the purpose of considering Text Amendments to the General Plan and Coastal Land Use Plan, to allow for density bonuses in residential land use districts;

WHEREAS, notices of said public hearing were made at the time and in the manner required by law;

WHEREAS, it is the purpose of the Morro Bay General Plan and Coastal Land Use Plan is to establish the kinds, location, and intensity of land uses, and the applicable resource protection and development policies for the use of land in the City of Morro Bay; and

WHEREAS, it is important to have clear, consistent, and easy to interpret policies within the General Plan and Coastal land Use Plan; and

WHEREAS, Government Code Section 65915 requirements for the adoption of a density bonus program to facilitate and encourage the maximum build out of available sites has been modified in 2005 (SB 1818); and

WHEREAS, amendment of the General Plan and Coastal Land Use Plan are necessary prior to or concurrent with Coastal Commission Certification of amendments to the Zoning Ordinance to codify provision of density bonuses in residential land use districts, which that will bring the Zoning Ordinance into compliance with the above cited Government Code sections; and

WHEREAS, the proposed amendments to the General Plan and Coastal Land Use Plan are exempt from further environmental review pursuant to Section 15061(b) (3) of the California Environmental Quality Act (CEQA) Guidelines under the general rule that CEQA only applies to projects which have the potential for causing a significant effect on the environment, and Section 15265(c) which exempts approval of Coastal Land Use Plans pursuant to the California Coastal Act;

WHEREAS, allowing for density bonuses in residentially designated areas has no potential for causing a significant effect on the environment, as any development would be subject to the provisions of the Local Coastal Program and all City development standards;

WHEREAS, the Planning Commission has duly considered all evidence, including the testimony of all interested parties, both written and oral, and the evaluation and recommendations by staff, presented at said hearing;

WHEREAS, the amendments as presented are consistent with the intent of the City of Morro Bay's General Plan and Coastal Land Use Plan, and are necessary to implement the adopted 2009 Housing Element and remain in compliance with the State of California Housing Law.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Morro Bay as follows:

SECTION 1: The Planning Commission forwards a favourable recommendation to the City Council to approve amendment of the General Plan Land Use, Open Space and Conservation Element Section 13.C2a as contained in Exhibit "B", attached hereto and made a part of this Resolution.

SECTION 2: The Planning Commission forwards a favourable recommendation to the City Council to approve amendment of the Coastal Land Use Plan Section II.C1 as contained in Exhibit "C", attached hereto and made a part of this Resolution.

SECTION 3: To implement the amendments adopted herein, the Planning Commission of the City of Morro Bay, California hereby finds as follows:

1. That the above recitations are true and correct and constitute the findings of the Planning Commission in this matter.

2. That he proposed amendments to the General Plan and Coastal Land Use Plan will not be injurious or detrimental to the health, safety, comfort, general welfare or well-being of the persons residing or working in the community.

3. That the proposed amendments are in general conformance with the intent of the City General Plan and Coastal Land Use Plan; and

4. That proposed amendments to the General Plan and Coastal Land Use Plan are in compliance with the intent, objectives, and all applicable policies and provisions of the California Coastal Act.

SECTION 4: If any section, subsection, clause or phrase or portion of this resolution is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of all other provisions of this ordinance.

The Planning Commission hereby declares that it would have recommended approval of the amendments codified as Exhibit B and Exhibit C, and each chapter, section, subsection, sentence, clause and phrase or portion thereof, irrespective of the fact that any one or more of the sections, subsections, sentences, clauses, or phrases or portions thereof be declared invalid or unconstitutional.

PASSED AND ADOPTED by the Morro Bay Planning Commission Upon motion by Commissioner Lucas and seconded by Commissioner Sadowski at a regular meeting thereof held on this 21st day of October 2014 on the following vote:

AYES: Sorenson, Sadowski, Lucas, Luhr and Tefft

NOES: None

ABSENT: None

ABSTAIN: None

_____
Robert Tefft, Chairperson

ATTEST

_____
Rob Livick, Planning Secretary

The foregoing resolution was passed and adopted this 21st day of October 2014.

EXHIBIT "B"

Amendment of General Plan Land Use, Open Space and Conservation Element Section 13.C2a

Whereas underlined text is new language.

II. General Plan Land Use, Open Space and Conservation Element

C. Land Use Classifications and Land Use Plan Maps

2. Land Use Classifications

a. Residential Land Uses: Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics. (LCP 22)

Density ranges area as follows:

Limited Density	-	up to 2 dwelling units per acre
Low Density	-	up to 4 dwelling units per acre
Low-Medium Density	-	4 – 7 dwelling units per acre
Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915, density bonuses for affordable housing shall be granted to the extent that they have access to adequate water and sewer services and do not lead to adverse impacts, and that not withstanding the density bonus, the resultant development is consistent with all other provisions of the General Plan and City ordinances.

EXHIBIT "C"

Amendment of Coastal Land Use Plan Section II.C1

Whereas underlined text is new language.

II. Land Use Plan Map and General Land Use Policies

C. Land Use Designations

1. Residential Land Uses

Five residential land use categories are established to provide for a wide range of densities. The purpose is to ensure that residential land is developed to a density suitable to its location and physical characteristics.

One type of residential development that the City would encourage is cluster development. Some of the advantages include increased open space, better visual qualities, additional preservation of sensitive sites, decreased cost of municipal services and an opportunity to provide more affordable housing.

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Medium Density	-	7-15 dwelling units per acre
High Density	-	15-27 dwelling units per acre

Consistent with Government Code Section 65915 and Coastal Act Section 30604(f), density bonuses for affordable housing shall be granted in the Coastal Zone to the extent that they have access to adequate water and sewer services and do not lead to adverse coastal resource impacts, and that not withstanding the density bonus, the resultant development is consistent with all other provisions of the LCP.

AGENDA NO: C-1
MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: November 19, 2014**

FROM: **Eric Endersby, Harbor Director**

SUBJECT: **Adoption of Ordinance No. 588 Amending Section 15.04.150 of the Morro Bay Municipal Code Relating to Commercial Fishing Vessel Slip Qualifications**

RECOMMENDATION:
Staff recommends the City Council adopt Ordinance No. 588 after reading the title only and waiving further reading.

SUMMARY:
Ordinance 588 was introduced at the regular City Council meeting held on November 12, 2014. This is the legally required second reading for non-urgency ordinances. After the second reading, by title only with further reading waived, it is recommended the Council adopt the ordinance, which will then become effective on the 31st day after its adoption.

Prepared By: __EE___	**Dept Review:__EE___**
City Manager Review: _____	
City Attorney Review: _____	

ORDINANCE NO. 588

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA AMENDING SECTION 15.04.150 OF THE MORRO BAY MUNICIPAL CODE RELATING TO COMMERCIAL FISHING VESSEL SLIP QUAILFICATIONS

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, Section 15.04.150 currently refers to vessels' net tonnage as a qualifying measuring guide to be eligible for a Morro Bay commercial slip; and

WHEREAS, net documented tonnage of a vessel in most cases does not truly represent the fishing potential of the vessel for qualification.

NOW, THEREFORE, the City Council of the City of Morro Bay does ordain as follows:

SECTION 1: Section 15.04.150 of the Morro Bay Municipal Code is hereby amended to read as follows:

A. "Vessels of a commercial nature" means vessels for which the state of California, Department of Fish and Wildlife has issued a current commercial fishing license, and whose owner or operator holds a current commercial fishing license, and which, within the current calendar year, has been actively used for commercial fishing activities.

B. Such use shall be evidenced by one of the following: (i) for any vessel measuring 26 feet or less, gross earnings or fish sales totaling a minimum of $5,000 per year must be provided, (ii) for any vessel measuring greater than 26 feet in length, gross earnings or fish sales totaling a minimum of $10,000 per year must be provided, (iii) the vessel has fished at least ninety days in the calendar year.

C. Gross earnings or fish sales shall be evidenced by state of California, Department of Fish and Wildlife commercial fish receipts or by the official commercial fish receipts of other west coast states.

D. Proof of ninety days fishing shall be established as provided for in Resolution 23-91 as may be amended by the city council, except that use of float plans for qualification purposes is eliminated.

SECTION 2: This Ordinance shall take effect 30 days after its adoption. The City Clerk, or her duly appointed deputy, shall attest to the adoption of this Ordinance and shall cause this Ordinance to be published and posted in the manner required by law.

INTRODUCED at a regular meeting the of the City Council of Morro Bay, held on the 12th day of November, 2014 by motion of Mayor Irons seconded by Councilmember Christine Johnson.

PASSED AND ADOPTED on the ____ day of ____ , 2014, by the following vote:

AYES:
NOES:
ABSENT:

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

APPROVED AS TO FORM:

_____
JOSEPH W. PANNONE, City Attorney

AGENDA NO: C-2

MEETING DATE: 12/9/14

Staff Report

TO: **Honorable Mayor and City Council** **DATE: November 24, 2014**

FROM: **David Buckingham, City Manager**

SUBJECT: **Request for Authorization to hold Study Sessions Reaffirming, and as Required, Reprioritizing the City's 2013-2015 Goals and Extending them to July 2016**

RECOMMENDATION

Staff recommends the Council hold two 1-hour study sessions in January 2015 to reaffirm and reprioritize our current 2013-2015 City Goals while also identifying key program elements under each category for 2015-2016.

ALTERNATIVES

1. Conduct a full 3-4 month goal setting process in Feb – May, 2015, using a consultant and with multiple public input venues and opportunities to craft a new set of 2-year goals.
2. Conduct no goal setting or affirmation and extend the current goals through 2016.

FISCAL IMPACT

The recommended course of action will have minimal cost implications: primarily the staff time taken in preparation for the study sessions. Alternative #1 will take a significant amount of Council, staff and public time, and perhaps $5,000 in consultant fees.

SUMMARY

In early 2013, the City engaged a consultant to lead a 4-month goal setting process that resulted in 10 City Goals for the period July 2013 – July 2015. A combination of workshops, surveys, and special meetings were used to develop those goals. None of the goals for that two year period have been completed, and a large measure of energy for perhaps 12 months of the 2-year goal period was consumed with other items. While normal strategic planning would require a goal-setting process for Feb – May 2015 to develop a new set of 2015-2017 bi-annual goals, the current 10 City Goals remain valid and require significant resourcing to complete. Additionally, during the Feb – May 2015 period the staff, Council and public will be decisively engaged with a

Prepared By: _____ **Dept Review:**_____

City Manager Review: _____

City Attorney Review: _____

number of key projects, all requiring measurable public input, including the GP/LCP development process, key WRF decisions, the Local Economic Action Plan process, and consideration and possible implementation of Management Partners recommendations. Instead of a time consuming and costly rewrite of our goals, staff recommends Council conduct two study/workshop sessions to reaffirm and reprioritize our current 10 goals and then extend those goals until July 2016 while budgeting for a new goal-setting process in Feb – May 2016.

BACKGROUND

- Staff envisions a biennial goal setting strategic planning process for the City of Morro Bay, conducted in January – May every other year to set City goals for the following two fiscal years. For example, goal setting in Jan-May 2016 to set Jul 2016 to Jun 2018 goals.

- A detailed goal setting process was led by Don Maruska and Company in early 2013.

- That process concluded with our Jul 2013 – Jun 2015 City Goals of:
    1. Develop New WRF
    2. Improve Streets
    3 Update GP/LCP for Current and Future Land Use Needs
    4. Maintain Core Public Safety Services
    5. Ensure Fiscal Sustainability
    6. Support Economic Development
    7. Improve City Infrastructure
    8. Enhance Quality of Life
    9. Boost Community Disaster Preparedness
    10. Leverage Outside Resources to Achieve City Goals

The City has been working on those goals for 18 months. However, for a number of reasons, significant progress has not been made on many of those goals.

- With the exception of Goals #1, #4 and #10, there is still significant work to be done; and, with respect to Goal #1, much hard work remains. Similarly, there is still much untapped potential in Goal #10. In short, the current City goals noted above remain valid and staff does not foresee any emerging goals that may trump one of the 10 current goals.

- Further, residents will have significant opportunities for public input into a number of critical projects in the Feb – May 2015 time period, including WRF, GP/LCP, LEAP and the Management Partners recommendations.

- If the Council affirms the current City Goals and extends them through June 2016, then staff will budget and prepare for a Feb – May 2016 goal setting session, extending our strategic planning with a new set of Jul 2016 – 2018 goals.

DISCUSSION

Staff has provided three recommendations:

One, which we don't recommend, is to pay for and conduct another full-up goal setting process to develop 10 new goals for the Jul 2015 – Jun 2017 bi-annum.

A second, also not recommended, is to punt until 2016.

Staff recommends a balanced solution in which the new Council conducts two study sessions in Jan 2015 to affirm and, if needed, reprioritize our current 10 goals. This will give the incoming Councilmembers buy-in with the goals, as well as allow the whole Council the ability to ensure the current goals address City priorities. This will also save time and money from being spent on a process that staff assesses to be unnecessary since our current 10 goals are in need of that financial and focused attention.

In addition to reaffirming and perhaps reprioritizing our current 10 goals, staff recommends the council be prepared – at the goal-focused study sessions - to articulate 1-4 program elements, to be accomplished in the Jul 2015 - Jun 2016 fiscal year, for each of the 10 City goals affirmed.

CONCLUSION

Staff recommends the Council approve staff's plan to hold two study sessions in Jan 2015 to affirm and, as required, reprioritize the current 10 City goals and then extend those goals through Jul 2016. Staff further recommends Council direct staff to budget for bi-annual goal setting in the fiscal year 2015-2016 budget to develop the City's Jul 2016 – Jun 2018 bi-annual goals in Jan – May 2016.

AGENDA NO: C-3

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: December 2, 2014**

FROM: **Dave Buckingham – City Manager**

SUBJECT: **Adoption of a Resolution Consenting to the Inclusion of the City of Morro Bay within the Proposed San Luis Obispo County Tourism Marketing District (SLOCTMD)**

RECOMMENDATION

Staff recommends adoption of Resolution 82-14, consenting to the inclusion of the City of Morro Bay to the proposed San Luis Obispo County Tourism Marketing District (SLOCTMD).

ALTERNATIVES

1) Adopt the Resolution as proposed (a 1% assessment), while also directing the Morro Bay Tourism Business Improvement District (TBID) assessment be reduced from 3% to 2%. That would allow the City to join the SLOCTMD, while keeping the total of "BID" assessments in Morro Bay at 3% for those businesses that currently collect the TBID assessment (hotels/motels). RV Parks and Vacation Rentals which are not part of the TBID would collect only the 1% SLOCTMD assessment
2) Choose not to join the SLOCTMD.

FISCAL IMPACT

There is no direct fiscal impact to the City.

- If the SLOCTMD increases tourism in Morro Bay, then the City would see increased TOT and sales tax revenues. It is unlikely joining the SLOCTMD will reduce tourism.
- Staff time in support of SCLOTMD activities are not anticipated to be significant.
- The City of Morro Bay may retain up to 2% of the SLOCTMD amount collected in our jurisdiction (2% of the 1% assessment) to cover incidental costs of administering the assessment.

SUMMARY

Morro Bay must choose whether or not to join the SLOCTMD. The SLOCTMD intends to market SLO County, nationally and internationally, as a destination location. The SLOCTMD will place a 1% assessment on all transient/temporary lodging establishments. The current Morro Bay TBID places a 3% assessment on hotels and motels only. These assessments are added to the hotel rate like a "tax," and thus the lodging establishments are not footing the bill – the overnight guest is paying the assessment. 51.4% of Morro Bay hotels / motels by number and 63.5% by gross revenue have signed the petition to join the SLOCTMD. If Morro Bay joins the TMD, then Morro Bay will be featured – along with other destination locations in the County – in the SLOCTMD's marketing efforts. If the City chooses not to join, no reference to Morro

Prepared By: DB **Dept Review:** ____

City Manager Review: ___DB_____

City Attorney Review: _____

Bay (in pictures, on maps, through descriptions, etc) will be allowed to be made in any SLOCTMD marketing efforts, and the City will not have another chance to join the SLOCTMD for five years.

BACKGROUND

Visit San Luis Obispo County (VSLOC) is a non-profit organization that promotes San Luis Obispo County through advertising, marketing, public relations and group sales. The organization, which is currently funded by annual contributions from local agencies, has been working for over a year to develop a sustainable funding source. After discussions with local governments, hoteliers, and other hospitality partners, VSLOC has moved forward with the development of a countywide Tourism Marketing District (TMD).

The proposed TMD is a type of assessment district specifically called a Tourism Business Improvement District (TBID). In California, TBID's are formed pursuant to the Property and Business Improvement District Law of 1994 (PBID Law), the Parking and Business Improvement Area Law of 1989 (BID Law), or pursuant to an ordinance of a charter city (we are a general law city). The district, as proposed by Visit SLO County, is designed to provide specific benefits directly to those entities being assessed by increasing their room night sales / occupancy rates. It is anticipated marketing, advertising, promotions and sales efforts for assessed businesses will increase tourism, meetings and events, thereby increasing room night sales. Proposed payers include all lodging businesses located within the boundaries of San Luis Obispo County.

Each of the jurisdictions within the proposed TMD have benefitted for several years from local districts funding local marketing, such as has been the success of the 501(c)6 Morro Bay Tourism Bureau which is managed by an Executive Director with oversight from the TBID Advisory Board. The proposed countywide TMD is a new, cooperative effort to collectively market all San Luis Obispo County has to offer for the benefit of all assessed lodging businesses throughout the County.

The proposed TMD assessment rate is one percent (1%) of gross short-term room/RV space/vacation rental revenue (stays of 30 or fewer consecutive days). That would be a new 1% assessment, bringing the City's total assessment to 14% for hotels/motels (10% TOT, 3% TBID and 1% proposed TMD). For RV parks and vacation rentals the total would be 11% since they are not assessed the Morro Bay TBID. In order to be enacted, the proposed TMD assessment must be approved by stakeholder lodging establishments representing 50% + $1 of revenue of all establishments in the proposed assessment district as well as receive an affirmative vote of the governing body of each city participating in the TMD. If a city does not approve the proposed TMD, then it could still move forward in those cities that do approve it and the unincorporated portions of SLO County, if approved by the Board of Supervisors. Assuming the assessment is approved as required, the proposed TMD assessment would be implemented beginning in early 2015, and would continue in accordance with State law for five (5) years, with a projected annual budget of $2,800,000 through 2019.

The proposed TMD would be managed by a fifteen-member Board of Directors. That Board of Directors would also serve as the Board of Directors for VSLOC. Except for the County representative, each Director must be a representative of an assessed lodging business. The

Directors would include the following:

- At least one representative of a lodging business in each jurisdiction
- One representative each from the vacation rental, bed and breakfast and RV Park categories
- One representative appointed by the County of San Luis Obispo
- Three at-large members

In addition to the Board of Directors, the TMD plan establishes a Marketing Committee and an Advisory Committee. The Marketing Committee will consist of 13-18 destination managers and marketing professionals who have been selected through an application process that is managed and reviewed by the VSLOC Board of Directors and staff. The committee's recommendations will guide much of VSLOC's marketing efforts, and their recommendations would be submitted to the VSLOC Board of Directors for approval. The Advisory Committee will be comprised of 10-20 elected officials and City Managers from the jurisdictions that form the TMD. The Advisory Committee will participate in semi-annual meetings and liaise back to the communities they represent with programming updates and overall metrics demonstrating the impacts of the TMD on the County and cities. The Committee would also be briefed on the activities and actions of the Board of Directors and would also review the annual audit of VSLOC. Each participating community will determine its representative(s) to the committee and it is anticipated that the City Manager and a member of the City Council would serve as members.

As part of the annual budget process to spend funds raised through the proposed TMD, the VSLOC Board of Directors would review all staffing costs, including salaries and benefits. The VSLOC Board would have the authority to adjust the original priorities and budget allocations between the categories (Advertising & Promotions, Sales, Marketing, Administration & Research, Contingency/Renewal, and Collection Costs) by no more than fifteen percent per year.

DISCUSSION

The following points are intended to expand on / clarify the status and support for (and against) joining the SLOCTMD.

- *What is the response from other municipalities in SLO County?*
    - San Luis Obispo, Pismo Beach and Paso Robles City Councils all voted 5-0 to join the SLOCTMD.
    - Atascadero and Arroyo Grande vote on Jan 13, 2015. There is very strong support (100% and 80%, respectively) from hotels in both of those cities.
    - Grover Beach votes on Jan 20, 2015 and they have majority support of hotel/motels to join.

- *What is the RV Park situation?*
    - State Parks do not collect any type of TOT; thus, State Park RV operations would not be subject to the SLOCTMD.
    - The mechanism used for the SLOCTMD assessment collection is TOT; thus, if you don't pay TOT, you cannot be included in the assessment.

- RV Parks in the unincorporated areas of SLO County do not pay TOT; thus, they are not affected by this assessment. (There was a County decision at some point in the past not to include RV parks in TOT)
- RV parks in Morro Bay would be included in this assessment since they pay TOT.
- RV parks in Morro Bay are not assessed the 3% Morro Bay TBID.
- RV parks in Pismo Beach and Paso Robles supported the SLOCTMD.
- If enacted, then the SLOCTMD at a typical Morro Bay RV Park will raise rates about 45 cents per night.

- *What does this look like on a receipt – both current and future. (Vacation rentals are affected like MB RV parks in the tables below.)*
  - **Current Percentages**

	Hotel/Motel	MB RV Park	State RV Park
TOT	10%	10%	0%
TBID	3%	0%	0%
TMD	0%	0%	0%
Total	**13%**	**10%**	**0%**

  - **Future (in the SLOCTMD) Percentages**

	Hotel/Motel	MB RV Park	State RV Park
TOT	10%	10%	0%
TBID	3%	0%	0%
TMD	1%	1%	0%
Total	**14%**	**11%**	**0%**

  - **Current $$ Example**

	Hotel/Motel	MB RV Park	State RV Park
"Nightly Rate"	$100.00	$45.00	$50.00
TOT	$10.00	$4.50	$0.00
TBID	$3.00	$0.00	$0.00
TMD	$0.00	$0.00	$0.00
Total	**$113.00**	**$49.50**	**$50.00**

  - **Future $$ Example**

	Hotel/Motel	MB RV Park	State RV Park
"Nightly Rate"	$100.00	$45.00	$50.00
TOT	$10.00	$4.50	$0.00
TBID	$3.00	$0.00	$0.00
TMD	$1.00	$0.45	$0.00
Total	**$114.00**	**$49.95**	**$50.00**

- *What are the current T/BID rates in other cities in the county?*

SLO	*AG*	*Pismo*	*Grover*	*Atascadero*	*Paso*	*County*
2%	*2%*	*1%*	*0%*	*2%*	*2%*	*2%*

- *Will the additional 1% assessment scare away business?*
    - There is little evidence that TOT and BID assessments have any affect on visitor lodging decisions. Most evidence shows that tourists decide on a destination and then compare rates between properties at that location but do not consider TOT or BID rates.
    - If approved, then the SLOCTMD will assess all TOT paying properties in the County. Thus, there will be no relative increase compared to other cities.

- *Morro Bay's 3% TBID is already higher than other cities in the county, what can we do to even the gap?*
    - Morro Bay could keep the 3% TBID and choose not to join the SLOCTMD. That would even the gap with most other cities (closing it to 1% with Pismo Beach), but would exclude Morro Bay from the likely benefits of being part of the SLOCTMD.
    - Morro Bay could join the SLOCTMD, while simultaneously reducing our TBID assessment from 3% to 2%. That would also lessen / even the gap, but would slash our TBID revenue by 33%.

- *What is the current response of Morro Bay hotels / motels (only)?*
    - 51.4% (18 of 35) hotels / motels (by number of properties) have petitioned in support of joining the TMD.
    - These represent 63.5% of hotel/motel revenue.
    - These represent 72% of available rooms.

- *The legal requirement is that 50%+$1, by gross receipts, of all properties proposed to be included in the assessment must petition "yes." What is the current status in Morro Bay by revenue of all affected businesses including RV parks and Vacation Rentals?*

    - The current Morro Bay "yes" rate by gross receipts is 53.6%.

- *What is the position of the Morro Bay TBID?*
    - The Morro Bay Tourism Bureau passed the following motion on Nov. 17, 2014: "The Morro Bay Tourism Bureau Board recommends that if hotel/motel votes supporting the Tourism Marketing District (TMD) comes in at 50% plus one dollar of hotel/motel revenue, the Morro Bay Tourism Bureau recommends that City Council support an additional (1%) one percent County-Wide Tourism Marketing District (TMD) which would include all applicable lodging in the city of Morro Bay."
    - The vote on the Bureau Board was 4-3. There has been no indication what level of support from hotels / motels may have generated TBID support with a larger majority.
    - Currently, 63.5% of hotels and motels (by gross receipts) have petitioned to join.
    - Therefore, based on the response of Morro Bay hotels / motels, the official TBID

Board position is that they support joining the SLOCTMD.

- *What is expert opinion?*
    - Visit California, the State tourism agency, strongly recommends approval of a county-wide TMD.
    - The SLO Economic Vitality Corporation strongly recommends approval.
    - Most evidence we have seen demonstrates that regional TMDs have a positive impact across the region.

- *Can Morro Bay join the SLOCTMD by "funneling" 1% from our TBID to the SLOCTMD?*
    - No, the applicable law does not allow that.

- *Can Morro Bay exempt RV Parks?*
    - No, that would require a restart of the entire process.
    - In some cities, one of the reasons the hotels supported the effort was because *all* lodging properties were included, essentially leveling a perceived inequity in the playing field. That is, some cities may not support if RV parks are exempted.

- *Will this have a negative financial affect on Morro Bay residents?*
    - The only direct affect on Morro Bay residents will be if they stay overnight in a Morro Bay lodging establishment in which case they will pay, on average, 1-2 dollars more per night.
    - If the SLOCTMD actually causes tourism to go down, then joining the SLOCTMD may have a negative affect on the City's TOT and sales tax revenue.
    - There is no evidence the SLOCTMD will cause tourism to go down, and the express purpose of the SLOCTMD is to increase tourism across the county.

CONCLUSION

Since staff does not have particular expertise in tourism marketing and operations, we do not take a strong position on this proposal. However, staff makes the following observations:

- Morro Bay has met the legal requirements to join the SLOCTMD.
- All of our SLO County sister cities have already strongly supported the SLOCTMD or appear poised to do so.
- There is no evidence an additional 1% assessment will have any negative impact on tourism in Morro Bay.
- There is strong evidence local and regional tourism BIDs can have a powerful and positive affect on tourism.
- The Morro Bay TBID appears to have had very positive affect on tourism in Morro Bay.
- The Morro Bay TBID, Visit California and the SLO EVC all recommend approval.
- While the RV park situation may not be comparatively ideal (based on State park and

unincorporated area disparities), there is little reason to believe a 35-45 cent per night increase will cause anyone to choose to avoid a Morro Bay RV park.

- Joining the SLOCTMD will have no direct negative financial impact on Morro Bay residents while potentially having a very positive indirect financial impact on the City and its residents.

Based on all the evidence we have reviewed, staff recommends the Council adopt Resolution 82-14 consenting to the inclusion of the City of Morro Bay to the proposed San Luis Obispo County Tourism Marketing District.

ATTACHMENTS

Proposed Resolution 82-14
SLOCTMD Management Plan
Letter from Visit California
Letter from SLO Economic Vitality Corporation

RESOLUTION NO. 82-14

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY CONSENTING TO THE INCLUSION OF THE CITY WITHIN THE PROPOSED SAN LUIS OBISPO COUNTY TOURISM MARKETING DISTRICT (SLOCTMD)

T H E C I T Y C O U N C I L
City of Morro Bay, California

WHEREAS, tourism is an important contributor to the economy of the City and the promotion of the City's tourist lodging establishments serves an important public purpose; and

WHEREAS, Visit San Luis Obispo County (VSLOC), is a non-profit organization that promotes San Luis Obispo County through advertising, marketing, public relations and group sales and wishes to establish a sustainable funding source to further those efforts; and

WHEREAS, the County of San Luis Obispo has initiated the formation of the proposed SLOCTMD pursuant to the Property and Business Improvement District Law of 1994, Streets and Highways Code sections 36600 *et seq.*, to promote lodging businesses in San Luis Obispo County; and

WHEREAS, Streets and Highways Code section 36620.5 provides a county may not form a district within the territorial jurisdiction of a city without the consent of the city council of that city; and

WHEREAS, the proposed SLOCTMD is an assessment district designed to provide specific benefits directly to those entities being assessed; and

WHEREAS, marketing, advertising, promotions and sales efforts for assessed businesses will increase overnight tourism which will then increase the demand for hotel/motel rooms, RV spaces and vacation rentals; and

WHEREAS, the proposed SLOCTMD would include all lodging businesses located within the boundaries of San Luis Obispo County that currently also pay transit occupancy taxes, and

WHEREAS, the Morro Bay hotel/motel/B&B owners, RV park owners and vacation rental owners that (i) would be levied through the SLOCTMD and (ii) account for 53.6% of the total gross receipts reported in 2013 by those lodging properties support the formation of the proposed SLOCTMD, as providing a means to collectively market the San Luis Obispo County area and remain competitive with comparable markets; and

WHEREAS, at its meeting of November 17, 2014, the Morro Bay Tourism Bureau passed a motion of support for the SLOCTMD.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay, California, as follows:

1. The recitals set forth herein are true and correct.

2. Pursuant to Streets and Highways Code section 36620.5, the City Council consents to the inclusion of the City of Morro Bay within the proposed San Luis Obispo County Tourism Marketing District, and as set forth in the attached SLOCTMD Management Plan (Exhibit A).

3. The City Clerk is hereby directed to transmit a certified copy of this Resolution to the Clerk of the SLO County Board of Supervisors.

4. This Resolution is effective upon its adoption.

PASSED AND ADOPTED by the City Council of the City of Morro Bay at a regular meeting thereof held on the 9th day of December 2014 on the following vote:

AYES:
NOES:
ABSENT:

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

Management District Plan

San Luis Obispo County Tourism Marketing District

July 30, 2014

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Prepared by Civitas

CIVITAS

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I. OVERVIEW

Developed by a nonprofit corporation, Visit San Luis Obispo County (VSLOC), the San Luis Obispo County Tourism Marketing District (SLOCTMD) is an assessment district proposed to provide specific benefits to payors, by funding marketing, advertising, promotions, and sales efforts for assessed businesses. Each of the jurisdictions within the Tourism Marketing District (TMD) has benefitted for several years from local districts funding local marketing. This county-wide TMD is a new, cooperative effort to collectively market all that the County has to offer for the benefit of assessed lodging businesses.

Location: The proposed SLOCTMD includes all lodging businesses located within the boundaries of the cities of Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo, and the unincorporated portions of the County of San Luis Obispo.

Services: The SLOCTMD is designed to provide specific benefits directly to payors by increasing room night sales. Marketing, sales, promotions, and advertising will increase overnight tourism and market payors as tourist, meeting, and event destinations, thereby increasing room night sales.

Budget: The total SLOCTMD annual budget for the initial year of its five (5) year operation is anticipated to be approximately $2,800,000. This budget is expected to fluctuate as room sales do, but is not expected to significantly change over the SLOCTMD's term.

Cost: The annual assessment rate is one percent (1%) of gross short-term (stays 30 or fewer consecutive days) room rental revenue. Based on the benefit received, assessments will not be collected on certain stays as described in Section V.

Duration: The proposed SLOCTMD will have a five (5)-year life. The SLOCTMD assessment will be implemented beginning January 1, 2015 through December 31, 2019. Once per year beginning on the anniversary of the formation of the district there is a 30-day period in which owners paying more than 50% of the assessment may protest and initiate a Board of Supervisors hearing on district termination.

Management: Visit San Luis Obispo County (VSLOC) is the nonprofit corporation which will serve as the SLOCTMD's Owners' Association. As the Owners' Association, VSLOC is responsible for managing funds and implementing programs in accordance with this Plan. The VSLOC Board of Directors and staff will be responsible for day-to-day program management and direction, within the guidelines set by this Plan. On an annual basis, VSLOC must provide a report on TMD activities and expenditures to the Board of Supervisors.

II. IMPETUS

For many years, lodging businesses throughout San Luis Obispo County have been served by individual tourism business improvement districts. While those TIDs have been successful in their mission of increasing room night sales locally, there is still opportunity for businesses to benefit from county-wide efforts.

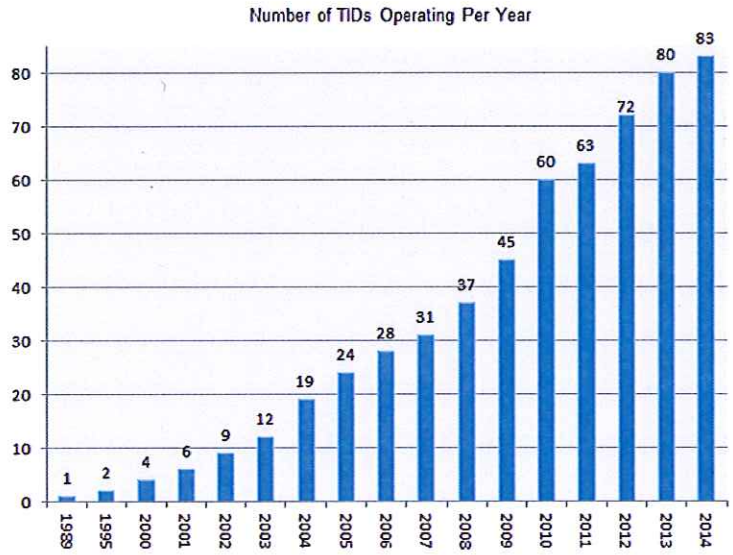
The proposed SLOCTMD is an opportunity for lodging business from throughout the County to come together and engage in joint marketing, advertising, sales, and promotional efforts. This joint effort will help foster collaboration and ensure TMD dollars are spent in the most streamlined manner possible. It will aim to establish San Luis Obispo County as a premiere Central Coast tourism destination and a leader in the California tourism community. Programs will increase lodging business revenue by positioning, branding, and promoting San Luis Obispo County as a preferred destination for regional, national, and global overnight visitors.

The bottom-line purpose of the proposed SLOCTMD is two-fold: to put more heads in beds, and to increase the average daily rate charged for those beds. To that end, the programs to be funded by the SLOCTMD will have two specific goals: to increase demand for and revenue from room night sales, and to increase awareness of San Luis Obispo County as an overnight destination (which increased awareness will ultimately lead to further room night sales and revenue). The district will also work to increase the average stay-length; thereby increasing room night sales.

In order to increase room night sales and revenue, the proposed programs also have a series of three objectives. The first is to expand the San Luis Obispo County brand to accelerate the destination's competitiveness in California, reach new domestic markets, and build upon key international marketing to bolster overnight room sales and revenue. The second is to manage the Visit San Luis Obispo County brand platform and lead integration of a county-wide strategic plan working in concert with partners to reduce duplication of programming, increase efficiency, and maximize effectiveness of resources to increase overall reach. The final is to create industry resources (research, education, communication, etc.) backed by current data specific to San Luis Obispo County to increase competitiveness against other destinations, and to leverage existing research to extrapolate county-specific information and identify key data points needed to support room night sales.

III. BACKGROUND

TMDs are an evolution of the traditional Business Improvement District. The first TMD was formed in West Hollywood, California in 1989. Since then, over eighty California destinations have followed suit. In recent years, other states have begun adopting the California model – Washington, Montana, and Texas have adopted TMD laws. Several other states are in the process of adopting their own legislation. And, some cities, like Portland, Oregon, have utilized their charter powers to create TMDs without a state law.



California's TMDs collectively raise over $150 million for local destination marketing. With competitors raising their budgets, and increasing rivalry for visitor dollars, it is important that the San Luis Obispo County lodging businesses invest in stable, lodging-specific marketing programs.

TMDs utilize the efficiencies of private sector operation in the market-based promotion of tourism districts. TMDs allow lodging business owners to organize their efforts to increase room night sales. Lodging business owners within the TMD pay an assessment and those funds are used to provide services that increase room night sales.

In California, TMDs are formed pursuant to the Property and Improvement District Law of 1994. This law allows for the creation of a special benefit assessment district to raise funds within a specific geographic area. *The key difference between TMDs and other special benefit assessment districts is that funds raised are returned to the private non-profit corporation governing the district.*

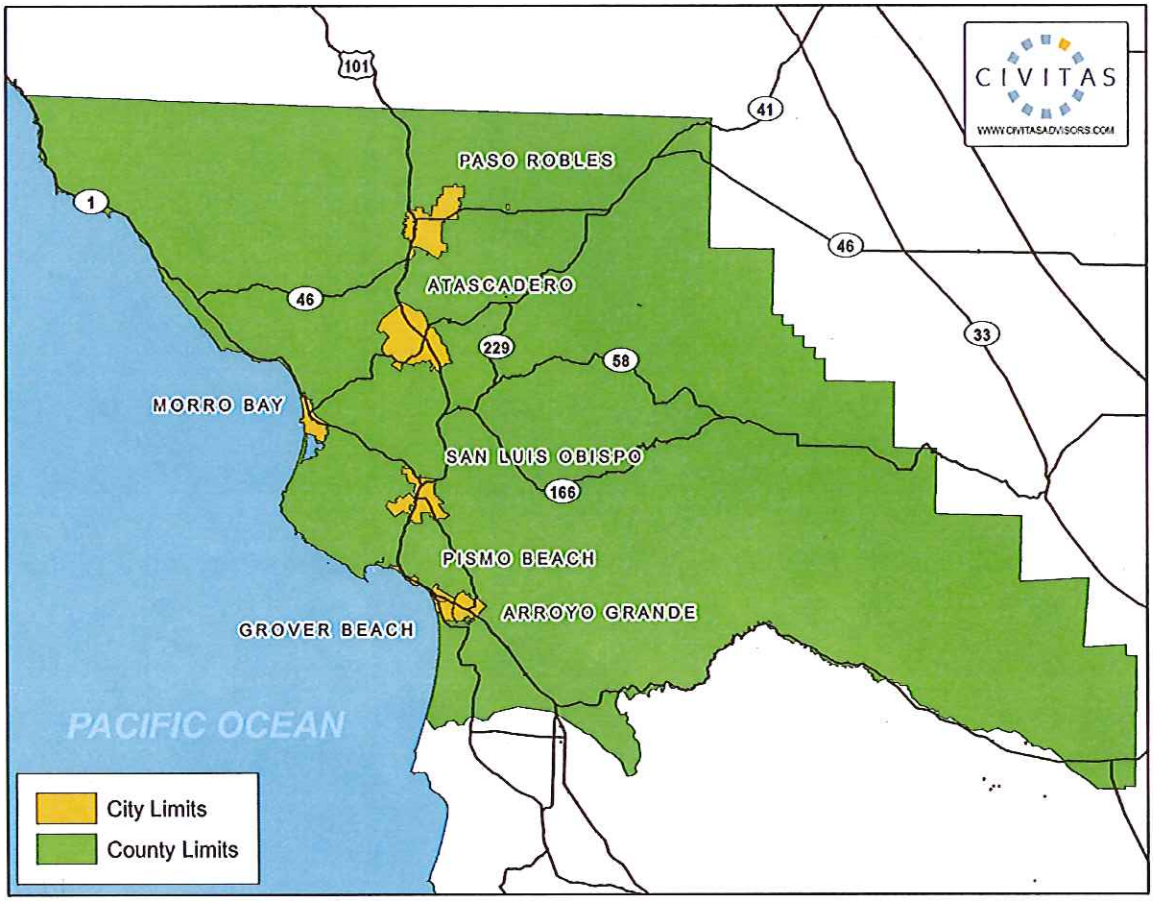
There are many benefits to TMD:

- Funds must be spent on services and improvements that provide a specific and special benefit only to those who pay;
- Funds cannot be diverted to general government programs;
- They are customized to fit the needs of payors in each destination;
- They allow for a wide range of services;
- They are ***designed, created and governed by those who will pay*** the assessment; and
- They provide a stable funding source for tourism promotion.

IV. BOUNDARY

The SLOCTMD will include all lodging businesses, existing and in the future, available for public occupancy within the boundaries of the cities of Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo, and the unincorporated portions of the County of San Luis Obispo. As used herein the term "lodging business" means all businesses which pay transient occupancy tax in each respective jurisdiction.

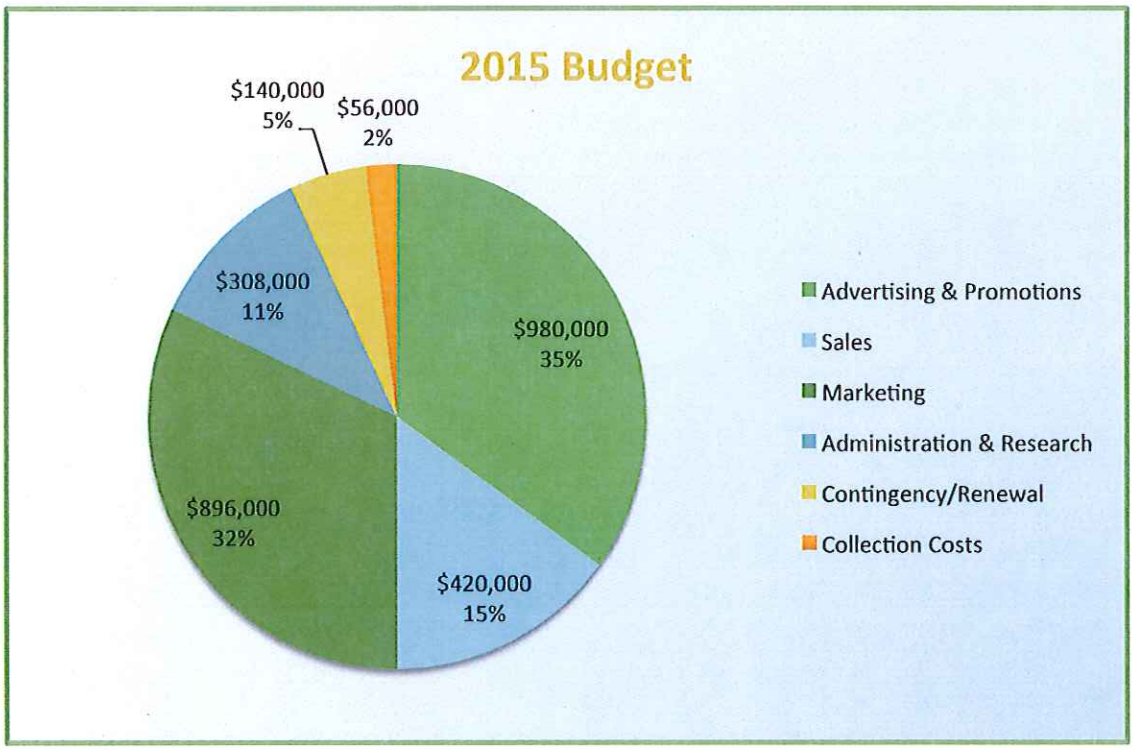
The boundary, as shown in the map below, currently includes 1,321 lodging businesses. A complete listing of lodging businesses within the proposed SLOCTMD can be found in Appendix 2.



V. BUDGET AND SERVICES

A. Annual Service Plan

Assessment funds will be spent to provide specific benefits conferred or privileges granted directly to the payors that are not provided to those not charged, and which do not exceed the reasonable cost to the County of conferring the benefits or granting the privileges. The privileges and services provided with the SLOCTMD funds are sales, marketing, advertising, and promotional programs available only to assessed businesses.



A service plan budget has been developed to deliver services that benefit businesses throughout the District. A detailed annual budget will be developed and approved by the Owners' Association. The table here illustrates the initial annual budget allocations. In the event of a lawsuit against the SLOCTMD, any and all assessment funds may be used for the costs of defending the District.

Although actual revenues will fluctuate due to market conditions, the proportional allocations of the budget shall remain the same. However, the County and the VSLOC board shall have the authority to adjust budget allocations between the categories by no more than fifteen percent (15%) per year. All staffing costs (including salary and benefits) shall be based on the industry standard for comparable positions in San Luis Obispo and similar markets. A description of the proposed improvements and activities for the initial year of operation is below. The same activities are proposed for subsequent years.

Advertising & Promotions

Advertising and promotions efforts will be designed to increase awareness of assessed businesses as overnight destinations.

- Seasonal and event-related promotions and event guides to drive room night sales

- Digital media advertisement and promotions, including social media
- Staff engaged in implementing advertising and promotions activities
- Development and production of a visitors' guide featuring assessed businesses
- Radio, print and tv advertising featuring assessed businesses

Sales

Sales efforts will be designed to attract group, leisure travel, and event business to San Luis Obispo County.

- Consumer communication for the benefit of assessed businesses
- Working with the Film Commission to increase room night sales
- Staff engaged in sales activities
- Attendance of conferences, events, and trade shows to showcase assessed businesses
- Sales missions to increase room night sales

Marketing

Marketing efforts will be designed to market assessed businesses to potential customers and raise awareness of assessed lodging businesses as overnight destinations.

- Strategic alliances with travel associates to benefit assessed businesses
- Brand development and management to attract overnight visitors
- Media and public relations to showcase assessed businesses
- Strategic planning and message positioning to attract overnight visitors
- Development of a media kit to showcase assessed businesses
- Creation of a resource library to assist in sales and marketing efforts
- Staff engaged in marketing activities
- Website development and maintenance to drive room night sales
- Digital marketing to drive room night sales, including blogs, e-newsletters, social media and direct response campaigns
- Event marketing to drive room night sales

Administration and Research

The administrative and operations portion of the budget, which is eleven percent (11%), shall be utilized for administrative (non-program) staffing costs, office costs, and other general program-related administrative costs such as insurance, legal, auditing, and accounting fees. Research on market conditions and opportunities may also be conducted as part of the administration programs.

Collection Costs

The County and each City shall retain a fee not to exceed two percent (2%) of the amount collected in their respective jurisdictions to cover the costs of collecting and forwarding the assessment.

Contingency/Renewal

A prudent portion of the budget will be set aside in a contingency fund, to be used for lower than anticipated collections and unforeseeable costs in carrying out the programs. If at the expiration of the District there are contingency funds remaining, and business owners wish to renew the District, the remaining contingency funds may be used for renewal costs.

B. Determination of Specific Benefit

State law requires that assessment funds be expended on specific benefits conferred directly to the payors that are not provided to those not charged, and which do not exceed the reasonable cost to the County of conferring the benefits. The services in this Management District Plan are designed to provide targeted benefits directly to assessed lodging businesses. These services are tailored not to serve the general public, but rather to serve the specific lodging businesses within the District, e.g., the proposed activities are specifically targeted to increase room night sales for assessed lodging businesses within the boundaries of the District, and are narrowly tailored. SLOCTMD funds will be used exclusively to provide the specific benefit of increased room night sales directly to the assessees. For example, non-assessed businesses will not be featured in SLOCTMD programs and will not receive sales leads from them. The activities paid for from assessment revenues are business services constituting and providing specific benefits to the assessed businesses.

Further, the assessment may be utilized to provide specific government services directly to the payors that are not provided to those not charged, and which do not exceed the reasonable costs to the County of providing the services. In the context of assessment districts, the legislature has recognized that marketing and sales programs like those to be provided by the SLOCTMD are government services. The amount of the assessment is no more than necessary to cover the reasonable costs of the proposed activities, and the manner in which the costs are allocated to a business owner bear a fair share or reasonable relationship to the businesses' benefits received from the proposed activities.

District services will be implemented carefully to ensure they do not exceed the reasonable cost of such services. Funds will be managed by the Owners' Association, and reports submitted on an annual basis to the County. Only assessed businesses will be featured in marketing materials, receive sales leads generated from district-funded activities, be featured in advertising campaigns, and benefit from other district-funded services. Non-assessed businesses will not receive these, nor any other, district-funded services and benefits.

C. Assessment

The annual assessment rate is one percent (1%) of gross short-term (stays 30 or fewer consecutive days) room rental revenue. Based on the benefit received, assessments will not be collected on the following stays:

1. Stays of more than thirty (30) consecutive days;
2. Stays by any officer or employee of a foreign government who is exempt from Transient Occupancy Taxes by reason of express provision of federal law or international treaty;
3. Employees of Federal Credit Unions while on official credit union business; and
4. Stays pursuant to contracts executed prior to January 1, 2015.

The term "gross room rental revenue" as used herein means the consideration charged, whether or not received, for the occupancy of space in a hotel valued in money, whether to be received in money, goods, labor or otherwise, including all receipts, cash, credits, and property and services of any kind or nature, without deduction. Gross room rental revenue shall not include any federal, state or local taxes collected, including but not limited to transient occupancy taxes. Any other charges shall be considered gross revenue only in accordance with the local transient occupancy tax.

The amount of assessment, if passed on to each transient, shall be disclosed in advance and separately stated from the amount of rent charged and any other applicable taxes, and each transient shall receive a receipt for payment from the business. The assessment shall be disclosed as the "TMD Assessment." The assessment shall not be considered revenue for any purposes, including calculation of transient occupancy taxes.

Bonds will not be issued.

D. Penalties and Interest

1. Any business which fails to remit the assessment within the time required shall pay a penalty of ten percent of the amount of the assessment in addition to the amount of the assessment.
2. Any business which fails to remit any delinquent remittance on or before a period of thirty days following the date on which the remittance first became delinquent shall pay a second delinquency penalty of ten percent of the amount of the assessment in addition to the amount of the assessment and the ten percent penalty first imposed.
3. If it is determined that nonpayment of any remittance is due to fraud, a penalty of twenty-five percent of the amount of the assessment shall be added thereto in addition to the above penalties.
4. In addition to the penalties imposed, any business which fails to remit any assessment shall pay interest at the rate of one-half of one percent per month or fraction thereof on the amount of the assessment, exclusive of penalties, from the date on which the assessment first became delinquent until paid.
5. Every penalty imposed and such interest as accrues shall become part of the assessment required to be paid.

E. Time and Manner for Collecting Assessments

The SLOCTMD assessment will be implemented beginning January 1, 2015 and will continue for five (5) years through November 30, 2019. The County and each City will be responsible for collecting the assessment from lodging businesses within their respective jurisdictions on a monthly or quarterly basis (including any delinquencies, penalties and interest). The County and cities shall take all reasonable efforts to collect the assessments from each lodging business. The County and each City shall forward the assessments collected, within thirty (30) days of receipt, to the Owners' Association.

F. Annual Budget

The total five year improvement and service plan budget is projected at approximately $2,800,000 annually, or $14,000,000 through 2019. This amount may fluctuate as sales and revenue increase at assessed businesses, but is not expected to change significantly over the SLOCTMD's term.

VI. GOVERNANCE

A. Owners' Association

The Owner's Association is a nonprofit corporation under contract with the County to manage TMD funds and implement TMD programs. Visit San Luis Obispo County is the nonprofit corporation which will serve as the Owners' Association for the SLOCTMD.

Board of Directors

VSLOC shall have a fifteen-member Board of Directors. The Board will be self-elected, and will strive to ensure that each jurisdiction is represented in approximate proportion to the amount contributed by lodging businesses in that jurisdiction. Each Director must be a representative of an assessed lodging business, except for the County representative. The Nominating Committee will recommend a slate to the Board of Directors that ensures diversity of geography and takes into consideration assessment contribution. The Directors will include the following:

- At least one representative of a lodging business in each jurisdiction
- One representative each from a vacation rental, a bed and breakfast, and an R.V. park
- One representative who is appointed by the County of San Luis Obispo
- Three at-large members

As part of the annual budget process, the VSLOC Board will review all staffing costs, including salaries and benefits.

VSLOC will also create two new committees that will assist in managing and implementing the TMD funds and programs and communicating with the various jurisdictions.

Marketing Committee

The marketing committee's purpose will be to align marketing objectives and complementary strategies between community and county tourism marketing programming to optimize collaboration and reduce duplication. The committee will consist of 13-18 destination managers and marketing professionals who have been selected through an application process that is managed and reviewed by the VSLOC Board of Directors and staff. The committee's recommendations will be submitted to the VSLOC Board of Directors for approval.

Advisory Committee

An advisory committee will be formed. The advisory committee will be comprised of 10-20 elected officials and city managers, who will participate in semi-annual meetings and liaise back to the communities they represent with programming updates and overall metrics demonstrating the impacts of the TMD on the County and cities. Each participating community will determine its representative(s) to the committee.

B. Brown Act and California Public Records Act Compliance

An Owners' Association is a private entity and may not be considered a public entity for any purpose, nor may its board members or staff be considered to be public officials for any purpose. The Owners' Association is, however, subject to government regulations relating to transparency, namely the Ralph M. Brown Act and the California Public Records Act. These regulations are designed to promote public accountability. The Owners' Association is considered a legislative body under the Ralph M. Brown Act (Government Code §54950 et seq.). Thus, meetings of the VSLOC board and certain committees, including standing committees and committees that include a

majority of the members of the board, must be held in compliance with the public notice and other requirements of the Brown Act. The Owners' Association is also subject to the record keeping and disclosure requirements of the California Public Records Act. Accordingly, the Owners' Association shall publicly report any action taken and the vote or abstention on that action of each member present for the action.

C. Annual Report

VSLOC shall present an annual report at the end of each year of operation to the Board of Supervisors pursuant to Streets and Highways Code §36650. The report will include:

1. Any proposed changes in the boundaries of district or in any benefit zones or classification of businesses within the district.
2. The improvements and activities to be provided for that fiscal year.
3. An estimate of the cost of providing the improvements and the activities for that fiscal year.
4. The method and basis of levying the assessment in sufficient detail to allow each business owner, as appropriate, to estimate the amount of the assessment to be levied against his or her business for that fiscal year.
5. The amount of any surplus or deficit revenues to be carried over from a previous fiscal year.
6. The amount of any contributions to be made from sources other than assessments levied pursuant to this part.

D. Audits and Accounting

The County of San Luis Obispo shall be allowed to review the financial records of VSLOC relative to the SLOCTMD. VSLOC shall engage either an independent certified public accountant or the County auditor-controller to conduct annual audits. The audit report must be submitted to the County no more than six (6) months after the fiscal year ends.

APPENDIX 1 – LAW

Property And Business Improvement District Law of 1994

Cal Sts & Hy Code § 36600 (2013)

*** This document is current through the 2013 Supplement ***
(All 2012 legislation, 2012 Governor's Reorg. Plan No. 2 and all
propositions approved by the electorate at the June and November 2012 elections)

§ 36600. Citation of part

This part shall be known and may be cited as the "Property and Business Improvement District Law of 1994."

§ 36601. Legislative findings and declarations

The Legislature finds and declares all of the following:

(a) Businesses located and operating within the business districts of this state's communities are economically disadvantaged, are underutilized, and are unable to attract customers due to inadequate facilities, services, and activities in the business districts.

(b) It is in the public interest to promote the economic revitalization and physical maintenance of the business districts of its cities in order to create jobs, attract new businesses, and prevent the erosion of the business districts.

(c) It is of particular local benefit to allow cities to fund business related improvements, maintenance, and activities through the levy of assessments upon the businesses or real property that benefits from those improvements.

(d) Assessments levied for the purpose of providing improvements and promoting activities that benefit real property or businesses are not taxes for the general benefit of a city, but are assessments for the improvements and activities which confer special benefits upon the real property or businesses for which the improvements and activities are provided.

§ 36602. Purpose of part

The purpose of this part is to supplement previously enacted provisions of law that authorize cities to levy assessments within a business improvement area. This part does not affect or limit any other provisions of law authorizing or providing for the furnishing of improvements or activities or the raising of revenue for these purposes.

§ 36603. Preemption of authority or charter city to adopt ordinances levying assessments

Nothing in this part is intended to preempt the authority of a charter city to adopt ordinances providing for a different method of levying assessments for similar or additional purposes from those set forth in this part. A property and business improvement district created pursuant to this part is expressly exempt from the provisions of the Special Assessment Investigation, Limitation and Majority Protest Act of 1931 (Division 4 (commencing with Section 2800)).

§ 36603.5. Part prevails over conflicting provisions

Any provision in this part that conflicts with any other provision of law shall prevail over the other provision of law.

§ 36604. Severability

This part is intended to be construed liberally and, if any provision is held invalid, the remaining provisions shall remain in full force and effect. Assessments levied under this part are not special taxes.

§ 36605. [Section repealed 2001.]

§ 36606. "Assessment"

"Assessment" means a levy for the purpose of acquiring, constructing, installing, or maintaining improvements and promoting activities which will benefit the properties or businesses located within a property and business improvement district.

§ 36607. "Business"

"Business" means all types of businesses and includes financial institutions and professions.

§ 36608. "City"

"City" means a city, county, city and county, or an agency or entity created pursuant to Article 1 (commencing with *Section 6500) of Chapter 5 of Division 7 of Title 1 of the Government Code*, the public member agencies of which includes only cities, counties, or a city and county, or the State of California.

§ 36609. "City council"

"City council" means the city council of a city or the board of supervisors of a county, or the agency, commission, or board created pursuant to a joint powers agreement and which is a city within the meaning of this part.

§ 36610. 'Improvement"

"Improvement" means the acquisition, construction, installation, or maintenance of any tangible property with an estimated useful life of five years or more including, but not limited to, the following:

(a) Parking facilities.

(b) Benches, booths, kiosks, display cases, pedestrian shelters and signs.

(c) Trash receptacles and public restrooms.

(d) Lighting and heating facilities.

(e) Decorations.

(f) Parks.

(g) Fountains.

(h) Planting areas.

(i) Closing, opening, widening, or narrowing of existing streets.

(j) Facilities or equipment, or both, to enhance security of persons and property within the area.

(k) Ramps, sidewalks, plazas, and pedestrian malls.

(l) Rehabilitation or removal of existing structures.

§ 36611. "Property and business improvement district"; "District"

"Property and business improvement district," or "district," means a property and business improvement district established pursuant to this part.

§ 36612. "Property"

"Property" means real property situated within a district.

§ 36613. "Activities"

"Activities" means, but is not limited to, all of the following:

(a) Promotion of public events which benefit businesses or real property in the district.

(b) Furnishing of music in any public place within the district.

(c) Promotion of tourism within the district.

(d) Marketing and economic development, including retail retention and recruitment.

(e) Providing security, sanitation, graffiti removal, street and sidewalk cleaning, and other municipal services supplemental to those normally provided by the municipality.

(f) Activities which benefit businesses and real property located in the district.

§ 36614. "Management district plan"; "Plan"

"Management district plan" or "plan" means a proposal as defined in Section 36622.

§ 36614.5. "Owners' association"

"Owners' association" means a private nonprofit entity that is under contract with a city to administer or implement activities and improvements specified in the management district plan. An owners' association may be an existing nonprofit entity or a newly formed nonprofit entity. An owners' association is a private entity and may not be considered a public entity for any purpose, nor may its board members or staff be considered to be public officials for any purpose. Notwithstanding this section, an owners' association shall comply with the Ralph M. Brown Act (Chapter 9 (commencing with *Section 54950) of Part 1 of Division 2 of Title 5 of the Government Code*), at all times when matters within the subject matter of the district are heard, discussed, or deliberated, and with the California Public Records Act (Chapter 3.5 (commencing with *Section 6250) of Division 7 of Title 1 of the Government Code*), for all documents relating to activities of the district.

§ 36615. "Property owner"; "Business owner"; "Owner"

"Property owner" means any person shown as the owner of land on the last equalized assessment roll or otherwise known to be the owner of land by the city council. "Business owner" means any person recognized by the city as the owner of the business. "Owner" means either a business owner or a property owner. The city council has no obligation to obtain other information as to the ownership of land or businesses, and its determination of ownership shall be final and

conclusive for the purposes of this part. Wherever this part requires the signature of the property owner, the signature of the authorized agent of the property owner shall be sufficient. Wherever this part requires the signature of the business owner, the signature of the authorized agent of the business owner shall be sufficient.

§ 36616. "Tenant"

"Tenant" means an occupant pursuant to a lease of commercial space or a dwelling unit, other than an owner.

§ 36617. Alternate method of financing certain improvements and activities; Effect on other provisions

This part provides an alternative method of financing certain improvements and activities. The provisions of this part shall not affect or limit any other provisions of law authorizing or providing for the furnishing of improvements or activities or the raising of revenue for these purposes. Every improvement area established pursuant to the Parking and Business Improvement Area Law of 1989 (Part 6 (commencing with Section 36500) of this division) is valid and effective and is unaffected by this part.

§ 36620. Establishment of property and business improvement district

A property and business improvement district may be established as provided in this chapter.

§ 36620.5. Requirement of consent of city council

A county may not form a district within the territorial jurisdiction of a city without the consent of the city council of that city. A city may not form a district within the unincorporated territory of a county without the consent of the board of supervisors of that county. A city may not form a district within the territorial jurisdiction of another city without the consent of the city council of the other city.

§ 36621. Initiation of proceedings; Petition of property or business owners in proposed district

(a) Upon the submission of a written petition, signed by the property or business owners in the proposed district who will pay more than 50 percent of the assessments proposed to be levied, the city council may initiate proceedings to form a district by the adoption of a resolution expressing its intention to form a district. The amount of assessment attributable to property or a business owned by the same property or business owner that is in excess of 40 percent of the amount of all assessments proposed to be levied, shall not be included in determining whether the petition is signed by property or business owners who will pay more than 50 percent of the total amount of assessments proposed to be levied.

(b) The petition of property or business owners required under subdivision (a) shall include a summary of the management district plan. That summary shall include all of the following:

(1) A map showing the boundaries of the district.

(2) Information specifying where the complete management district plan can be obtained.

(3) Information specifying that the complete management district plan shall be furnished upon request.

(c) The resolution of intention described in subdivision (a) shall contain all of the following:

(1) A brief description of the proposed activities and improvements, the amount of the proposed assessment, a statement as to whether the assessment will be levied on property or businesses within the district, a statement as to whether bonds will be issued, and a description of the exterior boundaries of the proposed district. The descriptions and statements do not need to be detailed and shall be sufficient if they enable an owner to generally identify the nature and extent of the improvements and activities and the location and extent of the proposed district.

(2) A time and place for a public hearing on the establishment of the property and business improvement district and the levy of assessments, which shall be consistent with the requirements of Section 36623.

§ 36622. Contents of management district plan

The management district plan shall contain all of the following:

(a) If the assessment will be levied on property, a map of the district in sufficient detail to locate each parcel of property and, if businesses are to be assessed, each business within the district. If the assessment will be levied on businesses, a map that identifies the district boundaries in sufficient detail to allow a business owner to reasonably determine whether a business is located within the district boundaries. If the assessment will be levied on property and businesses, a map of the district in sufficient detail to locate each parcel of property and to allow a business owner to reasonably determine whether a business is located within the district boundaries.

(b) The name of the proposed district.

(c) A description of the boundaries of the district, including the boundaries of benefit zones, proposed for establishment or extension in a manner sufficient to identify the affected lands and businesses included. The boundaries of a proposed property assessment district shall not overlap with the boundaries of another existing property assessment district created pursuant to this part. This part does not prohibit the boundaries of a district created pursuant to this part to overlap with other assessment districts established pursuant to other provisions of law, including, but not limited to, the Parking and Business Improvement Area Law of 1989 (Part 6 (commencing with Section 36500)). This part does not prohibit the boundaries of a business assessment district created pursuant to this part to overlap with another business assessment district created pursuant to this part. This part does not prohibit the boundaries of a business assessment district created pursuant to this part to overlap with a property assessment district created pursuant to this part.

(d) The improvements and activities proposed for each year of operation of the district and the maximum cost thereof. If the improvements and activities proposed for each year of operation are the same, a description of the first year's proposed improvements and activities and a statement that the same improvements and activities are proposed for subsequent years shall satisfy the requirements of this subdivision.

(e) The total annual amount proposed to be expended for improvements, maintenance and operations, and debt service in each year of operation of the district. If the assessment is levied on businesses, this amount may be estimated based upon the assessment rate. If the total annual amount proposed to be expended in each year of operation of the district is not significantly different, the amount proposed to be expended in the initial year and a statement that a similar amount applies to subsequent years shall satisfy the requirements of this subdivision.

(f) The proposed source or sources of financing, including the proposed method and basis of levying the assessment in sufficient detail to allow each property or business owner to calculate the amount of the assessment to be levied against his or her property or business. The plan also shall state whether bonds will be issued to finance improvements.

(g) The time and manner of collecting the assessments.

(h) The specific number of years in which assessments will be levied. In a new district, the maximum number of years shall be five. Upon renewal, a district shall have a term not to exceed 10 years. Notwithstanding these limitations, a district created pursuant to this part to finance capital improvements with bonds may levy assessments until the maximum maturity of the bonds. The management district plan may set forth specific increases in assessments for each year of operation of the district.

(i) The proposed time for implementation and completion of the management district plan.

(j) Any proposed rules and regulations to be applicable to the district.

(k) A list of the properties or businesses to be assessed, including the assessor's parcel numbers for properties to be assessed, and a statement of the method or methods by which the expenses of a district will be imposed upon benefited real property or businesses, in proportion to the benefit received by the property or business, to defray the cost thereof, including operation and maintenance. The plan may provide that all or any class or category of real property which is exempt by law from real property taxation may nevertheless be included within the boundaries of the district but shall not be subject to assessment on real property.

(l) Any other item or matter required to be incorporated therein by the city council.

§ 36623. Procedure to levy assessment

(a) If a city council proposes to levy a new or increased property assessment, the notice and protest and hearing procedure shall comply with *Section 53753 of the Government Code.*

(b) If a city council proposes to levy a new or increased business assessment, the notice and protest and hearing procedure shall comply with *Section 54954.6 of the Government Code*, except that notice shall be mailed to the owners of the businesses proposed to be assessed. A protest may be made orally or in writing by any interested person. Every written protest shall be filed with the clerk at or before the time fixed for the public hearing. The city council may waive any irregularity in the form or content of any written protest. A written protest may be withdrawn in writing at any time before the conclusion of the public hearing. Each written protest shall contain a description of the business in which the person subscribing the protest is interested sufficient to identify the business and, if a person subscribing is not shown on the official records of the city as the owner of the business, the protest shall contain or be accompanied by written evidence that the person subscribing is the owner of the business or the authorized representative. A written protest that does not comply with this section shall not be counted in determining a majority protest. If written protests are received from the owners or authorized representatives of businesses in the proposed district that will pay 50 percent or more of the assessments proposed to be levied and protests are not withdrawn so as to reduce the protests to less than 50 percent, no further proceedings to levy the proposed assessment against such businesses, as contained in the resolution of intention, shall be taken for a period of one year from the date of the finding of a majority protest by the city council.

(c) If a city council proposes to conduct a single proceeding to levy both a new or increased property assessment and a new or increased business assessment, the notice and protest and hearing procedure for the property assessment shall comply with subdivision (a), and the notice and protest and hearing procedure for the business assessment shall comply with subdivision (b). If a majority protest is received from either the property or business owners, that respective portion of the assessment shall not be levied. The remaining portion of the assessment may be levied unless the improvement or other special benefit was proposed to be funded by assessing both property and business owners.

§ 36624. Changes to proposed assessments

At the conclusion of the public hearing to establish the district, the city council may adopt, revise, change, reduce, or modify the proposed assessment or the type or types of improvements and activities to be funded with the revenues from the assessments. Proposed assessments may only be revised by reducing any or all of them. At the public hearing, the city council may only make changes in, to, or from the boundaries of the proposed property and business improvement district that will exclude territory that will not benefit from the proposed improvements or activities. Any modifications, revisions, reductions, or changes to the proposed assessment district shall be reflected in the notice and map recorded pursuant to Section 36627.

§ 36625. Resolution of formation

(a) If the city council, following the public hearing, decides to establish the proposed property and business improvement district, the city council shall adopt a resolution of formation that shall contain all of the following:

(1) A brief description of the proposed activities and improvements, the amount of the proposed assessment, a statement as to whether the assessment will be levied on property, businesses, or both within the district, a statement about whether bonds will be issued, and a description of the exterior boundaries of the proposed district. The descriptions and statements do not need to be detailed and shall be sufficient if they enable an owner to generally identify the nature and extent of the improvements and activities and the location and extent of the proposed district.

(2) The number, date of adoption, and title of the resolution of intention.

(3) The time and place where the public hearing was held concerning the establishment of the district.

(4) A determination regarding any protests received. The city shall not establish the district or levy assessments if a majority protest was received.

(5) A statement that the properties, businesses, or properties and businesses in the district established by the resolution shall be subject to any amendments to this part.

(6) A statement that the improvements and activities to be provided in the district will be funded by the levy of the assessments. The revenue from the levy of assessments within a district shall not be used to provide improvements or activities outside the district or for any purpose other than the purposes specified in the resolution of intention, as modified by the city council at the hearing concerning establishment of the district.

(7) A finding that the property or businesses within the area of the property and business improvement district will be benefited by the improvements and activities funded by the assessments proposed to be levied.

(b) The adoption of the resolution of formation and, if required, recordation of the notice and map pursuant to Section 36627 shall constitute the levy of an assessment in each of the fiscal years referred to in the management district plan.

§ 36626. Resolution establishing district

If the city council, following the public hearing, desires to establish the proposed property and business improvement district, and the city council has not made changes pursuant to Section 36624, or has made changes that do not substantially change the proposed assessment, the city

council shall adopt a resolution establishing the district. The resolution shall contain all of the information specified in paragraphs (1) to (8), inclusive, of subdivision (b) of Section 36625, but need not contain information about the preliminary resolution if none has been adopted.

§ 36626.5. [Section repealed 1999.]

§ 36626.6. [Section repealed 1999.]

§ 36626.7. [Section repealed 1999.]

§ 36627. Notice and assessment diagram

Following adoption of the resolution establishing district assessments on properties pursuant to Section 36625 or Section 36626, the clerk of the city shall record a notice and an assessment diagram pursuant to Section 3114. No other provision of Division 4.5 (commencing with Section 3100) applies to an assessment district created pursuant to this part.

§ 36628. Establishment of separate benefit zones within district; Categories of businesses

The city council may establish one or more separate benefit zones within the district based upon the degree of benefit derived from the improvements or activities to be provided within the benefit zone and may impose a different assessment within each benefit zone. If the assessment is to be levied on businesses, the city council may also define categories of businesses based upon the degree of benefit that each will derive from the improvements or activities to be provided within the district and may impose a different assessment or rate of assessment on each category of business, or on each category of business within each zone.

§ 36628.5. Assessments on businesses or property owners

The city council may levy assessments on businesses or on property owners, or a combination of the two, pursuant to this part. The city council shall structure the assessments in whatever manner it determines corresponds with the distribution of benefits from the proposed improvements and activities.

§ 36629. Provisions and procedures applicable to benefit zones and business categories

All provisions of this part applicable to the establishment, modification, or disestablishment of a property and business improvement district apply to the establishment, modification, or disestablishment of benefit zones or categories of business. The city council shall, to establish, modify, or disestablish a benefit zone or category of business, follow the procedure to establish, modify, or disestablish a property and business improvement district.

§ 36630. Expiration of district; Creation of new district

If a property and business improvement district expires due to the time limit set pursuant to subdivision (h) of Section 36622, a new management district plan may be created and a new district established pursuant to this part.

§ 36631. Time and manner of collection of assessments; Delinquent payments

The collection of the assessments levied pursuant to this part shall be made at the time and in the manner set forth by the city council in the resolution levying the assessment. Assessments levied

on real property may be collected at the same time and in the same manner as for the ad valorem property tax, and may provide for the same lien priority and penalties for delinquent payment. All delinquent payments for assessments levied pursuant to this part shall be charged interest and penalties.

§ 36632. Assessments to be based on estimated benefit; Classification of real property and businesses; Exclusion of residential and agricultural property

(a) The assessments levied on real property pursuant to this part shall be levied on the basis of the estimated benefit to the real property within the property and business improvement district. The city council may classify properties for purposes of determining the benefit to property of the improvements and activities provided pursuant to this part.

(b) Assessments levied on businesses pursuant to this part shall be levied on the basis of the estimated benefit to the businesses within the property and business improvement district. The city council may classify businesses for purposes of determining the benefit to the businesses of the improvements and activities provided pursuant to this part.

(c) Properties zoned solely for residential use, or that are zoned for agricultural use, are conclusively presumed not to benefit from the improvements and service funded through these assessments, and shall not be subject to any assessment pursuant to this part.

§ 36633. Time for contesting validity of assessment

The validity of an assessment levied under this part shall not be contested in any action or proceeding unless the action or proceeding is commenced within 30 days after the resolution levying the assessment is adopted pursuant to Section 36626. Any appeal from a final judgment in an action or proceeding shall be perfected within 30 days after the entry of judgment.

§ 36634. Service contracts authorized to establish levels of city services

The city council may execute baseline service contracts that would establish levels of city services that would continue after a property and business improvement district has been formed.

§ 36635. Request to modify management district plan

The owners' association may, at any time, request that the city council modify the management district plan. Any modification of the management district plan shall be made pursuant to this chapter.

§ 36636. Modification of plan by resolution after public hearing; Adoption of resolution of intention; Modification of improvements and activities by adoption of resolution after public hearing

(a) Upon the written request of the owners' association, the city council may modify the management district plan after conducting one public hearing on the proposed modifications. The city council may modify the improvements and activities to be funded with the revenue derived from the levy of the assessments by adopting a resolution determining to make the modifications after holding a public hearing on the proposed modifications. If the modification includes the levy of a new or increased assessment, the city council shall comply with Section 36623. Notice of all other public meetings and public hearings pursuant to this section shall comply with both of the following:

(1) The resolution of intention shall be published in a newspaper of general circulation in the city once at least seven days before the public meeting.

(2) A complete copy of the resolution of intention shall be mailed by first class mail, at least 10 days before the public meeting, to each business owner or property owner affected by the proposed modification.

(b) The city council shall adopt a resolution of intention which states the proposed modification prior to the public hearing required by this section. The public hearing shall be held not more than 90 days after the adoption of the resolution of intention.

§ 36637. Reflection of modification in notices recorded and maps

Any subsequent modification of the resolution shall be reflected in subsequent notices and maps recorded pursuant to Division 4.5 (commencing with Section 3100), in a manner consistent with the provisions of Section 36627.

§ 36640. Bonds authorized; Procedure; Restriction on reduction or termination of assessments

(a) The city council may, by resolution, determine and declare that bonds shall be issued to finance the estimated cost of some or all of the proposed improvements described in the resolution of formation adopted pursuant to Section 36625, if the resolution of formation adopted pursuant to that section provides for the issuance of bonds, under the Improvement Bond Act of 1915 (Division 10 (commencing with Section 8500)) or in conjunction with Marks-Roos Local Bond Pooling Act of 1985 (Article 4 (commencing with *Section 6584) of Chapter 5 of Division 7 of Title 1 of the Government Code*). Either act, as the case may be, shall govern the proceedings relating to the issuance of bonds, although proceedings under the Bond Act of 1915 may be modified by the city council as necessary to accommodate assessments levied upon business pursuant to this part.

(b) The resolution adopted pursuant to subdivision (a) shall generally describe the proposed improvements specified in the resolution of formation adopted pursuant to Section 36625, set forth the estimated cost of those improvements, specify the number of annual installments and the fiscal years during which they are to be collected. The amount of debt service to retire the bonds shall not exceed the amount of revenue estimated to be raised from assessments over 30 years.

(c) Notwithstanding any other provision of this part, assessments levied to pay the principal and interest on any bond issued pursuant to this section shall not be reduced or terminated if doing so would interfere with the timely retirement of the debt.

§ 36641. [Section repealed 2001.]

§ 36642. [Section repealed 2001.]

§ 36643. [Section repealed 2001.]

§ 36650. Report by owners' association; Approval or modification by city council

(a) The owners' association shall cause to be prepared a report for each fiscal year, except the first year, for which assessments are to be levied and collected to pay the costs of the improvements and activities described in the report. The owners' association's first report shall be due after the first year of operation of the district. The report may propose changes, including, but not limited to, the boundaries of the property and business improvement district or any benefit zones within the district, the basis and method of levying the assessments, and any changes in the classification of property, including any categories of business, if a classification is used.

(b) The report shall be filed with the clerk and shall refer to the property and business improvement district by name, specify the fiscal year to which the report applies, and, with respect to that fiscal year, shall contain all of the following information:

(1) Any proposed changes in the boundaries of the property and business improvement district or in any benefit zones or classification of property or businesses within the district.

(2) The improvements and activities to be provided for that fiscal year.

(3) An estimate of the cost of providing the improvements and the activities for that fiscal year.

(4) The method and basis of levying the assessment in sufficient detail to allow each real property or business owner, as appropriate, to estimate the amount of the assessment to be levied against his or her property or business for that fiscal year.

(5) The amount of any surplus or deficit revenues to be carried over from a previous fiscal year.

(6) The amount of any contributions to be made from sources other than assessments levied pursuant to this part.

(c) The city council may approve the report as filed by the owners' association or may modify any particular contained in the report and approve it as modified. Any modification shall be made pursuant to Sections 36635 and 36636.

The city council shall not approve a change in the basis and method of levying assessments that would impair an authorized or executed contract to be paid from the revenues derived from the levy of assessments, including any commitment to pay principal and interest on any bonds issued on behalf of the district.

§ 36651. Designation of owners' association to provide improvements and activities

The management district plan may, but is not required to, state that an owners' association will provide the improvements or activities described in the management district plan. If the management district plan designates an owners' association, the city shall contract with the designated nonprofit corporation to provide services.

§ 36660. Renewal of district; Transfer or refund of remaining revenues; District term limit

(a) Any district previously established whose term has expired, may be renewed by following the procedures for establishment as provided in this chapter.

(b) Upon renewal, any remaining revenues derived from the levy of assessments, or any revenues derived from the sale of assets acquired with the revenues, shall be transferred to the renewed district. If the renewed district includes additional parcels or businesses not included in the prior district, the remaining revenues shall be spent to benefit only the parcels or businesses in the prior district. If the renewed district does not include parcels or businesses included in the prior district, the remaining revenues attributable to these parcels shall be refunded to the owners of these parcels or businesses.

(c) Upon renewal, a district shall have a term not to exceed 10 years, or, if the district is authorized to issue bonds, until the maximum maturity of those bonds. There is no requirement that the boundaries, assessments, improvements, or activities of a renewed district be the same as the original or prior district.

§ 36670. Circumstances permitting disestablishment of district; Procedure

(a) Any district established or extended pursuant to the provisions of this part, where there is no indebtedness, outstanding and unpaid, incurred to accomplish any of the purposes of the district, may be disestablished by resolution by the city council in either of the following circumstances:

(1) If the city council finds there has been misappropriation of funds, malfeasance, or a violation of law in connection with the management of the district, it shall notice a hearing on disestablishment.

(2) During the operation of the district, there shall be a 30-day period each year in which assessees may request disestablishment of the district. The first such period shall begin one year after the date of establishment of the district and shall continue for 30 days. The next such 30-day period shall begin two years after the date of the establishment of the district. Each successive year of operation of the district shall have such a 30-day period. Upon the written petition of the owners or authorized representatives of real property or the owners or authorized representatives of businesses in the area who pay 50 percent or more of the assessments levied, the city council shall pass a resolution of intention to disestablish the district. The city council shall notice a hearing on disestablishment.

(b) The city council shall adopt a resolution of intention to disestablish the district prior to the public hearing required by this section. The resolution shall state the reason for the disestablishment, shall state the time and place of the public hearing, and shall contain a proposal to dispose of any assets acquired with the revenues of the assessments levied within the property and business improvement district. The notice of the hearing on disestablishment required by this section shall be given by mail to the property owner of each parcel or to the owner of each business subject to assessment in the district, as appropriate. The city shall conduct the public hearing not less than 30 days after mailing the notice to the property or business owners. The public hearing shall be held not more than 60 days after the adoption of the resolution of intention.

§ 36671. Refund of remaining revenues upon disestablishment or expiration without renewal of district; Calculation of refund; Use of outstanding revenue collected after disestablishment of district

(a) Upon the disestablishment or expiration without renewal of a district, any remaining revenues, after all outstanding debts are paid, derived from the levy of assessments, or derived from the sale of assets acquired with the revenues, or from bond reserve or construction funds, shall be refunded to the owners of the property or businesses then located and operating within the district in which assessments were levied by applying the same method and basis that was used to calculate the assessments levied in the fiscal year in which the district is disestablished or expires. All outstanding assessment revenue collected after disestablishment shall be spent on improvements and activities specified in the management district plan.

(b) If the disestablishment occurs before an assessment is levied for the fiscal year, the method and basis that was used to calculate the assessments levied in the immediate prior fiscal year shall be used to calculate the amount of any refund.

APPENDIX 2 – ASSESSED BUSINESSES

Business Name	Address	City	Zip
Shoreline Inn	1 N Ocean Ave	Cayucos	93430
Lake Nacimiento Rentals Inc.	1 OAK SHORES DR	BRADLEY	93426
Shoreline Inn	1 OCEAN BLVD	CAYUCOS	93430
Cayucos Pier View Suites	10 12 14 N OCEAN AVE	CAYUCOS	93430
Richard Woodland	10 N OCEAN AVE #211	CAYUCOS	93430
Richard Woodland	10 N OCEAN AVE #310	CAYUCOS	93430
Catherine Stone Real Estate	10 N Ocean #112	Cayucos	93430
Madonna Inn	100 Madonna Road	San Luis Obispo	93405
World Mark The Club	100 Ocean Avenue	Pismo Beach	93449
SeaVenture Resort	100 Ocean View Avenue	Pismo Beach	93449
Holiday RV Park	100 S. Dolliver	Pismo Beach	93449
Sandcastle Inn	100 Stimson Avenue	Pismo Beach	93449
Ramada Olive Tree Inn	1000 Olive Street	San Luis Obispo	93405
Lola Moe / Roberta Walker	1000 WARREN RD	CAMBRIA	93428
Budget Inn	1001 Olive Street	San Luis Obispo	93405
Rodeway Inn	1001 Olive Street	San Luis Obispo	93401
Oak Hill Cottage	1008 LISA LN	NIPOMO	93444
Avila La Fonda Hotel LLC	101 SAN MIGUEL ST	AVILA BEACH	93424
Poppy Cottage in the Pines	102 San Miguel Street	Cambria	93428
Sea Gypsy Motel	1020 Cypress Street	Pismo Beach	93449
Hotel Cheval	1021 Pine Street	Paso Robles	93446
George Leclercq	103 San Miguel Street	Cambria	93428
Upstairs on Vine	1035 Vine St.	Paso Robles	93446
Alydar Heights	104 ALYDAR PL	PASO ROBLES	93446
Susan Grueneberg	104 San Miguel Street	Cambria	93428
Near Beach House for 6	1046 ST MARY	CAYUCOS	93430
David & Kristina Morey	1049 PACIFIC AVE	CAYUCOS	93430
Beach Bungalow Inn & Suites	1050 Morro Ave.	Morro Bay	93442
Test Hotel 3	1055 MONTEREY D290	SAN LUIS OBISPO	93408
Lake Nacimiento Resort	10625 NACIMIENTO LAKE DR	BRADLEY	93426
Rock View Inn & Suites	1080 Market Avenue	Morro Bay	93442
Sherie Rene Weatherby	10805 FUENTES RD	ATASCADERO	93422
Marta Hendrickson	1084 OCEAN AVE	CAYUCOS	93430
Single Story Ocean Front Home	1084 PACIFIC AVE	CAYUCOS	93430
Kathy Starr	1086 HILLCREST DR	CAMBRIA	93428
Days Inn	1095 Main Street	Morro Bay	93442
Villager Motel	1098 Main Street	Morro Bay	93442
Western States Inn	1099 K ST	SAN MIGUEL	93451
Darling Cottage	11 18th St aka 1795 Pacific Ave.	Cayucos	93430
Econo Lodge	1100 Main Street	Morro Bay	93442

Business Name	Address	City	Zip
Asuncion Ridge Vineyards & Inn	11010 FUENTES RD	ATASCADERO	93422
Paso Robles Inn	1103 Spring Street	Paso Robles	93446
George Henebury	1111 Norswing	Oceano	93445
Cassandra's Dream	1113 PINEWOOD DR	CAMBRIA	93428
Cypress RV & Mobile Home Park	1121 Main Street	Morro Bay	93442
Granada Hotel	1126 Morro Street	San Luis Obispo	93401
Motel 6 Paso Robles	1134 Black Oak Drive	Paso Robles	93446
Best Western PLUS Black Oak	1135 24th Street	Paso Robles	93446
Kelly Fitzpatrick	1135 GREYSTONE WAY	CAMBRIA	93428
Front Street Inn & Spa	1140 Front Street	Morro Bay	93442
Embarcadero Inn	1148 Market St	Morro Bay	93442
Entertain to your Heart's Desires	1150 / 1154 Pacific Blvd.	Oceano	93445
BAYFRONT Inn at the waterfront	1150 Embarcadero	Morro Bay	93442
Flying Caballos Guest Ranch	1150 Farmhouse Lane	San Luis Obispo	93401
Outdoor Living Space Gem	1156 11th St.	Los Osos	93402
Rainbow Ventures Property Management	1160 Price St.	Pismo Beach	93449
JUST Inn at JUSTIN Winery	11680 Chimney Rock Road	Paso Robles	93446
Jack Keely Realty	1179 Pacific	Cayucos	93430
Joe Clark	1184 St Mary Avenue	Cayucos	93430
Spacious Luxury with Morro Rock View	1186 7th Street	Los Osos	93402
Nancy A Moss	1196 PINERIDGE DR	CAMBRIA	93428
Charming Home with Ocean & Morro Rock Views	1197 11th St.	Los Osos	93402
Courtyard by Marriott Paso Robles	120 S. Vine Street	Paso Robles	93446
Masterpiece Motel	1206 Main Street	Morro Bay	93442
Home with Yard, Deck, & Stairs to the Beach	1210 Pacific	Cayucos	93430
Garden Street Inn	1212 Garden Street	San Luis Obispo	93401
Sycamore Mineral Springs Resort	1215 Avila Beach Drive	San Luis Obispo	93405
Santa Rita Inn	1215 Santa Rita Road	Templeton	93456
Adelaide Inn	1215 Ysabel Avenue	Paso Robles	93446
Grover Beach Motel	123 N. 13th St.	Grover Beach	93433
Oak Hill Manor	12345 HAMPTON CT	ATASCADERO	93422
Ernest / Kathryn Rossi	125 Howard Ave.	Los Osos	93402
Cypress Tree Motel	125 S. Ocean Ave.	Cayucos	93430
Charley Kausen	1250 HARVEST RIDGE WAY	PASO ROBLES	93446
Chanticleer Vineyard Bed & Breakfast	1250 Paint Horse Place	Paso Robles	93446
Oceano Inn	1252 Pacific Blvd.	Oceano	93445
Family Beach House	1261 Cass Street	Cayucos	93430
Bungalow by the Bay	1272 4th St.	Los Osos	93402
W.E. Blain	1274 Pacific A	Cayucos	93430
Be Swept off Your Feet	1274 Pacific C	Cayucos	93430
Robert & Marilee Korsinen	1280 ELLIS AVE	CAMBRIA	93428
California Valley Lodge / Motel	12900 SODA LAKE RD	SANTA MARGARITA	93453

Business Name	Address	City	Zip
Beach Front Vacation House	1298 Strand Way	Oceano	93445
Kaleidoscope Inn & Butterfly Gardens	130 E DANA ST	NIPOMO	93444
Charming, Remodeled Cottage	1301 Cass Ave.	Cayucos	93430
San Luis Rental Properties	1304 Santa Rosa	San Luis Obispo	93401
Beachfront Desirable Wind-Blocked Patio	1316 Strand	Oceano	93445
Simple Single Story Home	132 Ash Ave	Cayucos	93430
Robert F. Ghilarducci	133 Bakersfield Ave.	Cayucos	93430
Cayucos Beach Hideaway	133 Cypress Avenue	Cayucos	93430
Guiton Realty (Ocean West, Inc)	1330 Lakeside	Oceano	93445
Carol Wolf	1331 BERWICK	CAMBRIA	93428
Seven Quails Vineyard	1340 Valley Quail Place	Paso Robles	93446
Villa Antonio	135 Howard Avenue	Los Osos	93402
Stephen & Rasa Pullin	1351 BURTON DR	CAMBRIA	93428
Baywood Inn	1370 2nd St	Baywood Park	93402
Grapes & Garden	1371 2nd St	Cambria	93428
Four Decks with Ocean Views	1372 2nd St	Cambria	93428
Large Home on the Beach	1378 Strand Way	Oceano	93445
Eric & Cathy Zacher	1386 RICHARD AVE	CAMBRIA	93428
Pismo Property Management	1390 Price Street	Pismo Beach	93449
Back Bay Inn	1391 2ND ST	LOS OSOS	93402
Mark & Elizabeth Lowerison	1391 BERWICK DR	CAMBRIA	93428
Back Bay Inn	1391 Second Street	Los Osos	93402
Seaworthy, Single Story Home	1397 Pacific Ave	Cayucos	93430
Journey's End	1398 Pacific Ave.	Cayucos	93430
Beachfront Cozy Getaway	1398 Strand Way	Oceano	93445
Robert C. Snyder II	14 18th St.	Cayucos	93430
Tremendous Ocean Views	14 Bakersfield	Cayucos	93430
Cayucos Pier View Suites	14 No. Ocean Ave	Cayucos	93430
Hampton Inn	1400 W. Branch St.	Arroyo Grande	93420
Family Friendly in Cayucos	1401 Pacific Ave.	Cayucos	93430
Beach Lover's Paradise/Right at the Beach	1402 Strand Way	Oceano	93449
Vintage Avila Beach House	141 A First Street	Avila Beach	93424
Tony Skibinski	1415 BERWICK DR	CAMBRIA	93428
Durbano Vacation Rental	1416 LEONARD PL	CAMBRIA	93428
Chartwell Manor	142 A First Street	Cambria	93428
Tim & Susan Theule	142 Corralitos Road	Arroyo Grande	93420
John & Deborah Parker	143 A First Street	Cambria	93428
Oak Tree Hideaway	143 Corralitos Road	Cambria	93428
Sand Aplenty	1432 Strand Way	Oceano	93445
Motel 6 #138	1433 Calle Joaquin	San Luis Obispo	93405
Monika J. Tanhill	144 A First Street	Cambria	93428
Historic Cayucos Beach Home	144 Cayucos Dr.	Cayucos	93430
Bluebird Inn	144 Corralitos Road	Cambria	93428
Unwind on Vine	1445 Vine St.	Paso Robles	93446
Merrell Vacation Rental	145 Corralitos Road	Cambria	93428

Business Name	Address	City	Zip
Dave's Art Farm	1451 Branch Mill Road	Arroyo Grande	93420
Private Retreat	1452 Branch Mill Road	Cambria	93428
Richard Mittleman	1453 Branch Mill Road	Cambria	93428
Earlene or Ernest Subias	1454 Branch Mill Road	Cambria	93428
Canyon Villa B&B	1455 Kiler Canyon Road	Paso Robles	93446
John & Teresa Espinoza	1458 14TH ST	OCEANO	93445
Charming & Historic Cottage	1460 Strand Way	Oceano	93445
Glenn And Shirley Johnson	1465 Pacific	Cayucos	93430
Petit Soleil	1473 Monterey Street	San Luis Obispo	93401
Highway One Rentals	148 N. Ocean	Cayucos	93430
Shady Rest Motel	1485 MISSION ST	SAN MIGUEL	93451
James Kelty & Associates Inc	1493 BURTON DR	CAMBRIA	93428
Historic Saltbox House	150 D Street	Cayucos	93430
Sea View Inn	150 N. 5th St.	Grover Beach	93433
Grover Beach Inn	150 S. 5th St.	Grover Beach	93433
Emiliano Lopez	150 Via Fuchsia	Paso Robles	93446
Hot Tub Fun	1505 Cass Avenue	Cayucos	93430
Beachside Rentals	151 Cayucos Dr.	Cayucos	93430
Pati Hutchinson	151 Park Ave.	Cayucos	93430
Addie Vacation Townhomes	152-158 Addie Street	Pismo Beach	93449
Pam & Steve Lock	1520 KILER CANYON RD	PASO ROBLES	93446
Sue Casa At Oakbrook	1525 TEMPLETON RD	TEMPLETON	93465
Country Club Home Vacation Rental	1527 County Club Drive	Paso Robles	93446
Gary Byrd	1528 BENSON	CAMBRIA	93428
Hampton Inn and Suites- San Luis Obispo	1530 Calle Joaquin	San Luis Obispo	93405
Public Beach Access Across the Street	1533 Pacific	Cayucos	93430
Broski LLC	1550 Apple Orchard	San Luis Obispo	93405
Zenaida Cellars	1550 Highway 46 West	Paso Robles	93446
Keith Or Marlo Franklin	1550 Pacific Ave	Cayucos	93430
Casa Pino Stella	15555 W HIGHWAY 46	TEMPLETON	93465
1560 Strand Way	1560 Strand Way	Oceano	93445
Nana's House	1565 Strand Way	Oceano	93445
David & Bonnie Winders	1570 RICHARD AVE	CAMBRIA	93428
Los Padres Motel	1575 Monterey Street	San Luis Obispo	93401
Rose Garden Inn - SLO	1585 Calle Joaquin	San Luis Obispo	93401
Peltzer's Surf Shack	159 Birch	Cayucos	93430
Beachfront Retreat	1590 Strand Way	Oceano	93445
Susan & Robert McDonald Vacation Rental	1596 CARDIFF DR	CAMBRIA	93428
Diane Curran	1597 Pacific Ave	Cayucos	63430
160 Ocean View Ave	160 Ocean View Ave	Pismo Beach	93449
Clive & Kristine Mettrick	1601 BERWICK	CAMBRIA	93428
Palomar Inn	1601 Shell Beach Rd.	Pismo Beach	93449
Comfort Inn & Suites Lamplighter	1604 Monterey Street	San Luis Obispo	93401
Courtyard by Marriott SLO	1605 Calle Joaquin St.	San Luis Obispo	93405
Valerie Boles	1608 BRADFORD RD	CAMBRIA	93428

Business Name	Address	City	Zip
Old Edna De Solina House	1616 MAXWELLTON ST	San Luis Obispo	93401
Bob & Alexis Woods	1617 ASTOR	CAMBRIA	93428
Hostel Obispo	1617 Santa Rosa Street	San Luis Obispo	93401
Kon Tiki Inn	1621 Price St.	Pismo Beach	93449
Beachfront Luxury in Oceano	1622 Strand Way	Oceano	93445
Motel 6 #1373	1625 Calle Joaquin	San Luis Obispo	93405
Top of the World Paradise	1628 RICHARD AVE	CAYUCOS	93430
Quality Suites - SLO	1631 Monterey Street	San Luis Obispo	93401
Merry Weather Retreat	1635 DREYDON AVE	CAMBRIA	93428
Melrose Home	1635 MELROSE	CAMBRIA	93428
Perfect Beach House Design	1637 Cass	Cayucos	93430
Steps to the Surf	1640 Laguna Dr.	Oceano	93445
Cheryl and Terral Kershaw	1644 STUART ST	CAMBRIA	93428
Stunning Custom Home	16485 Cabrillo Highway	San Simeon	93452
Pismo Coast Village RV Resort	165 S. Dolliver	Pismo Beach	93449
Carlos Cota	1653 RICHARD AVE	CAMBRIA	93428
DeSolina Bridal Suite Cottage/Suite Edna Guest House	1655 Old Price Canyon Road	San Luis Obispo	93401
Nicely Decorated, 3 Bedroom Home	1655 Strand Way	Oceano	93445
Sunbeam Motel	1656 Monterey St	San Luis Obispo	93401
Donald J. Kaplan	1661 ST JAMES RD	CAMBRIA	93428
Beachfront Breaktaking Views	1662 Strand Way	Oceano	93445
4 Houses from the Beach	1670 Laguna Dr.	Oceano	93445
Villa San Luis Motel	1670 Monterey St	San Luis Obispo	93401
Harry Redmond	1675 STUART ST	CAMBRIA	93428
Rebecca Rollins	1681 BENSON AVE	CAMBRIA	93428
Timeless Family Beach House	1698 Pacific Ave	Cayucos	93420
Dolphin Cove Lodge	170 Main Street	Pismo Beach	93449
Morro Dunes RV Park	1700 Embarcadero	Morro Bay	93442
Warm & Friendly Family Home	1702 Pacific	Cayucos	93430
Carol Specht Vacation Rental	1705 ARBOLADO RD	PASO ROBLES	93446
J B Skyline	172 H Street	Cayucos	93430
Charm on Chestnut	1721 Chestnut	Paso Robles	93446
Cute A-Frame Lodge	1722 Strand Way	Oceano	93445
Oceanview House for 6	174 G Street	Cayucos	93430
Split Level Home on the Beach	1742 Strand Way	Oceano	93445
Robert D Hoeck / Meryl Ann Lagotta	1745 PIERCE AVE	CAMBRIA	93428
Jarlath or Diane Oley	1750 SPENCER	CAMBRIA	93428
Dragonfly Ranch LLC	17546 EL MONTE RD	ATASCADERO	93422
Gardner Family Trust	1755 CHESTER LN	CAMBRIA	93428
Judy Aron	1760 BRIARWOOD PL	TEMPLETON	93465
Renee Rubin	1760 STUART ST	CAMBRIA	93428
Almond Hill Vineyard Bed & Breakfast	1760 VALLEY QUAIL PL	PASO ROBLES	93446
Anne Hurbain	1767 NORWICH AVE	CAMBRIA	93428
Cayucos Vacation Rentals	177 N. Ocean	Cayucos	93430

Business Name	Address	City	Zip
Beach Front Retro House	1772 Strand Way	Oceano	93445
Scott & Tani McMillan	1772 STRAND WAY	OCEANO	93445
Roger & Norma Warkentin	1773 SPENCER ST	CAMBRIA	93428
Stephen Monaco	1785 OGDEN DR	CAMBRIA	93428
Peggy Lessinger	1785 ST THOMAS	CAMBRIA	93428
Jimmie O'Brien	1794 BENSON	CAMBRIA	93428
Venteux Vineyards	1795 Las Tablas Road	Templeton	93456
James & Grace Murphy	1795 WALES RD	CAMBRIA	93428
Sherry Ann Molnar	180 I Street	Cayucos	93430
Hawkins Ranch	1800 EL POMAR DR	TEMPLETON	93465
Holiday Inn Express	1800 Monterey Street	San Luis Obispo	93401
Douglas Bedall	1801 BENSON	CAMBRIA	93428
Jill Gonzales	1801 NEWHALL	CAMBRIA	93428
On the Beach B&B	181 North Ocean Ave	Cayucos	93430
William Taylor	1812 PINERIDGE	CAMBRIA	93428
Newly Remodeled, Beachfront Home	1812 Strand Way	Oceano	93445
Abbas Motlagh	1815 MARLBOROUGH	CAMBRIA	93428
Samantha Maybury	1820 WINDSOR BLVD	CAMBRIA	93428
San Luis Obispo Travelodge	1825 Monterey Street	San Luis Obispo	93401
LoJacono	1830 Spring St.	Paso Robles	93446
Barbara F. Roche	1835 AVON AVE	CAMBRIA	93428
Walk to the Beach, Pier & Downtown	184 Birch Ave. #1	Cayucos	93430
Gorgeous & Spacious Home	184 W. Price St.	Nipomo	93444
Lamb Family Trust	1841 OGDEN DR	CAMBRIA	93428
Pismodriftingsand.Com	1843 Strand Way	Oceano	93445
Frank Cutruzolla	1846 BENSON AVE	CAMBRIA	93428
Near Ocean Condo	186 Cypress	Cayucos	93430
George & Karen Johnson	1860 NEWHALL AVE	CAMBRIA	93428
John & Hilary Townsend	1860 WALES RD	CAMBRIA	93428
The John and Janet Moore Trust	1864 PACIFIC AVE	CAYUCOS	93430
Gorgeous Oceanfront	1864 Pacific Ave.	Cayucos	93430
Rock'n JK Farms	1868 MARLBOROUGH LN	CAMBRIA	93428
David Purling	1870 STUART ST	CAMBRIA	93428
Susie Topjian	1872 TWEED AVE	CAMBRIA	93428
Bluebird Inn	1880 MAIN ST	CAMBRIA	93428
Robin Dean Solley	1885 Cass Avenue	Cayucos	93430
Mac Van Duzer Londonderry	1887 LONDONDERRY LN	CAMBRIA	93428
Robert & Amy Lammert	1889 BENSON	CAMBRIA	93428
Ettorre M Or Sylvia Coluzzi	1895 BERWICK ST	CAMBRIA	93428
Best Western Somerset Inn	1895 Monterey Street	San Luis Obispo	93401
Sandra Brockway	1895 SAINT JAMES RD	CAMBRIA	93428
Ragged Point Inn	19019 HIGHWAY 1	RAGGED POINT	93452
All Decked Out	1906 OXFORD AVE	CAMBRIA	93428
George Leclercq	1911 OGDEN DR	CAMBRIA	93428
Maisons de Cambria Vacation Rentals	1912 Pierce Ave.	Cambria	93428

Business Name	Address	City	Zip
John & Deborah Parker	1916 DOVEDALE AVE	CAMBRIA	93428
Vitto Trust Trustee	1919 CIRCLE DR	CAYUCOS	93420
Best Western El Rancho	2460 Main Street	Morro Bay	
Sands Inn & Suites	1930 Monterey Street	San Luis Obispo	93401
Joseph Laing	1938 BERWICK	CAMBRIA	93428
Andrew Graham	194 SAN LUIS PARKWAY	AVILA BEACH	93424
San Luis Creek Lodge	1941 Monterey Street	San Luis Obispo	93401
Dunning Ranch Guest Suites	1945 NIDERER RD	PASO ROBLES	93446
Lana Spitz	1945 OXFORD	CAMBRIA	93428
Sea Pines Golf Resort	1945 SOLANO ST	LOS OSOS	93402
Richard Hanson	1949 ASTOR AVE	CAMBRIA	93428
Resthaven RV and Mobile Home Park	1950 Adelaida Road	Paso Robles	93446
Clyde or Katie Miller	1950 BENSON	CAMBRIA	93428
Super 8 Motel	1951 Monterey Street	San Luis Obispo	93401
Dunning Vineyards Guest Villa	1953 Niderer Road	Paso Robles	93446
River Lodge Motel	1955 Theatre Drive	Paso Robles	93446
Peter & Wanda Gucciardo	1960 WINDSOR BLVD	CAMBRIA	93428
John Or Andrea Foelsch	1961 BURTON	CAMBRIA	93428
Randall Or Margaret Panting	1965 BENSON	CAMBRIA	93428
Ann and George's Bed & Breakfast	1965 NIDERER RD	PASO ROBLES	93446
Robin Anderson	1970 DREYDON AVE	CAMBRIA	93428
Richard Noling	1971 SHERWOOD	CAMBRIA	93428
Roderick & Kathy Smith	1975 RICHARD AVE	CAMBRIA	93428
Her Castle	1978 LONDONDERRY LN	CAMBRIA	93428
Dreydon House	1979 DREYDON AVE	CAMBRIA	93428
Beach House Inn & Suites	198 Main Street	Pismo Beach	93449
Moon Shell	1980 SHERWOOD	CAMBRIA	93428
Frank Or Kristi Mckiney	1981 ST THOMAS	CAMBRIA	93428
Belvino Viaggio Tuscan Retreat B&B	1985 Peachy Canyon Road	Paso Robles	93446
Tree Tops	1985 STUART ST	CAMBRIA	93428
Snug Harbor	1996 EMMONS	CAMBRIA	93428
Carefree House for Eight	20 6th Street	Cayucos	93430
Ron Or Dorothy Michaelis	20 Bakersfield	Cayucos	93430
Cayucos Motel	20 S. Ocean Ave.	Cayucos	93430
Anne Marie & Chris Skelton	200 ADOREE AVE	CAYUCOS	93430
Anna Mae Jorgensen	200 DORSET ST	CAMBRIA	93428
Hollyhock Farms	200 Hollyhock Lane	Templeton	93465
Mary Lynn / Richard Martin	2000 Circle Dr.	Cayucos	93430
Kevin & Dennelle Blain	2001 EMMONS RD	CAMBRIA	93428
Peach Tree Inn	2001 Monterey	San Luis Obispo	93401
Natalie Rabiner	2002 BERWICK DR	CAMBRIA	93428
Cottontail Creek Ranch	2005 COTTONTAIL CREEK RD	CAYUCOS	93430
Becker Family Vacation Rental	201 Adoree Ave.	Cayucos	93430
Apple Farm Inn & Trellis Court	2015 Monterey Street	San Luis Obispo	93401
Javad Sani	202 CHATHAM	CAMBRIA	93428

Business Name	Address	City	Zip
Harriet And Kenneth Khteian	2021 WINDSOR	CAMBRIA	93428
Jack / Barbara Keely	2023 Circle Drive	Cayucos	93430
Al & Donna Lioy	2025 OGDEN DR	CAMBRIA	93428
Lori Adamski-peek	205 KENDAL LN	CAMBRIA	93428
David & Eileen Mckay	2050 EMMONS	CAMBRIA	93428
Lexington Inn	2050 Garfield Street	San Luis Obispo	93401
La Bellasera Hotel & Suites	206 Alexa Court	Paso Robles	93446
Biddle Ranch Vineyard	2060 Biddle Ranch Road	San Luis Obispo	93401
Jordan Rental	2067 SHERWOOD DR	CAMBRIA	93428
La Cuesta Inn	2074 Monterey Street	San Luis Obispo	93401
Sandra Heizenrader	2091 Circle Drive	Cayucos	93430
Nicely Decorated Beach Cutie	2097 Cass	Cayucos	93430
Lovely 4 Bedroom Home	21 11th Street	Cayucos	93430
Cozy Cayucos Home	21 13th Street	Cayucos	93430
Paul Or Kathy Edwards	210 DEVAULT PL	CAMBRIA	93428
Vagabond Inn(slo)	210 Madonna Road	San Luis Obispo	93405
Carol Chubb	210 St. Mary Ave	Cayucos	93430
Russell & Linda Matsumoto	210 WEYMOUTH ST	CAMBRIA	93428
Pleasant Inn Motel	2101 Rambuouillet Road	Paso Robles	93446
Jonathan Martin	2103 BENSON AVE	CAMBRIA	93428
Coastal Country Retreat	2109 Laguna Negra Lane	Arroyo Grande	93420
2 Bedroom, 2 Bathroom Townhome	211 San Miguel	Avila Beach	93424
Eric & Cathy Zacher/Joseph Laing/Mee young Lee	211 San Miguel	Cambria	93428
Artist Retreat Nestled in the Woods	2110 Laguna Negra Lane	Cambria	93428
Mac Van Duzer Londonderry	2111 Laguna Negra Lane	Cambria	93428
Janet and Gerard Walbaum	2111 OXFORD AVE	CAMBRIA	93428
Dolores Herzog	2112 Laguna Negra Lane	Cambria	93428
Ralph and Heidi He	2116 WINDSOR BLVD	CAMBRIA	93428
Hampton Inn & Suites- Paso Robles	212 Alexa Court	Paso Robles	93446
Adolfo Cabello	2120 LOTHAR LN	TEMPLETON	93465
Tides Motel	2121 Price Street	Pismo Beach	93449
Mark & Elizabeth Lowerison	213 San Miguel	Cambria	93428
New Townhome in Avila Beach	213 San Miguel	Avila Beach	93424
Terry & Susanne Waite	213 San Miguel	Cambria	93428
Wonderful Ocean View Home	213 San Miguel	Cambria	93428
Summerwood Inn	2130 ARBOR RD	PASO ROBLES	93446
Treetop Cottage	2138 Olive Street	Paso Robles	93446
Best Western Royal Oak Hotel	214 Madonna Road	San Luis Obispo	93405
Big Views on Lodge Hill	214 San Miguel	Cambria	93428
Newly Renovated Avila Cottage	214 San Miguel	Avila Beach	93424
Toni Skibinski	214 San Miguel	Cambria	93428
Tranquility	214 San Miguel	Cambria	93428
Sheila Reiser-okun	2141 SHERWOOD	CAMBRIA	93428
Thomas T. Hare	2143 TULLY PL	CAMBRIA	93428

Business Name	Address	City	Zip
Ruth Gosting	215 LEIGHTON	CAMBRIA	93428
2 Bedroom Townhouse for 6	215 San Miguel	Avila Beach	93424
Clay Or Lucy Holland	215 San Miguel	Cambria	93428
Durbano Vacation Rental	215 San Miguel	Cambria	93428
Inviting 2 Story Home in Cambria Pines	215 San Miguel	Cambria	93428
Cayucos Beach House	2150 Pacific	Cayucos	93430
Judith Gordon	2155 Circle Dr	Cayucos	93430
Jennifer Schriber	2158 S WINDSOR BLVD	CAMBRIA	93428
Jerome Becker	2160 AVON AVE	CAMBRIA	93428
Michio or Takayo Miyamoto	2160 MCCABE	CAMBRIA	93428
Verna Ann Longwood	2164 CASS AVE	CAYUCOS	93430
Gary Menger	2165 EMMONS RD	CAMBRIA	93428
Tom Hamlin	2166 SHERWOOD	CAMBRIA	93428
Bill & Karen Cleveland	2167 Cienaga St.	Oceano	93445
Emily Campbell	217 Obispo	Cayucos	93430
New 2 Story Townhome	217 San Miguel	Avila Beach	93424
Seaview on Burton	217 San Miguel	Cambria	93428
Serenity Corner	217 San Miguel	Cambria	93428
You are Welcome at Wilcombe	217 San Miguel	Cambria	93428
Bill & Karen Cleveland	2171 Cienaga St.	Oceano	93445
Mac Van Duzer Blythe	2173 BLYTHE PL	CAMBRIA	93428
SummerWood Inn	2175 Arbor Road	Paso Robles	93446
Todd Or Karen Bria	2176 MARLBOROUGH	CAMBRIA	93428
W Kent Levis / Charlene J Levis	2180 BENSON AVE	CAMBRIA	93428
Earlene or Ernest Subias	2180 EMMONS	CAMBRIA	93428
Dolores Herzog	2183 SHERWOOD DR	CAMBRIA	93428
Avila Beach Townhome Sleeps 6	219 San Miguel	Avila Beach	93424
Gary Byrd	219 San Miguel	Cambria	93428
Oceanfront Treasure	219 San Miguel	Cambria	93428
Sea 'Scape	219 San Miguel	Cambria	93428
Enigma	2195 CORBETT CANYON RD	Arroyo Grande	93420
Travelodge	220 Beach Street	Morro Bay	93442
Barbara Kosanke	220 KENDAL	CAMBRIA	93428
PRW Vacations/Van Dame	220 Pacific St.	Paso Robles	93446
Cape Cod Style Home	2202 Pacific	Cayucos	93430
Morro Strand RV Park	221 Atascadero Road	Morro Bay	93442
Pine Stone Inn	221 WEYMOUTH ST	CAMBRIA	93428
Economy Inn	2218 Spring Street	Paso Robles	93446
Paul McGill	222 BRYAN PL	CAMBRIA	93428
Cass House Inn	222 N. Ocean Ave	Cayucos	93430
Be Relaxed & Comfortable in the Pines	223 San Miguel	Cambria	93428
Bruce Mumper	223 San Miguel	Cambria	93428
Modern Townhome for 6	223 San Miguel	Avila Beach	93424
The Pierce House	223 San Miguel	Cambria	93428
Branko Properties, LLC	2232 LANGTON ST	CAMBRIA	93428

Business Name	Address	City	Zip
The Whale Watcher	2233 MADISON ST	CAMBRIA	93428
Hester's Hideaway	2234 Pacific Ave.	Cayucos	93430
SeaCrest OceanFront Hotel	2241 Price Street	Pismo Beach	93449
Best Western Tradewinds	225 Beach Street	Morro Bay	93442
Bay View Inn	225 Harbor Street	Morro Bay	93442
Susan Grueneberg	225 HASTINGS	CAMBRIA	93428
Everything Needed for a Family Vacation	225 Pacific Ave	Cayucos	93430
New Townhome with Master Bath Jacuzzi	225 San Miguel	Avila Beach	93424
Susan & Robert McDonald Vacation Rental	225 San Miguel	Cambria	93428
Three Bedroom Lodge Hill Home	225 San Miguel	Cambria	93428
Weymouth House	225 San Miguel	Cambria	93428
Stenner Creek Ranch	2265 Stenner Creek Ranch	San Luis Obispo	93405
House of Another Thyme	227 Le Point St.	Arroyo Grande	93420
Holland Ranch Rentals	2275 CARPENTER CANYON RD	San Luis Obispo	93401
290 Degree Views	2285 Cass Avenue	Cayucos	93430
Michael Dobrotin	2296 RIDGE RIDER RD	BRADLEY	93426
Blue Seal Inn	230 Dolliver	Pismo Beach	93449
Quality Inn - Pismo Beach	230 Five Cities Dr.	Pismo Beach	93449
Pismo Beach Hotel, The	230 Pomeroy Avenue	Pismo Beach	93449
Monika J. Tanhill	2300 PINERIDGE DR	CAMBRIA	93428
Eric J. Morley	2310 CLAASSEN RANCH LN	PASO ROBLES	93446
Mee Young Lee	2310 PIERCE AVE	CAMBRIA	93428
IVDC, LLC	233,235,237 SAN MIGUEL	AVILA BEACH	93424
Linda A. Bell	235 San Miguel	Cambria	93428
Michael O'Sullivan	235 San Miguel	Cambria	93428
Old Style Avila Charm	235 San Miguel	Avila Beach	93424
Robin Anderson	235 San Miguel	Cambria	93428
Maggie Or Johnathon Christie	238 PACIFIC A & B	CAYUCOS	93430
Renovated, Vibrant & Lovely Home	24 16th Street	Cayucos	93430
Sea Garden Motel	240 Stimson	Pismo Beach	93449
Terry & Susanne Waite	2401 WILCOMBE DR	CAMBRIA	93428
Kenneth Wrye	2404 BRADFORD PL	CAMBRIA	93428
Clay Or Lucy Holland	2406 MADISON	CAMBRIA	93428
Pismo Lighthouse Suites	2411 Price Street	Pismo Beach	93449
Kathy & Randy Bonner	2428 WILCOMBE	CAMBRIA	93428
Burtt/Sowle Trustees	2431 SHERWOOD DR	CAMBRIA	93428
The Pierce House	2442 PIERCE AVE	CAMBRIA,	93428
Judy Creek	2450 SYMPHONY OAKS DR	TEMPLETON	
Holiday Inn Express - Paso Robles	2455 Riverside Avenue	Paso Robles	93446
Weymouth House	247 WEYMOUTH	CAMBRIA	93428
Michael O'Sullivan	2471 BANBURY RD	CAMBRIA	93428
Olallieberry Inn, Llc	2476 MAIN ST	CAMBRIA	93428
Estero Bay Motel	25 South Ocean Avenue	Cayucos	93430
Avila Hot Springs	250 Avila Drive	Avila Beach	93405
Ocean Breeze Inn at Pismo Beach	250 Main Street	Pismo Beach	93449

Business Name	Address	City	Zip
Best Western Plus San Marcos Inn	250 Pacific Street	Morro Bay	93442
Cavalier Inn & Restaurant	250 SAN SIMEON AVE	SAN SIMEON	93452
Wine Country RV Resort	2500 Airport Road	Paso Robles	93446
Kimberly Maston	2500 EMERSON RD	CAMBRIA	93428
Martin Barman	2505 VICTORIA WAY	CAMBRIA	93428
Lovely Ocean and Forest View Home	251 Avila Drive	Cambria	93428
David M. Brown	251 DORSET AVE	CAMBRIA	93428
Anne Laddon	251 KENDALL LN	CAMBRIA	93428
Richard & Samantha Maybury	251 KERWIN ST	CAMBRIA	93428
Melvin & Patricia J. Dorin	2510 BANBURY RD	CAMBRIA	93428
Ricardo & Laura Silberman	2517 PIERCE AVE	CAMBRIA	93428
Jennifer and Jeff Nay	2519 LEONA DR	CAMBRIA	93428
Steadfast Point	252 Avila Drive	Cambria	93428
Laird Vacation Rental	252 N. Ocean Ave.	Cayucos	93430
Robert & Nancy Whalen	2523 Wilcombe Road	Cambria	93428
The Haymakers Inn	2525 ADOBE RD	PASO ROBLES	93446
Olallieberry Inn Bed & Breakfast	253 Avila Drive	Cambria	93428
Emerson Tree House	2537 Emerson	Cambria	93428
Aida Silva	2537 SHORELINE RD	BRADLEY	93426
Villa Valdemosa Bed & Breakfast Inn	2552 Old Grove Lane	Paso Robles	93446
Pickford House	2555 Macleod Way	Cambria	93428
Best Western PLUS Shore Cliff Lodge	2555 Price Street	Pismo Beach	93449
Inn at Avila Beach	256 Front Street	Avila Beach	93424
Robert & Nancy Whalen	2561 Madison	Cambria	93428
Gene Blocher	2561 MADISON ST	CAMBRIA	93428
Marine Terrace 5 Bedroom Home	2561 Victoria Way	Cambria	93428
Eric & Cherie Jensen	2567 SHERWOOD DR	CAMBRIA	93428
Marine Terrace Rustic Ocean Front	2567 Sherwood Dr.	Cambria	93428
Anne Laddon	257 A,B,C First St.	Cambria	93428
Beach Retreat in Avila Beach (Unit A, B & C)	257 A,B,C First St.	Avila Beach	93424
David M. Brown	257 A,B,C First St.	Cambria	93428
Serene Zen Retreat	257 A,B,C First St.	Cambria	93428
Merry Weather Retreat	257 Front Street	Cambria	93428
Pines with a View	258 B First St.	Cambria	93428
Roderick & Kathy Smith	258 Front Street	Cambria	93428
Elevation	258 Worchester	Cambria	93428
Acorn Hideaway	2581 Emerson Rd	Cambria	93428
Stanley Don Connors	2581 SHORELINE RD	BRADLEY	93426
Ab-Fab	2587 Romney Drive	Cambria	93428
Casey & Timothy Hosman	2588 Tipton	Cambria	93428
Moonshell	259 B First St.	Cambria	93428
Dreamcatcher	259 Front Street	Cambria	93428
Ammy Naff	2592 Wilcombe	Cambria	93428
Charming 1 edroom 1 bath, Close to Downtown	26 St. Mary	Cayucos	93430

Business Name	Address	City	Zip
Richard & Samantha Maybury	260 B First St.	Cambria	93428
Ascot Suites	260 Morro Bay Blvd.	Morro Bay	93442
Beautiful Home with Open Floor Plan	260 Worcester	Cambria	93428
Rodney Wadsworth	2600 CAPTAINS WALK	BRADLEY	93426
Rod & Andrea Olguin	2602 SHORELINE RD	BRADLEY	93426
Honey Oak House	2602 Templeton Road	Templeton	93456
Berge J. Badalian	2605 Ocean Avenue	Cayucos	93430
R. Michael & Debbie Contro	2607 SHORELINE RD	BRADLEY	93426
Roomy & Comfortable Single Story Home	261 Chatham	Cambria	93428
Kyle or Judy Divine	2612 CAPTAINS WALK	BRADLEY	93426
Cindy Sugimoto	2612 STUDIO DR	CAYUCOS	93430
La Quinta Inn & Suites	2615 Buena Vista Drive	Paso Robles	93446
Creekside Inn	2618 Main Street	Cambria	93428
Hot Tub & Decks	2620 Merlyn Ave.	Cambria	93428
Holland Inn	2630 Main Street	Morro Bay	93442
William & Barbara Hughes	2635 PINE RIDGE RD	BRADLEY	93426
Largest Ocean View Home	264 Bowie Dr	Los Osos	93402
5 Bedroom Oceanfront	2640 Studio Drive	Cayucos	93430
James Pahler	2641 CROWS NEST LOOP	BRADLEY	93426
Sandi & George Derpic	2641 PINE RIDGE RD	BRADLEY	93426
Jan Dennehy	2644 PINE RIDGE RD	BRADLEY	93426
Crow's Nest	2650 Marlborough	Cambria	93428
Best Western PLUS Shelter Cove Lodge	2651 Price Street	Pismo Beach	93449
The Casitas of Arroyo Grande	2655 LOPEZ DR	Arroyo Grande	93420
Enchanted Gardens	2656 Lopez Dr	Cambria	93428
Robert & Amy Lammert	2657 Lopez Dr	Cambria	93428
Barbara Kosanke	2658 Lopez Dr	Cambria	93428
Kurt & Cary Mason	2659 PINE RIDGE RD	BRADLEY	93426
Michael Fahim	2660 PINE RIDGE RD	BRADLEY	93426
Cambria Palms Motel	2662 Main St	Cambria	93428
Charmer on the Beachfront	2662 Studio	Cayucos	93430
Dennis & Alice Berry	2669 Orville Ave	Cayucos	93430
Enclosed Patio with Great Ocean Views	267 Stafford St.	Cambria	93428
Sweet & Simple 1 Bedroom Duplex	2670 Studio Drive	Cayucos	93430
Rustic Oceanfront Home	2675 Sherwood Dr	Cambria	93428
Bringyourbeachtoys	2689 CIENAGA ST	OCEANO	93445
Classic Cayucos Beach Home	2692 Studio Drive	Cayucos	93430
Jill Ochinero	2693 OCEAN BLVD	CAYUCOS	93430
One Level Rustic Beach House	2698 Sherwood Dr.	Cambria	93428
Beautiful Home with Lovely Views	27 Bakersfield	Cayucos	93430
Victorian Cottage by the Sea	270 Chatham	Cambria	93428
Lighthouse View Estates	270 Via Piedras Blancas	San Simeon	93452
Travelodge - Paso Robles	2701 Spring Street	Paso Robles	93446
Spyglass Inn	2705 Spyglass Drive	Pismo Beach	93449
Villa Cantina	2709 LOOKOUT LOOP	BRADLEY	93426

Business Name	Address	City	Zip
Private Beach Access, Single Story Home	2712 Studio Dr	Cayucos	93430
Ranck's Roost	2721 LOOKOUT LOOP	BRADLEY	93426
Mark McCoy/Jill Butler	2723 Santa Barbara	Cayucos	93430
James R. Wilkins	2725 GENESEO RD	PASO ROBLES	
Dolphin Bay Resort and Spa	2727 Shell Beach Road	Pismo Beach	93449
Fog's End	2735 MAIN ST	CAMBRIA	93428
Michael Deldin	2736 Pecho Valley Road	Los Osos	93402
Winter Johnson	2745 Evensong Way	Cambria	93428
Budget Inn	2745 Spring Street	Paso Robles	93446
What a Great Gathering!	2746 Santa Barbara	Cayucos	93430
Townhouse Motel	2749 Spring Street	Paso Robles	93446
Bristol by the Sea	275 Bristol Street	Cambria	93428
Conover Lane Properties	275 CONOVER LN	TEMPLETON	93465
Two Bedroom Moonstone Beach House	275 Stafford	Cambria	93428
Avila Healing Hideaway	2750 DAVIS CANYON RD	San Luis Obispo	93405
Harry & Sandra Redmond	2755 HOLDEN PL	CAMBRIA	93428
Bill Matthes	2755 Holden Place	Cambria	93428
The Cliffs Resort	2757 Shell Beach Road	Shell Beach	93449
Connie Crowley	2757 Windsor	Cambria	93428
Windows & Views	2764 Studio Dr.	Cayucos	93430
Alan / Retagene Hanslik	2770 Burton Circle	Cambria	93428
Unique Beach House	2774 Studio Dr.	Cayucos	93430
Mike Perry	2775 Santa Barabra Avenue	Cayucos	93430
Heather Miller	2775 SANTA BARBARA AVE	CAYUCOS	93430
Mcdermott House	2792 Studio Dr.	Cayucos	93430
John B. Kalender	2794 Orville	Cayucos	93430
GJ Ventures, LLC	2794 Santa Barbara	Cayucos	93430
Wendy Smith	2795 Studio Dr.	Cayucos	93430
Cayucos 3 Bedroom Townhome	28 S Ocean Ave	Cayucos	93430
Luxury 1 Bedroom, 1 Bathroom Apartment	28 San Miguel	Avila Beach	93424
Across the Street From the Beach	280 N. Ocean Ave.	Cayucos	93430
Luxury Ocean View Sleeps 14+	280 Travis Dr.	Los Osos	93402
Tiber Canyon Ranch	280 W ORMONDE RD	San Luis Obispo	93401
Edgewater Inn & Suites	280 Wadsworth Ave.	Pismo Beach	93449
Patricia Wood	2815 STUDIO DR	CAYUCOS	93430
Reid Lundstrom	2815 Studio Dr.	Cayucos	93430
Margate Suite	2828 MARGATE	CAMBRIA	93428
Pacific Cottage Motel	2830 Alder Avenue	Morro Bay	93442
Robert & Anthony Krause	284 Pacific	Cayucos	93430
Kevin Or Sharyn Miller	2850 Burton Circle	Cambria	93428
Burtness Properties	2856 LANDS END RD	OAK SHORES	93426
Steve & Michelle Cardella	286 WEYMOUTH ST	CAMBRIA	93428
Mermaid's Tale	286 Weymouth Street	Cambria	93428
Patricia Ouellet	2860 LANDS END	BRADLEY	93446
Beachfront 3 Bedroom, 3 Bathroom Home	2874 Studio Dr.	Cayucos	93430

Business Name	Address	City	Zip
Comus House at Denner Vineyards	2885 Willow Creek Road	Paso Robles	93446
Oceanfront Home with Grassy Yard & Stairs to the Beach	2886 Studio Dr	Cayucos	93430
Bob & Patricia Tharp	2895 STUDIO DR	CAYUCOS	93430
Across from Cayucos Beach	2895 Studio Dr.	Cayucos	93430
Near Beach Bungalow	29 20th Street	Cayucos	93430
Donald J. Kaplan	29 San Miguel	Cambria	93428
Morro Shores Inn & Suites	290 Atascadero Road	Morro Bay	93442
Cambria Pines Lodge	2905 Burton Drive	Cambria	93428
Vintage Cayucos Beach House	2908 Studio Dr	Cayucos	93430
McCabe Rental	2912 Gilead Lane	Paso Robles	93446
Stephen J.M. Morris & John W. Russell	292 Orlando	Cambria	93428
Seven Sisters Vacation Rentals	2920 NIGHT HAWK WAY	AVILA BEACH	93424
Solitude 2	2929 CRESTON RIDGE LN	PASO ROBLES	93446
Karen Rodriguez	295 Orlando	Cambria	93428
James Mase	295 Plymouth	Cambria	93444
Ocean & Mountain View Villa	295 Via Piedras Blancas	San Simeon	93452
2 Blocks to the Beach	2959 Orville	Cayucos	93430
John & Susan Farrell	2973 Burton Circle	Cambria	93428
Dancing Deer Farm	2975 VINEYARD DR	TEMPLETON	93465
Motel 6 Morro Bay	298 Atascadero Road	Morro Bay	93442
Serge & Wendy Albert	299 CAYUCOS DR C	CAYUCOS	93430
J. Patrick House	2990 Burton Drive	Cambria	93428
All-Encompassing Views	30 5th St.	Cayucos	93438
Heavenly Ocean View	30 San Miguel	Cambria	93428
Carriage House on Horse Ranch in Edna Valley/Greengate Ranch	300 Greengate Road	San Luis Obispo	93401
Vina Robles Guesthouse	3000 PLEASANT RD	SAN MIGUEL	93451
The Oaks Hotel	3000 Riverside Drive	Paso Robles	93446
Dorthy Starr / Gary Starr & Anita Starr	3001 Ocean Ave	Cayucos	93430
Jenifer Rhynes	3001 OCEAN BLVD	CAYUCOS	93430
Victoria's Last Resort	3003 Ardath Drive	Cambria	93428
Spence / Debbie Grafft	301 Bakersfield Avenue	Cayucos	93430
Nice 3 Bedroom House Close to Beach	3017 Ocean	Cayucos	93430
Avila Beach Apartments & Vacation Rentals	302 2nd Street	Avila Beach	93424
Pacific Breeze	303 Jean St.	Cambria	93428
Tony Adamo	303 Wallbridge Dr.	Cambria	93428
Beautiful Tree Top Panorama	304 2nd Street	Cambria	93428
Donna Proctor Trustee	304 Bristol Street	Cambria	93428
Ernest / Kathryn Rossi	304 Grove St.	Los Osos	93402
Tolle House	305 14th St.	Paso Robles	93446
Bella Casa	305 16th St.	Paso Robles	93446
Traci Wilson	305 1ST STREET	AVILA BEACH	93424
Ricardo & Laura Silberman	305 2nd Street	Cambria	93428
Casa La Mar	305 Fallbrook St	Cambria	93428

Business Name	Address	City	Zip
The Boat House	305 Hacienda Drive	Cayucos	93430
Marina Street Inn B&B	305 Marina Street	Morro Bay	93442
Fully Equipped, Beautiful Home	305 Pembrook Drive	Cambria	93428
Avila Beach Apartments & Vacation Rentals	306 2ND ST	AVILA BEACH	93424
Wedgewood Beach House	306 Wedgewood	Cambria	93428
Designed Specifically for Family Gatherings	3060 Mills	Cambria	93428
The New Wilson Trust	3074 S EL POMAR RD	TEMPLETON	93465
Sarah Kelly	308 HACIENDA DR	CAYUCOS	93430
Melvin & Patricia J. Dorin	31 San Miguel	Cambria	93428
Robert Campbell	310 Cambridge Street	Cambria	93428
Choose A Beach Activity/Steps to the Sand	310 Sandpiper Lane	Oceano	93445
Surf, Kayak, Beachcomb & More/Surfbeach&Sand	310 Surf	Oceano	93445
Treasures Vacation Rentals	310 YORK AVE	OCEANO	93445
Magnificent Oceanfront	3106 Studio	Cayucos	93430
Glenn & Sharon Adams	3109 E BEACH CIR	BRADLEY	93426
Feet to the Sand	311 Sandpiper Lane	Oceano	93445
W. Bryant Migliaccio	3111 South Ocean	Cayucos	93430
Garden Cottage Retreat	3113 Rogers Dr.	Cambria	93428
East Beach LLC	3124 E BEACH CIR	BRADLEY	93426
Keene RV Mobile Home Park	3126 Spring Street	Paso Robles	93446
Thom / Deborah Hume	3135 Studio Drive	Cayucos	93430
Ronald & Dolores Magness	315 Bristol	Cambria	93428
Hoffberg	315 BRISTOL ST	CAMBRIA	93428
50 Feet to sand	315 UTAH	OCEANO	93445
Jerry Bradley	3165 Ardath	Cambria	93428
John M. Wilson	317 1ST STREET	AVILA BEACH	93424
Pilot House	317 Orlando St	Cambria	93428
Perfectly Located Close to Downtown Cayucos & Morro Bay	3180 Studio Dr	Cayucos	93430
Chris Jacobs	3183 Studio Dr.	Cayucos	93430
Linda Schwartz / Julie Gertler	319 York	Oceano	93445
Dixi L. Henson Exemption Trust	319 YORK AVE	OCEANO	93445
Great Family Home	3191 Ocean Blvd.	Cayucos	93430
John Diener	32 So. Ocean Ave	Cayucos	93430
Tigg G. Morales	320 Drake St.	Cambria	93428
Birds of a Feather	320 Juanita	Oceano	93445
Marine Terrace Two Bedroom Home	320 Orlando	Cambria	93428
Cool House A Cool View	320 Wellington Drive	Cambria	93428
Allan Family L.P.	321 Juanita Ave.	Oceano	93445
Awesome House, Awesome View	321 Wellington Drive	Cambria	93428
Popular Beachfront	3212 Studio	Cayucos	93430
Art Crispino	322 Atwell	Cambria	93428
Charming 4 Bedroom	3223 S Ocean	Cayucos	93430
Gaze Out at the Views, Sunsets, & Wildlife	3224 Studio Drive	Cayucos	93430

Business Name	Address	City	Zip
Hillside Home	3229 Shearer	Cayucos	93430
Steps to the Waves and Sleeps 12!	324 Sandpiper	Oceano	93445
Comfortable 3 Bedroom Home	324 Utah Ave	Oceano	93445
Bette Wells	324 YORK AVE	OCEANO	93445
Morro Bay Vacation Stays	3240 Main St.	Morro Bay	93442
Bruce & Sandra Kessler	325 DORSET ST	CAMBRIA	93428
Kevin & Dannelle Blain	325 DORSET ST	CAMBRIA	93428
Paso Robles Vacation Rentals	325 HILLTOP DR	PASO ROBLES	93446
Norma J Eisenhauer	3250 Pickwick Ln	Cambria	93428
Beach House on Moonstone	3254 Avila Beach Drive	Cambria	93428
Beachfront Cottage for 6	3254 Avila Beach Drive	Cambria	93428
Jarlath or Diane Oley	3254 Avila Beach Drive	Cambria	93428
Natalie Rabiner	3254 Avila Beach Drive	Cambria	93428
Robert Hoeck or Meryl Ann Lagotta	3254 Avila Beach Drive	Cambria	93428
San Luis Bay Inn	3254 Avila Beach Drive	Avila Beach	93424
Strawberry Canyon Charmer	3254 Avila Beach Drive	Cambria	93428
Rebecca Rollins	3255 Avila Beach Dr.	Cambria	93428
Snug Harbor	3256 Avila Beach Dr.	Cambria	93428
Todd M. Arndt And Sandra L. Arndt	3257 Avila Beach Dr.	Cambria	93428
Mondo Cellars	3260 Nacimiento Lake Drive	Paso Robles	93446
Bee House	3269 Shearer Avenue	Cayucos	93430
Denise Novell	328 Mccarthy	Oceano	93445
Berardo Winery Vacation Rentals - Inn	3280 Township Road	Paso Robles	93446
Arroyo Grande Motel	329 Traffic Way	Arroyo Grande	93420
Phil / Esther Keosababian	3293 Ocean Blvd	Cayucos	93430
Oceanfront Home with Stairs to the Beach	3298 Studio	Cayucos	93430
Spacious & Charming Home	33 14th St	Cayucos	93430
Nicely Furnished Home 1/2 Block from the Beach	33 23rd Street	Cayucos	93430
New Home with Lovely Ocean Views	330 Jean	Cambria	93428
Coastal Vacation Rentals	330 Main Street	Pismo Beach	93449
Beachfront Duplex	3300 Studio Drive	Cayucos	93430
Nelson R. Bernal	3307 Studio Drive	Cayucos	93430
Private Home Located 1/2 Block from the Beach	332 York	Oceano	93445
Terry Carter	333 Juanita Ave	Oceano	93445
Embassy Suites Hotel	333 Madonna Road	San Luis Obispo	93405
Cayucos Beach Inn	333 S. Ocean Ave.	Cayucos	93430
Blue Sea Castle	334 Castle	Cambria	93428
Tom/Lynn Walsh	334 Kerwin St.	Cambria	93428
Clark Family Vineyard	3343 VINE HILL LN	PASO ROBLES	93446
Cynthia Van Hoff	3361 Studio Dr.	Cayucos	93430
Jennifer & Randall McNamee	3389 Ocean Blvd.	Cayucos	93430
Dog Friendly in Park Hill	340 Dorset	Cambria	93428
Luxury in Avila Beach	340 Ocean Oaks Lane	Avila Beach	93424

Business Name	Address	City	Zip
Kearney Rentals LLC	3407 Ocean	Cayucos	93430
Cape Cod Style Condo	341 First St	Avila Beach	93424
Seaclusion	341 Ocean Oaks Lane	Cambria	93428
Large Family Retreat Near Beach	3413 Shearer	Cayucos	93430
Modern Eagle's Nest	342 First St	Cambria	93428
Comfort and Charm	342 Ocean Oaks Lane	Cambria	93428
George & Shan Watters	343 First St	Cambria	93428
Oceanfront, 2 Story Home	3436 Studio Dr	Cayucos	93430
Paul G. Stoltz	3436 STUDIO DR	CAYUCOS	93430
Francis / Susan Lojacono	3444 Studio Drive	Cayucos	93430
Kenneth D. Riener	3448 Studio Drive	Cayucos	93430
Chris Disalvo	345 Atwell St.	Cambria	93428
Fabulous Marine Terrace Home	345 Lampton	Cambria	93428
Avenue Inn	345 Marsh Street	San Luis Obispo	93401
Fresh Enterprises	3455 Studio Drive	Cayucos	93430
Enigma	3455 Vista Del Ciudad	San Luis Obispo	93401
Recently Remodeled 2 Bedroom Home	3476 Shearer	Cayucos	93430
David Thurman	3478 Davies	Cayucos	93430
Bob Kasper	3485 Gilbert Avenue	Cayucos	93430
Bonnie L Spencer	349 N OCEAN A-8	CAYUCOS	93430
Angelina Boaz Trust	349 N OCEAN B-1	CAYUCOS	93430
North Ocean I, LLC	349 N OCEAN AVE 15-A	CAYUCOS	93430
Laura Morrison	349 N OCEAN AVE A-16	CAYUCOS	93430
Marilyn & Robert Sampica	349 N OCEAN AVE A-21	CAYUCOS	93430
Pat Danna / Carole Shafe	349 N OCEAN AVE A20	CAYUCOS	93430
Richard / Catherine / Hunter Russell	349 N OCEAN AVE A22	CAYUCOS	93430
Marlene Johnson	349 N OCEAN AVE A3	CAYUCOS	93430
Larry A King	349 N OCEAN AVE A9	CAYUCOS	93430
Sondra Matesky	349 N OCEAN AVE B3	CAYUCOS	93430
Sondra Matesky	349 N OCEAN AVE B4	CAYUCOS	93430
Randy or Karen Redfield	349 N OCEAN AVE B5	CAYUCOS	93430
Patricia Date	349 N OCEAN AVE B7	CAYUCOS	93430
Lisa Monaco	3493 STUDIO DR	CAYUCOS	93430
Romanza	350 Kerwin	Cambria	93428
Neil Gonnella	350 Plymouth St	Cambria	93428
Access to the Ranch & Water	351 Wedgewood	Cambria	93428
Oakdale Ranch	3510 OAKDALE RD	PASO ROBLES	93446
Hustace Trust	3519 STUDIO DR	CAYUCOS	93430
David Hardee	3525 ADELAIDA RD	PASO ROBLES	93446
Rodney Cegelski	353 1ST STREET	AVILA BEACH	93424
Embrace Your Surroundings In This Tri-Level Home	353 Huntington	Cambria	93428
Mike And Wilma Roller	353 MCCARTHY #1&2	OCEANO	93445
Roomy, Single Story House	3530 Studio Dr	Cayucos	93430
Ocean Sky Property Management	354 MCCARTHY AVE	OCEANO	93445

Business Name	Address	City	Zip
Croad Inn	3540 Vinedo Robles Lane	Paso Robles	93446
Paso Robles Wine Country Inn	3548 Spring Street	Paso Robles	93446
Philip & Linda Martin	3551 DAVIES AVE	CAYUCOS	93430
Avila Grocery Sleeps 6	356 Front St	Avila Beach	93424
Romantic, Waterfront Getaway for Two on Morro Bay/Green Cottage on Morro Bay	356 Mitchell Dr.	Los Osos	93402
Sea Dunes	356-360 Pier Ave.	Oceano	93445
Great Home Across from the Beach	3561 Studio Drive	Cayucos	93430
Stargazer	357 Front St	Cambria	93428
Joseph M. Schacherer Jr.	357 McCarthy Avenue	Oceano	93445
Flawless Ocean Views	358 Front St	Cambria	93428
Perfect Spot to Experience Living on the Beach	359 First St	Avila Beach	93424
Rancho La Campana	3590 OAKDALE RD	PASO ROBLES	93446
Bob & Margo Gould	36 N. Ocean Avenue	Cayucos	93430
Conventional Oceanview Home	36 Oceanfront Lane	Cayucos	93430
Budget Beach House	360 Cayucos Drive	Cayucos	93430
Close to Tide Pools & Ranch Trails	360 Fallbrook	Cambria	93428
Tim & Bev Mckeehan	360 First St	Cambria	93428
Jean Street House	360 Jean	Cambria	93428
4 Bedroom Cayucos Home	360 North Ocean	Cayucos	93430
Dita Resella	3600 Studio Dr.	Cayucos	93430
Artist Cottage	361 First St	Cambria	93428
Cape Cod Charm by the Sea	362 Plymouth	Cambria	93428
3620 Studio Drive	3620 STUDIO DR	CAYUCOS	93430
Beachfront House for 6	3620 Studio Drive	Cayucos	93430
Chelsea Pointe	365 Chelsea	Cambria	93428
Ryan Home	365 Hilltop Drive	Paso Robles	93446
View Piedras Blancas Lighthouse	365 Leighton	Cambria	93428
Bella Collina	3650 Mustang Springs Road	Paso Robles	93446
John Or Loan Rabinowitz	366 Kerwin	Cambria	93428
Charles & Carmen Peterson	366 KERWIN ST	CAMBRIA	93428
Shell-Abration	369 Mccarthy	Oceano	93445
John F. Swift	3698 Clark Valley Rd.	Los Osos	93402
Big Red House	370 Chelsea Lane	Cambria	93428
Park Hill 3 Bedroom Home	370 Huntington Rd.	Cambria	93428
Susan Gonzales	370 Wedgewood	Cambria	93428
Valentina Inn & Villas	371 Pismo Street	Pismo Beach	93449
Summerhill Ranch	3710 PEACHY CANYON RD	PASO ROBLES	93446
Ocean Song	373 Kerwin	Cambria	93428
Kevin & Judith Cadigan	374 North Court	Los Osos	93402
Betty J Malone	375 Ivar	Cambria	93428
Wild Coyote Winery Bed Breakfast/Vacation Rental	3775 Adelaida Road	Paso Robles	93446
Great Beach House!	38 7th St.	Cayucos	93430

Business Name	Address	City	Zip
June Vineyards	380 & 390 SAN MARCOS RD	PASO ROBLES	93446
Casa Encantada	380 CALLE DEL SOL	NIPOMO	93444
Robert Naste	380 Castle St.	Cambria	93428
Elton Hankins	380 Drake St.	Cambria	93428
Fiddlers Green	380 Fallbrook St.	Cambria	93428
Dolphin Dreams	382 Atwell	Cambria	93428
Eliana Interior Design	39 12th St.	Cayucos	93430
Ocean Palms Motel	390 Ocean View Ave	Pismo Beach	93449
Newer Multi-level Triplex	390 Park A	Cayucos	93430
Newer Multi-level Triplex	390 Park C	Cayucos	93430
The Victorian Rose Garden B&B	391 D Street	Cayucos	93430
Romantic Ranch Walks	393 Harvey	Cambria	93428
Beach Chalet	394 Plymouth	Cambria	93428
Happy Hill 3 Bedroom Home	394 Warwick St.	Cambria	93428
All Views	395 Cambridge	Cambria	93428
Cindy & Bob Rucker	395 Crestmont Dr.	San Luis Obispo	93401
Castle by the Sea	397 Castle Street	Cambria	93428
Astounding Ocean Views	398 Lancaster	Cambria	93428
Mariner's Retreat	399 Lancaster	Cambria	93428
Large Home Across the Street from the Beach	399 Pacific	Cayucos	93430
The Dolphin Inn	399 S OCEAN AVE	CAYUCOS	93430
Short Distance from Downtown & Moonstone Beach	399 Wellington	Cambria	93428
Eye-Catching Views	40 Oceanfront Lane	Cayucos	93430
Close to Shamel Park & the Beach	400 Norfolk	Cambria	93428
Pete Or Vivien Vander Poel	400 Pacific	Cayucos	93430
Spectacular Ocean Viewing Deck	401 Hastings St.	Cambria	93428
Marine Home Located a Short Distance to Moonstone Beach	401 Weymouth	Cambria	93428
Hummingbird House	4015 ALMOND DR	TEMPLETON	93465
Farmhouse on Oakdale	4020 OAKDALE RD	PASO ROBLES	93446
The Burton Inn	4022 BURTON DR	CAMBRIA	93428
San Luis Inn & Suites	404 Santa Rosa St.	San Luis Obispo	93405
Mary & Robert Pope	405 Dorset	Cambria	93428
The Squibb House	4063 BURTON DR	CAMBRIA	93428
Quercus Acorn Cottage	407 19th St.	Paso Robles	93446
Evensong	407 WEYMOUTH ST	CAMBRIA	93428
Hodges & Dunlap	41 6TH ST	CAYUCOS	93430
Judy or Doug Boyer	410 Chaney	Cayucos	93430
Robert Sansom	410 LANCASTER ST	CAMBRIA	93428
Eagle's Nest	410 Norfolk	Cambria	93428
Four Story Home in Coveted Park Hill Area	411 Bristol	Cambria	93428
Cambridge House	411 Cambridge	Cambria	93428
Gary & Laurie Motil	413 St. Mary	Cayucos	93430

Business Name	Address	City	Zip
Creston Road House	4141 CRESTON RD	PASO ROBLES	93446
Pirate's Cove	415 Huntington	Cambria	93428
Park Hill Studio	419 Bristol	Cambria	93428
Seaside Motel	42 Ocean Avenue	Cayucos	93430
Dancing Horse Ranch and Retreat	4201 Lake Nacimiento Road	Paso Robles	93446
Vintage Ranch	4210 OAK FLAT RD	PASO ROBLES	93446
Calipaso Winery - Villa Toscana	4230 Buena Vista Drive	Paso Robles	93446
Carolyn Davis	425 PACIFIC	CAYUCOS	93430
Farmhouse Motel	425 Spring Street	Paso Robles	93446
Sunrise Hill	4251 RANCHITA VISTA WAY	SAN MIGUEL	93451
Park Hill Pinnacle	427 Hastings	Cambria	93428
Gary Kozuki	427 HASTINGS ST	CAMBRIA	93428
Wytmar Farming, LLC	4270 RANCHITA CANYON RD	SAN MIGUEL	93451
Black Mountain RV Park and Campground	4293 Calf Canyon Hwy	Creston	93432
Daniel Carter	43 5th Street	Cayucos	93430
Carol & Matthew Halsey	430 ORLANDO	CAMBRIA	93428
Orlando Magic	430 Orlando	Cambria	93728
Bridge Street Inn	4314 BRIDGE ST	CAMBRIA	93428
Carriage Vineyards Llc	4337 S EL POMAR	TEMPLETON	93465
Maxwell Anthony Pacific Incorporated	44 16TH ST	CAYUCOS	93430
Forrest & Frances Martin	44 24th St.	Cayucos	93430
Beach House	440 Cambridge St.	Cambria	93428
Small Yet Well Equipped	444 Pier #107	Oceano	93445
Pacific Plaza Hotel & Resort	444 Pier Avenue	Oceano	93445
Condo Close to Oceano Dunes	444 Pier Avenue Unit 111	Oceano	93445
Richard & Barbara West	444 Warwick	Cambria	93428
Coastal Escapes, Inc. (Cayucos)	445 S OCEAN AVE	CAYUCOS	93430
Beachfront House for 8	447 Lucerne	Cayucos	93430
Jack W. Ahart	448 HASTINGS ST	CAMBRIA	93619
Lee A Hoover	448 HASTINGS ST	CAMBRIA	93428
A Step Away	448 Plymouth	Cambria	93428
Jeane Craven	448 Wellington Drive	Cambria	93428
Oak Flat Retreat	4485 OAK FLAT RD	PASO ROBLES	93446
Hidden Hills Bed & Breakfast	4490 S EL POMAR	TEMPLETON	93465
Wayne & Karen Shimizu	45 19th Street	Cayucos	93430
Hope's Happy Home	45 9th St.	Cayucos	93430
Phyllis Coring	451 Emmons	Cambria	93428
Park Hill White Water Views	454 Pembrook	Cambria	93428
Beruli Vineyards	4550 DEL MAR LN	PASO ROBLES	93446
Howling Dog Ent	46 19TH ST	CAYUCOS	93430
Comfortable & Roomy 2-Story House	460 St Mary Ave	Cayucos	93430
Paul & Suzanne Ware	4615 PREFUMO CANYON RD	San Lus Obispo	93405
Lloyd & Renee Greif	4621 Windsor Blvd.	Cambria	93428
Casa Azul	464 Front St.	Avila Beach	93424
Adams Vacation Rental	464 Stuart Ave.	Cayucos	93430

Business Name	Address	City	Zip
Seaclift Cove	4640 Windsor	Cambria	93428
Lodge Hill 4 Bedroom Home	465 Front St.	Cambria	93428
Jordan Rental	466 Front St.	Cambria	93428
Winemakers Porch Bed & Breakfast at Frances James Vineyard	4665 Linne Road	Paso Robles	93446
Rock Basin Vineyards & Guest Houses	4670 LAS PILITAS RD	SANTA MARGARITA	93453
Rock Basin Vineyards & Guest Homes	4680 LAS PILITAS RD	SANTA MARGARITA	93453
Rinconada Dairy Farm Stay	4680 W POZO RD	SANTA MARGARITA	93453
Nautical Themed House	47 21st Street	Cayucos	93430
Coppin's Cove	47 Ash	Cayucos	93430
Toni Legras	472 S OCEAN AVE	CAYUCOS	93430
Near Beach with Sun Room	472 S. Ocean Ave.	Cayucos	93430
Amelia's Loft	4720 Wing Way	Paso Robles	93446
A+ Beachfront Home	474 Pacific	Cayucos	93430
Frances Fidler	475 Worcester	Cambria	93428
Seaclift Estate	4754 Windsor Boulevard	Cambria	93428
Windsor Cove	4757 Windsor Blvd	Cambria	93428
Serenity	476 Bristol St.	Cambria	93428
Mitsuno and Ken Baurmeister	48 15th Street	Cayucos	93430
See Lyon Beach Rentals	48 S. Ocean	Cayucos	93430
Newly Remodeled Seaclift Estate	4812 Windsor Blvd	Cambria	93428
Debbie Carolan	484 NORFOLK ST	CAMBRIA	93428
Russ Spain	484 Norfolk Street	Cambria	93428
Oceanfront with Hot Tub	4849 Windsor Blvd	Cambria	93428
Avila Beach Management, LLC	488 FRONT ST	AVILA BEACH	93424
Cambridge View	490 Cambridge	Cambria	93428
Beach Walker Inn & Suites	490 Dolliver	Pismo Beach	93449
Ray Or Jean Thomas	491 St Mary	Cayucos	93430
Destiny	492 Croyden	Cambria	93428
Hummingbird House	492 Dorset	Cambria	93428
Three Bedroom Seaclift Estate	4920 Windsor Blvd	Cambria	93428
Gerald Porter & Paula Porter	4940 GROVE ST	CAMBRIA	93428
Harth Happy Hill Home	495 WARWICK ST	CAMBRIA	93428
Brocklebank House	495 Weymouth	Cambria	93428
Mike Griffin	4950 Windsor	Cambria	93428
Spectacular 2 Bedroom Townhome	497 1st Street	Avila Beach	93424
Best Ocean Views	498 1st Street	Cambria	93428
Paul or Kathy Edwards	499 1st Street	Cambria	93428
Shelley Rose	499 Cambridge St.	Cambria	93428
This Unique, Oceanfront Home is so Close to the Beach	50 First St.	Cayucos	93430
J & L Rentals	50 Fresno	Cayucos	93430

Business Name	Address	City	Zip
Arroyo Village Inn	500 Traffic Way	Arroyo Grande	93420
Estero Inn	501 Embarcadero	Morro Bay	93442
Beachwalker Inn	501 S OCEAN BLVD	CAYUCOS	93430
Great Oceanfront Home	5047 Nottingham	Cambria	93428
Cozy Condo by the Sea	505 Casa Del Mar	San Simeon	93452
Ron or Sue Edwards	505 CASA DEL MAR	SAN SIMEON	93452
Seaside Escape	5050 Nottingham	Cambria	93428
Michael & Jacqueline Griffin	5061 Windsor Blvd	Cambria	93428
Richard & Cheryl Smith	5095 WHITE TAIL PL	PASO ROBLES	93446
Newell & Patricia Siler	51 6TH ST	CAYUCOS	93430
Robert / Paula Ausherman	51 Pacific	Cayucos	93430
Durie	51 Ridgeview Drive	Paso Robles	93446
Sea Gull Motel	51 S OCEAN AVE	CAYUCOS	93430
Steve & Dena Price	510 W ORMONDE RD	SAN LUIS OBISPO	93401
Canterbury Cottage	513 Canterbury	Cambria	93428
Craig Hinds	5149 Pembrook	Cambria	93428
Ernest Perevoski	515 Ash	Los Osos	93402
Bird's Eye View	515 Cambridge	Cambria	93428
Bright, Elegant & Tranquil Home	516 Plymouth	Cambria	93428
Perfect for a Small Family	5180 Guildford	Cambria	93428
Park Hill Beach House	5188 Windsor	Cambria	93428
Park Hill Home for 4	5198 Whitehall Ave.	Cambria	93428
Ovanes Kutnerian	520 Hastings	Cambria	93428
Rhonda Merrell	520 HASTINGS ST	CAMBRIA	93428
Cambria Home Escape	5201 Plymouth	Cambria	93428
Creston House at STANGER Vineyards	5225 Hwy 41	Paso Robles	93446
Loretta's Near-Shore Cottage	523 Plymouth St.	Cambria	93428
Pelican Cottage	523 Worcester Drive	Cambria	93428
Bruce & Joan Handel	524 CAMBRIDGE ST	CAMBRIA	93428
Cambridge Retreat	524 Cambridge Street	Cambria	93428
Saraceno & McCann	524 S. Ocean Ave.	Cayucos	93430
Silver Lining	5245 PASEO DE VACA	San Luis Obispo	93401
Across from the Beach	525 Pacific Avenue	Cayucos	93430
Lloyd & Renee Greif	5253 Nottingham Dr.	Cambria	93428
Killer Ocean Views	5253 Whitehall Ave.	Cambria	93428
Jennifer & Dionisio Dago	5270 Plymouth St	Cambria	93428
Peace in the Pines	5275 Hillcrest Dr	Cambria	93428
Tree House	530 Croyden	Cambria	93428
Emily's House	530 Ninth Street	Paso Robles	93446
Bridge Creek Inn	5300 Righetti Road	San Luis Obispo	93401
Windsor Castle	5320 Windsor Blvd.	Cambria	93428
Buena Vista Farm LLC	5325 BUENA VISTA DR	PASO ROBLES	93446
Creekside Bed & Breakfast	5325 Vineyard Drive	Paso Robles	93446
Dial / Markel	5340 Guildford Drive	Cambria	93428

Business Name	Address	City	Zip
James David Grow	5350 Nottingham	Cambria	93428
Daniel & Pamela Hewes-Hartman	536 Weymouth St.	Cambria	93428
Reaume Consulting Group	5373 PARKHILL RD	SANTA MARGARITA	93453
Lawrence & Julie Beltramo	5398 Nottingham Drive	Cambria	93430
Morro Bay Sandpiper Inn	540 Main Street	Morro Bay	93442
Beachcomber Inn	541 Cypress	Pismo Beach	93449
Orchard Hill Farm	5415 Vineyard Drive	Paso Robles	93446
Whale Watch	5431 Nottingham	Cambria	93428
Stonegate Farms	5433 FAIRHILLS RD	PASO ROBLES	93446
John Fermendzin	545 Croyden Lane	Cambria	93428
High Ridge Manor	5458 High Ridge Road	Paso Robles	93446
Sunsets at Shamel Park	5472 Windsor	Cambria	93428
Cambria Park Shores	5498 Windsor	Cambria	93428
Perfect for Your Next Family Gathering	55 10th Street	Cayucos	93430
Spoil Yourself in Luxury	55 San Miguel	Avila Beach	93424
Avila Lighthouse Suites	550 FRONT ST	AVILA BEACH	93424
Harpreet Gill & Bally Singh	5500 Sunbury Ave.	Cambria	93428
Killer Views from Lodge Hill	551 Front Street	Cambria	93428
Gift from the Sea	551 Huntington	Cambria	93428
Piece of Heaven	551 Leighton St	Cambria	93428
Jonathan Martin	552 Front Street	Cambria	93428
Park Hill Sun Worship	5546 Windsor	Cambria	93428
Nearly New Park Hill Home	555 Lancaster	Cambria	93428
Ocean View	56 Bakersfield Ave	Cayucos	93430
Jimmie O'Brien	56 San Miguel	Cambria	93428
Ernest / Kathryn Rossi	560 Baywood Way	Los Osos	93402
Milani / Marquart / Otto	560 PACIFIC AVE	CAYUCOS	93430
Gray's Inn	561 Embarcadero	Morro Bay	93442
Ocean View Condo	561 Lucerne Road	Cayucos	93430
El Colibri Hotel	5620 MOONSTONE BEACH DR	CAMBRIA	93428
Alan Cole	5630 Windsor	Cambria	93428
Mojorisin Ranch	5631 LONE PINE PL	PASO ROBLES	93446
Kim Or Dave Boyt	565 Hastings	Cambria	93428
Scenic, Two Story Beach House	5660 Moonstone Beach Dr	Cambria	93428
Karen's Cottage	5676 Sunbury	Cambria	93428
SASA	57 17TH ST	CAYUCOS	93430
Russell & Linda Matsumoto	57 San Miguel	Cambria	93428
Eagle Oak Ranch	5710 EAGLE OAK RANCH WAY	PASO ROBLES	93446
Hilltop Mobile and RV Park	5715 Santa Cruz Road Spc 66	Atascadero	93422
Risi Property Management	5720 Moonstone Beach Dr	Cambria	93428
Morretti Canyon Estate	5750 Morretti Canyon Road	San Luis Obispo	93401
Shanagolden Retreat	5750 SAINT STEPHENS WAY	TEMPLETON	93465
Denis & Kathleen O'Neal	576 Huntington Road	Cambria	93428
Ocean Views from Every Room	5768 Moonstone Dr.	Cambria	93428

Business Name	Address	City	Zip
Pismo Coast Management & Realty	580 Cypress, Suite N1B	Pismo Beach	93449
That View	5825 Charing	Cambria	93428
Blue Water View	584 Cambridge	Cambria	93428
Matthew / Korie Bayer	585 Canterbury Lane	Cambria	93428
ACA Trust Properties	5859 EL PHARO DR	PASO ROBLES	93446
Roger Lacombe	5884 Sunbury	Cambria	93428
Debra VanLoon	5885 EL PHARO DR	PASO ROBLES	
Gallery with a View	5890 Coventry	Cambria	93428
Reddy Ranch	5895 FORKED HORN PL	PASO ROBLES	93446
Jose & Juana Figueroa	5897 Sunbury	Cambria	93428
Twin Dolphin Inn	590 Morro Avenue	Morro Bay	93442
Astonishingly Beautiful Home with Panoramic Ocean Views	5940 Moonstone Beach Dr	Cambria	93428
Thomas & Jonathan Modugno	597 Park	Cayucos	93430
Serendipity House	598 Leighton St	Cambria	93428
Charming Oceanfront Cottage	598 Pacific Avenue	Cayucos	93430
Vineyard Drive House LLC	5985 VINEYARD DR	PASO ROBLES	93446
Large Split Level Home in Creekside Setting	60 Ash	Cayucos	93430
Luxury Condo in Avila Beach	60 Landing Passage	Avila Beach	93424
Inn at Morro Bay	60 State Park Drive	Morro Bay	93442
Jason Polder	60 Thalberg	Cayucos	93430
Hilton Garden Inn	601 James Way	Pismo Beach	93449
Rancho Deeluxe Vacation Rental	6030 VISTA SERRANO	PASO ROBLES	93446
Days Inn, San Luis Obispo	604 Henderson Ave., #200	San Luis Obispo	93401
Beachfront Condo for 4	605 Lucerne Road	Cayucos	93430
Sans Souci - Without a Care	605 Warren Road	Cambria	93428
Sea Breeze	6055 Charing Lane	Cambria	93465
Royce Romberg	6060 VISTA DEL PASO	PASO ROBLES	93446
Vista Vine Cottage	6070 LAZY HILL RD	SAN MIGUEL	93451
Alta Cresta Orchard & Inn	6073 HIGH RIDGE RD	PASO ROBLES	93446
LoJacono	608 13th St.	Paso Robles	93446
Ocean Pine Retreat	608 Croyden Ln.	Cambria	93428
Come Vacation by the Sea	609 Lucerne Road	Cayucos	93430
Dam Fine Trust	6097 HOG CANYON RD	SAN MIGUEL	93451
Just a 1/2 Block to the Beach	61 7th Street	Cayucos	93430
Simple 2 Story Home with a Forest View	61 Landing Passage	Cambria	93428
Condo You Won't Want to Leave	61 San Miguel	Avila Beach	93424
Aloha Inn	611 El Camino Real	Arroyo Grande	93420
Beach Way Inn	617 E Grande Ave.	Arroyo Grande	93420
Gatsby House	611 Warren Road	Cambria	93428
Ocean Front Beauty	612 Lucerne	Cayucos	93430
Doro One	613 Lucerne	Cayucos	93430
Treasures Vacation Rentals	6131 Missouri Peak Place	Castle Rock	80108
2 Bedroom Condo with a View of the Lagoon	614 Airpark	Oceano	93445

Business Name	Address	City	Zip
Heaven on Happy Hill	614 Ashby Lane	Cambria	93428
Anna Mello	615 Pier Ave.	Oceano	93445
Cozy Early American Log Cabin	615 Warwick	Cambria	93428
Gordon Dole	616 Airpark	Oceano	93445
Grand Avenue Motel	617 E. Grand Ave	Arroyo Grande	93420
Old Moonstone Cottage	6170 Moonstone	Cambria	93428
John Rhonemus	618 Airpark	Oceano	93445
Large Arroyo Grande Home	618 Camino Del Rey	Arroyo Grande	93420
Mariner's Inn	6180 Moonstone Beach Drive	Cambria	93428
Kelly Fitzpatrick	619 Camino Del Rey	Cambria	93428
Little Sur Inn	6190 Moonstone Beach Drive	Cambria	93428
Casa Pelicano	6198 Brighton Lane	Cambria	93428
Lynn & Mark Barlow	62 11th St.	Cayucos	93430
Janet & Gerhard Walbaum	62 Landing Passage	Cambria	93428
Awesome Beach Vacation Location	62 Pacific Avenue	Cayucos	93430
Berwick at Wales	620 Camino Del Rey	Cambria	93428
Secluded Romantic Getaway	620 Randall	Cambria	93428
Winnie's Place	620 Warwick St.	Cambria	93428
Paul McGill	621 Camino Del Rey	Cambria	93428
Beachfront House for 10	623 Lucerne Road	Cayucos	93430
Moonstone Landing	6240 Moonstone Beach Drive	Cambria	93428
El Toro Inn	625 Toro Street	San Luis Obispo	93401
Pleasant Home in the Pines of Cambria	625 Weymouth	Cambria	93428
Sand Peddles Inn	6252 Moonstone Beach Dr.	Cambria	93428
Cambria Shores Inn	6276 Moonstone Beach Drive	Cambria	93428
Jim & Joanne Tarver	630 Orlando	Cambria	93428
Robert & Marianne Okamura	630 ORLANDO DR	CAMBRIA	93428
Pelican Inn & Suites	6316 Moonstone Beach Drive	Cambria	93428
The Beach House Bed & Breakfast	6360 Moonstone Beach Drive	Cambria	93428
Rodney Cegelski	6370 VERDUGO RANCH WAY	AVILA BEACH	93424
Sundown Inn	640 Main Street	Morro Bay	93442
Dielman's Dwelling	640 Park Ave.	Cayucos	93430
Fog Catcher Inn	6400 Moonstone Beach Drive	Cambria	93428
Captain's Cove Lodge	6454 Moonstone Beach Drive	Cambria	93428
Blue Dolphin Inn	6470 Moonstone Beach Drive	Cambria	93428
Clark's Apartment	6482 Moonstone Beach Dr.	Cambria	93428
Crain Family Trust	65 Bakersfield Ave.	Cayucos	93430
Maureen Russell	65 Del Mar	Cayucos	93430
Tom & Marilyn Ezrin	65 SAN MIGUEL	AVILA BEACH	93424
Updated Condo for 8	65 San Miguel	Avila Beach	93424
Carol Lipin	650 Ashby Lane	Cambria	93428
Oxford Suites	651 Five Cities Dr	Pismo Beach	93449
Economy Motel, San Luis Obispo	652 Morro Street	San Luis Obispo	93401
Shell Beach Inn	653 Shell Beach Rd.	Pismo Beach	93449
Cambria Landing Inn	6530 Moonstone Beach Dr.	Cambria	93428

Business Name	Address	City	Zip
Moonstone Cottages	6580 Moonstone Beach Dr.	Cambria	93428
Helen Hansen	66 Hacienda	Cayucos	93430
Birdsnest	660 Huntington	Cambria	93428
Joyce Sanden	661 Ardath	Cambria	93428
Castle Inn	6620 Moonstone Beach Dr.	Cambria	93428
Avila Village Inn	6655 Bay Laurel Drive	Avila Beach	93424
Luxurious Home with Ocean and Ranch Views	6656 Bay Laurel Drive	Cambria	93428
Sea Otter Inn	6656 Moonstone Beach Drive	Cambria	93428
Thomas T.Hare	6657 Bay Laurel Drive	Cambria	93428
Mountain Top Ocean View for Two	6677 Fern Canyon Road	San Luis Obispo	934001
Roy Weigold	67 Flores	Cayucos	93430
Morro Crest Inn	670 Main Street	Morro Bay	93442
Best Western PLUS Fireside Inn	6700 Moonstone Beach Drive	Cambria	93428
The Cabin	671 Warwick	Cambria	93428
Beach House on the Hill	673 Ashby Lane	Cambria	93428
Dam Fine Trust / Neils Udsen	675 N. BETHEL RD.	TEMPLETON	93465
Richard Quinn	6750 VINEYARD DRIVE	PASO ROBLES	93446
Harry & Vonne Miller	676 CANTERBURY LN	CAMBRIA	93428
Vineyard View	6775 AIRPORT RD	PASO ROBLES	93446
Randall Retreat	678 Randall	Cambria	93637
Sagrada Wellness, LLC	6780 W POZO RD	SANTA MARGARITA	93453
White Water Inn	6790 Moonstone Beach Drive	Cambria	93428
Waves and Wine	680/690 S. Ocean Ave.	Cayucos	93430
Windrush Bed & Breakfast	6820 Moonstone Beach Drive	Cambria	93428
Scenic Coast Property Management	683 Main St.	Cambria	93428
Lovely Home with Tasteful Décor	684 Airpark	Oceano	93445
Breathtaking View	69 San Miguel	Cambria	93428
Contemporary 3 Bedroom Conod	69 San Miguel	Avila Beach	93424
Walker's Wharf	693 S. Ocean Ave.	Cayucos	93430
The Inn At Opolo	6970 VINEYARD DR	PASO ROBLES	93446
Single Story Home on the Beach	698 Pacific Avenue	Cayucos	93430
Kathy Wrenn	7 ST MARY	CAYUCOS	93430
Norma Jean Wrenn	7 St. Mary	Cayucos	93430
L.J. Morganti Co.	70 LANDING PASSAGE	AVILA BEACH	93424
Stay in Style at the Beach	70 Landing Passage	Avila Beach	93424
L.J. Morganti Co.	70 SAN FRANCISCO	AVILA BEACH	93424
Rowley Woolpert LLC	70 San Francisco	Avila Beach	93424
John Turner	70 San Miguel	Cambria	93428
Jerry or Susan Halford	70 St Mary	Cayucos	93430
Victor Johnston	701 OCEAN	CAYUCOS	93430
Vacation Spot for 10 or Less	701 S. Ocean	Cayucos	93430
Beach Bum Holiday Rentals	702 Dolliver	Pismo Beach	93449

Business Name	Address	City	Zip
Libretto Cottages	705 Dixie Lane	San Luis Obispo	93401
Spanish Oaks Ranch	7075 VIA SPANISH OAKS	SANTA MARGARITA	93453
Dr. Marshall S. Lewis M.D.	709 Lucerne Road	Cayucos	93430
Barbara F. Roche	71 Landing Passage	Cambria	93428
Janet Orlando	71 San Francisco	Cambria	93428
L'abri by the Sea	71 San Miguel	Cambria	93428
Christpher Joyce Vineyard and Inn	7110 Drake Road	Paso Robles	93446
The Inn at Opolo	7110 Vineyard Drive	Paso Robles	93446
Edward & Suzzane Siegler	72 Landing Passage	Cambria	93428
Ocean Mist	72 San Francisco	Cambria	93428
San Simeon Pines Resort	7200 Moonstone Beach Drive	Cambria	93428
Spanish Oaks Ranch B and B	7200 VIA SPANISH OAKS	SANTA MARGARITA	93453
Enigma	7227 CALF CANYON HWY	SANTA MARGARITA	93453
William Taylor	73 San Miguel	Cambria	93428
Fireside Inn	730 Morro Ave.	Morro Bay	93442
Relax Inn	730 Spring Street	Paso Robles	93446
Cabernet Cottage	738 Vine St.	Paso Robles	93446
Hacienda Oso Libre	7383 VINEYARD DR	PASO ROBLES	93446
Get on the Sand in a Quick Walk	74 10th Street	Cayucos	93430
Connie Troncale/Toni Legras	74 12th Street	Cayucos	93430
Casita at Bobcat Vineyard	741 TWIN CREEKS WAY	SAN LUIS OBISPO	93401
Dam Fine Trust	745 COBBLE CREEK WAY	TEMPLETON	93465
Dog Friendly Cottage	745 Via Concha Road	Nipomo	93444
Hilltop Management LP	7450 ESTRELLA RD	SAN MIGUEL	93451
Cambria Pines Realty	746-A Main St.	Cambria	93428
Bike Lane Inn	749 Gough Avenue	Templeton	93456
Incredible Ocean Views	75 San Antonio	Avila Beach	93424
Gorgeous 2 Bedroom Condo Only 1/2 Block to Beach	75 San Miguel	Avila Beach	93424
Solitude 1	7568 CRESTON RD	PASO ROBLES	93446
Great Oceanfront	76 Pacific Avenue	Cayucos	93430
Lamb Family Trust	76 San Antonio	Cambria	93428
Oak Creek Ranch	760 PARKHILL RD	SANTA MARGARITA	93453
Poeschl Family	765 TWIN CREEKS WAY	SAN LUIS OBISPO	93401
A Little Organic Farm & Cottages	7671 SHADOW MOUNTAIN RD	TEMPLETON	93465
Breen Vacation Station	768 Main St.	Cambria	93428
John or Becky Gilbert	77 N OCEAN AVE 10	CAYUCOS	93430
Dick or Sharon Hadsell	77 N OCEAN AVE 12	CAYUCOS	93430
Patricia Blue	77 N OCEAN AVE 4	CAYUCOS	93430
Mr. & Mrs. Brad Lopez	77 N OCEAN AVE 6	CAYUCOS	93430

Business Name	Address	City	Zip
Craig Calloway	77 N OCEAN AVE 7	CAYUCOS	93430
Kathy Pashone	77 N OCEAN AVE 8	CAYUCOS	93430
Jerome Becker	77 San Antonio	Cambria	93428
Leah & Scott Press	77 San Miguel	Avila Beach	93424
Ralph & Heidi He	77 San Miguel	Cambria	93428
Pleasant 2 Story Home	772 St. Mary	Cayucos	93430
Hauck Bed And Breakfast	7725 VINEYARD DR	PASO ROBLES	93446
HammerSky Vineyards Inn	7725 Vineyard Drive	Paso Robles	93446
Sundance Bed & Breakfast	7735 Sundance Trail	Paso Robles	93446
Holiday Inn Express - Grover Beach	775 N. Oak Park Blvd.	Grover Beach	93433
San Marcos Ranch	775 SAN MARCOS RD	PASO ROBLES	93446
Coastal Escapes, Inc. (Cambria)	778 MAIN ST	CAMBRIA	93428
Coastal Escapes	778 Main St., Suite C	Cambria	93428
Gorgeous, Custom 3 Bedroom Home	779 N Ocean Ave	Cayucos	93430
Breakers Motel	780 Market Ave.	Morro Bay	93442
Cambria Vacation Rentals	784 Main St., Suite A	Cambria	93428
Older & Unique Beach House	784 Pacific	Cayucos	93430
Beach N Bay Getaways	785 Quintana, Suite 222	Morro Bay	93442
Serenity Now	79 San Miguel	Cambria	93428
Maya's Vacation Rentals	791 Price St., #205	Pismo Beach	93449
Large, Modern 3 Bedroom Home	791 St. Mary Ave.	Cayucos	93430
Rad Dog Vineyards LLC	7979 SUNDANCE TRL	PASO ROBLES	93446
Franklin Real Estate & Rentals	798 Morro Bay Blvd.	Morro Bay	93442
Cripple Creek Mountain Ranch, Llc	7997 MELODY MOUNTAIN LN	PASO ROBLES	93446
Just a Few Stairs to the Sand	8 Oceanfront	Cayucos	93430
Custome Home in Cayucos	80 Del Mar	Cayucos	93430
Santorini Style Bungalow	80 Landing Passage	Avila Beach	93424
Ocean View Suite	80 N. Ocean	Cayucos	93430
Magnificent Views	8058 PINEBRANCH RD	BRADLEY	93426
Dragon Lake Rentals	8059 PINE BRANCH RD	BRADLEY	93426
Honey's Hideaway	8069 PINE BRANCH RD	BRADLEY	93426
John & Hilary Townsend	81 Landing Passage	Cambria	93428
Sounds of the Surf	81 San Miguel	Cambria	93428
Water's Edge	81 San Miguel	Cambria	93428
Judith Tobias	8125 SMITH POINT RD	BRADLEY	93426
Seaside Real Estate & Property Management	817 Morro Bay Blvd.	Morro Bay	93442
Susan Harnish	82 10th St.	Cayucos	93430
Sea Watch	82 Landing Passage	Cambria	93428
Bruce W. Howard	820 & 840 SHEFFIELD ST	CAMBRIA	93428
Don & Susan Hornor	8206 WOODY POINT LANE	BRADLEY	93426
Suite 16th	821 16th St.	Paso Robles	93446
Alluring Beach House	825 St. Mary	Cayucos	93430
Dam Fine Trust	8280 CROSS CANYON RD	SAN MIGUEL	93451
Elegant Home Overlooking Cambria's	83 San Miguel	Cambria	93428

Business Name	Address	City	Zip
Surrounding Mountains			
Cottage Inn by the Sea	8351 Price Street	Pismo Beach	93449
Nacimiento-Oak Shores Rental	8391 STUB END CIR	BRADLEY	93426
Alison & Graham Dodson	84 5th St.	Cayucos	93430
Canyon Sanctuary	840 Kenneth	Cambria	93428
Sea Air Inn	845 Morro Avenue	Morro Bay	93442
Jones Ridge	8470 VINEYARD RANCH WAY	PASO ROBLES	93446
Gary Menger	85 San Miguel	Cambria	93428
Best Western Casa Grande Inn	850 Oak Park Road	Arroyo Grande	93420
Cayucos Beachfront Rental	850 Pacific Ave	Cayucos	93430
Blue Sail Inn	851 Market Avenue	Morro Bay	93442
Greib Farmhouse	851 Todd Lane	Arroyo Grande	93420
Casa de Vina	8550 ESTRELLA RD	SAN MIGUEL	93451
Sweet Suite Cayucos	86 Ocean Ave.	Cayucos	93430
Motel 6-Pismo Beach (pb)	860 4th Street	Pismo Beach	93449
Avila Condo Sleeps 9	87 San Miguel	Avila Beach	93424
Bring your Kayak!	870 El Moro Avenue	Los Osos	93402
Nick Visciglio	871 Park Avenue	Cayucos	93430
Abfab Vacation Rentals	871 Stratford	Pismo Beach	93449
Nanci Williams & Dan Orloff	8735 BLUFF CT	BRADLEY	93426
Shon Mosbacher	875 Suffolk	Cambria	93428
Carlos & Sabine Cardenas	8762 PRONGHORN CT	BRADLEY	93426
Carol Hohensee	8764 DEER TRAIL CT	BRADLEY	93426
Mark & Rae Dasnoit	8766 DEER TRAIL CT	BRADLEY	93426
Diane & Tom Rumbaugh	8794 CIRCLE OAK DR	BRADLEY	93426
Jeanne Burdick	88 San Miguel	Cambria	93428
Vines RV Resort	88 Welsona Road	Paso Robles	93446
L.A. Halt LLC	885 W 4TH ST	PASO ROBLES	93446
Dave / Kathy Kinard	89 Del Mar	Cayucos	93430
Alan Graumann	89 San Miguel	Cambria	93428
Pacific Shores Inn	890 Morro Avenue	Morro Bay	93442
Chateau Marmite	890 S. Ocean Ave.	Cayucos	93430
Halter Ranch Victorian Farmhouse	8910 ADELAIDA RD	PASO ROBLES	93446
The Homestead Ranch	8915 CHIMNEY ROCK RD	PASO ROBLES	93446
Anderson Inn	897 Embarcadero	Morro Bay	93442
Landing Passage Luxury Condominiums	90 Landing Passage	Avila Beach	93424
D. Ray Properties, LLC	90 SAN LUIS ST C & D	AVILA BEACH	93424
Enigma	9000 YERBA BUENA	SANTA MARGARITA	93453
Craig Or Carolyn Crump	904 Hartford	Cambria	93428
Striking Oceanfront	9057 Balboa	San Simeon	93452
Sea Breeze Inn	9065 HEARST DR	SAN SIMEON	93452
Motel 6	9070 Castillo Dr.	San Simeon	93452
Spacious and Close to the Beach	91 12th St	Cayucos	93430
Beautiful Home High Above Cambria	91 Landing Passage	Cambria	93428

Business Name	Address	City	Zip
Country House Inn	91 MAIN ST	TEMPLETON	93465
Seaside Escape	9111 Balboa, #1	San Simeon	93452
Jesse Siordia	9111 Balboa, #2	San Simeon	93452
The Morgan	9135 Hearst Drive	San Simeon	93452
Susan & Phillip Chase	914 St. Mary Ave.	Cayucos	93430
Wellspring Ranch, LLC	9150 SANTA RITA RD	CAYUCOS	93430
Needle in a Haystack	9185 SANTA MARGARITA RD	ATASCADERO	93422
Mac Van Duzer Blythe	92 Landing Passage	Cambria	93428
Homestead Motel	920 Olive Street	San Luis Obispo	93405
On the Beach	9229 Balboa	San Simeon	93452
Stephen & Michele Rossi	9255 N FORTY RD	ATASCADERO	93422
Quality Inn	9260 CASTILLO DR	SAN SIMEON	93452
Days Inn	9280 CASTILLO DR	SAN SIMEON	93452
B-W Gallery Guesthouse	9315 SANTA CLARA RD	ATASCADERO	93422
Starr Ranch	9320 CHIMNEY ROCK RD	PASO ROBLES	93446
Lazy Arrow	9330 CAMATTA CREEK RD	SANTA MARGARITA	
Sands By the Sea	9355 HEARST DR	SAN SIMEON	93452
CDM Enterprises	9355 SHAYNA LN	ATASCADERO	93422
Melody Ranch Motel	939 Spring Street	Paso Robles	93446
Silver Surf Motel	9390 CASTILLO DR	SAN SIMEON	93452
Game Room Beach House	94 9th Street	Cayucos	93430
Cavalier Inn	9415 Hearst Drive	San Simeon	93452
Vineyard View	9420 ADELAIDA RD	PASO ROBLES	93446
Courtesy Inn	9450 CASTILLO DR	SAN SIMEON	93452
Linda Van Fleet	949 Pacific Avenue	Cayucos	93430
Oceanside Inn	9492 Avonne Ave	San Simeon	93452
Cayucos Sunset Inn, LLC	95 S OCEAN AVE	CAYUCOS	93430
Capleon, LLC	95 SAN MIGUEL	AVILA BEACH	93424
America's Best Value Inn & Suites	950 Olive Street	San Luis Obispo	93405
San Simeon Lodge	9520 CASTILLO ST	SAN SIMEON	93452
Seastone Ridge	9570 CHIMNEY ROCK RD	PASO ROBLES	93446
Ron Ibara	96 24th Street	Cayucos	93430
Teresa & William Hinrichs	960 PETERSEN RANCH RD	TEMPLETON	93465
Twist Ranch Inc.	9635 CRESTON RD	PASO ROBLES	
Kathy & Floyd Bowman	974 Pacific Ave.	Cayucos	93430
Inn Paradiso	975 Mojave Lane	Paso Robles	93446
Heritage Inn B&B	978 Olive Street	San Luis Obispo	93405
Pismo Creek RV Resort	98 S. Dolliver	Pismo Beach	93449
Packer Enterprises	980 HEREFORD LN	PASO ROBLES	
Incredible Views	980 Park	Cayucos	93430
Historic Dubost Ranch	9850 ADELAIDA RD	PASO ROBLES	93446
Comfortable Home Sleeps 6	99 5th Street	Cayucos	93430
La Serena Inn	990 Morro Avenue	Morro Bay	93442
Branko Properties	Night Hawk Way	Cambria	93428

Business Name	Address	City	Zip
Nancy A Moss	Night Hawk Way	Cambria	93428
Sandra Brockway	Night Hawk Way	Cambria	93428
Villa in the Trees	Night Hawk Way	Avila Beach	93424
Oakdale Ranch Guest House & Saloon	Oakdale Road	Paso Robles	93446
Paso Robles Vacation Rentals	P.O. Box 4129	Paso Robles	93447
Seven Sisters	PO Box 2205	Avila Beach	93424
Best Western - Casa Grande Inn	850 N Oak Park Blvd	Arroyo Grande	93420
Hampton, Wade & Nancy	2410 Wild Lilac Court	Meadow Vista	95722
Interval International Inc	6262 Sunset Drive #PH1,	Miami, FL	33143
Limas Properties	P.O. Box 189	Tulare	93275
Milstead, Scott & Dana (Condo)	750 Price, Pismo Beach	Pismo Beach	93449
Pismo Beach Vacation Townhomes	P.O. Box 3114	Pismo Beach	93448
Pismo on the Beach Vacation Rentals	848 Tempus Circle	Arroyo Grande	93420
Premier Inns	2482 Hotel Circle Pl	San Diego	92108
Resort Rental, LLC	9998 N. Michigan Road	Carmel, IN	46032
Walton Family Industries, LLC	PO Box 11127	Fresno	93771

PETITION TO THE COUNTY OF SAN LUIS OBISPO
TO FORM THE SAN LUIS OBISPO COUNTY TOURISM MARKETING DISTRICT

We petition you to initiate special assessment proceedings to form the San Luis Obispo County Tourism Marketing District in accordance with the Property and Business Improvement District Law of 1994, Streets and Highways Code Section 36600 et seq., for the purpose of providing services as described in the summary of the Management District Plan attached hereto as Exhibit A.

Lodging Establishment	Business Owner

By my signature below, I certify that I am authorized to sign this petition on behalf of the business(es) listed above.

Owner Representative/Owner Name (printed) Title

Owner/Representative Signature Date

A complete copy of the Management District Plan will be furnished upon request. Requests for a complete copy of the Management District Plan should be made to:

For copies or questions:	To return signed petition by mail:
Ms. Stacie Jacob, CEO Visit San Luis Obispo County 835 Twelfth Street, Suite 204 Paso Robles, CA 93446 (805)541-8000 Stacie@visitsanluisobispocounty.com	County Clerk-Recorder's Office ATTN: Countywide BID Process County of San Luis Obispo 1055 Monterey Street Room D120 San Luis Obispo, CA 93408

The Management District Plan is also available online at: http://tinyurl.com/SLO-MDP

EXHIBIT A

MANAGEMENT DISTRICT PLAN SUMMARY

Location: The proposed SLOCTMD includes all lodging businesses located within the boundaries of the cities of Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo, and the unincorporated portions of the County of San Luis Obispo, as shown on the attached map.

Services: The SLOCTMD is designed to provide specific benefits directly to payors by increasing room night sales. Marketing, sales, promotions, and advertising will increase overnight tourism and market payors as tourist, meeting, and event destinations, thereby increasing room night sales.

Budget: The total SLOCTMD annual budget for the initial year of its five (5) year operation is anticipated to be approximately $2,800,000. This budget is expected to fluctuate as room sales do, but is not expected to significantly change over the SLOCTMD's term.

Cost: The annual assessment rate is one percent (1%) of gross short-term (stays 30 or fewer consecutive days) room rental revenue. Based on the benefit received, assessments will not be collected on certain stays as described in Section V of the Management District Plan.

Duration: The proposed SLOCTMD will have a five (5)-year life. The SLOCTMD assessment will be implemented beginning January 1, 2015 (or as soon thereafter as practicable) for five years, through December 31, 2019 (or five years from the actual start date). Once per year beginning on the anniversary of the formation of the district there is a 30-day period in which owners paying more than 50% of the assessment may protest and initiate a Board of Supervisors hearing on district termination.

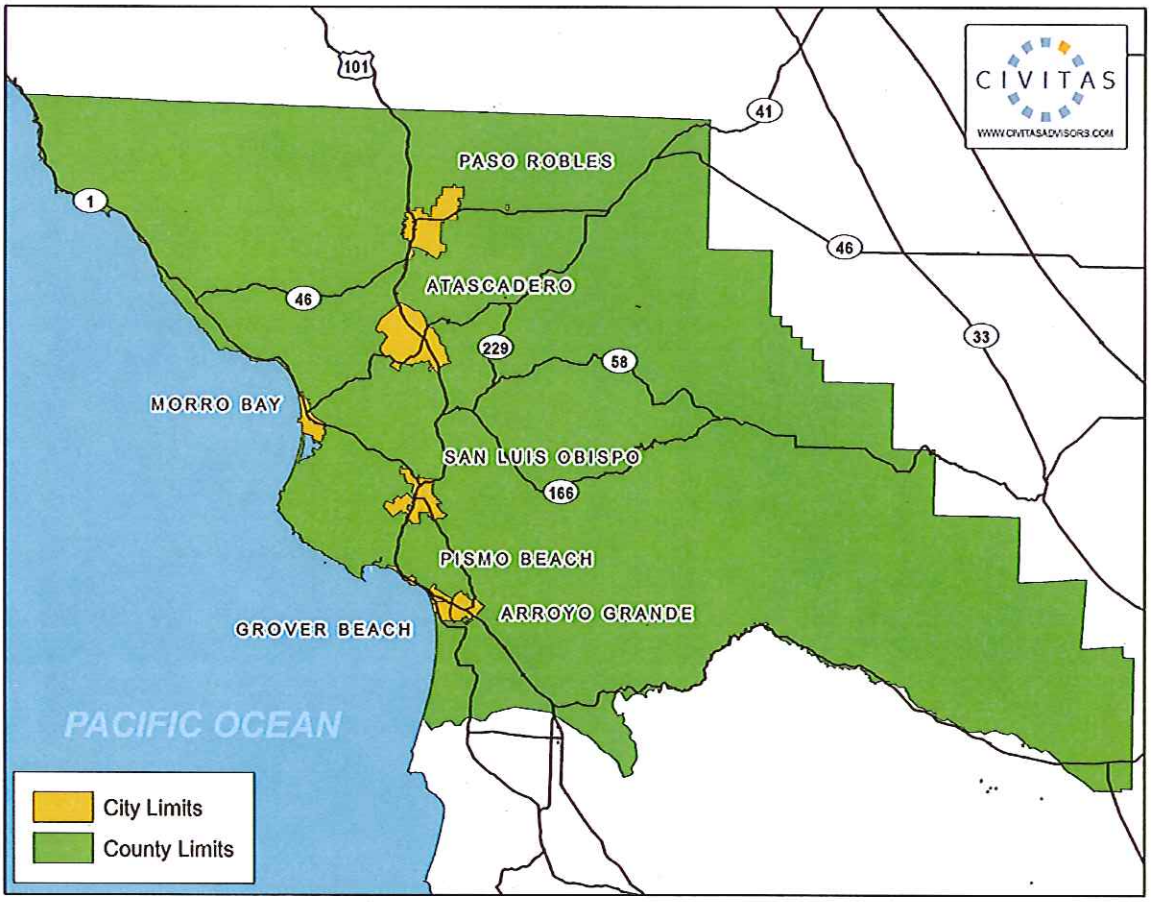
Collection: The assessment will be collected at the same time and in the same manner as are Transient Occupancy Taxes. The County and each City will be responsible for collecting the assessment from lodging businesses within their respective jurisdictions on a monthly or quarterly basis (including any delinquencies, penalties and interest).

Management: Visit San Luis Obispo County (VSLOC) is the nonprofit corporation which will serve as the SLOCTMD's Owners' Association. As the Owners' Association, VSLOC is responsible for managing funds and implementing programs in accordance with this Plan. The VSLOC Board of Directors and staff will be responsible for day-to-day program management and direction, within the guidelines set by this Plan. On an annual basis, VSLOC must provide a report on TMD activities and expenditures to the Board of Supervisors.

EXHIBIT A

MANAGEMENT DISTRICT PLAN SUMMARY

Boundary Map



Economic Vitality Corporation
735 Tank Farm Road, Suite 264
San Luis Obispo, CA 93401
TEL (805) 788-2012
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501(c)(3) Non-profit

September 25, 2014

Stacie Jacob
Executive Director
Visit San Luis Obispo County
835 12th Street, Suite 204
Paso Robles, CA 93446

Re: **San Luis Obispo County Tourism Marketing District**

Dear Stacie,

On behalf of the Board of Directors of the Economic Vitality Corporation, an organization on which you serve, we wish to extend our enthusiastic support for the type of Tourism Marketing District (TMD) that your organization is proposing.

While the EVC is prevented from endorsing specific projects as a policy, based on the information that you have provided to the EVC, we believe that the collaborative model that you describe could benefit one of the largest sectors of our local economy – tourism. As described for us by your organization, neighboring counties are using TMD models that you propose, and they are benefiting from such.

Although the EVC as an organization has no direct expertise in this matter, the EVC seeks advice from the leaders of the economic strategy clusters, in this case Uniquely SLO County, comprised of a group of business leaders who are independent of the EVC, lend their advice. They are seeking to officially support the proposed TMD.

Thank you for helping to create a more vital local economy for one of our biggest sectors.

On behalf of the Economic Vitality Corporation Board of Directors, please know we are here to support your proposed TMD.

Sincerely,

Eric Schwefler, CPA
Chair, Board of Directors

Michael E. Manchak
President & CEO

cc: EVC Board of Directors
Chuck Davison

visit California

CHAIR
Michael E. Rossi
Senior Advisor to the Governor of California

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California Restaurant Association

CHIEF FISCAL OFFICER
Noreen Martin
Chief Executive Officer
Martin Resorts Inc.

PRESIDENT & CHIEF EXECUTIVE OFFICER
Caroline Beteta
Director of Tourism
Governor's Office of Business and Economic Development

Sept. 25, 2014

To Whom It May Concern:

I am writing to offer my support for the countywide Tourism Marketing District being explored by San Luis Obispo County.

With its stunning landscapes, rich heritage and world-class food and wine, San Luis Obispo is a natural destination for tourists. But time and time again, we've learned that tourism doesn't just happen. Having a perfect destination isn't enough – the world needs to hear about it.

San Luis Obispo County's TMD will generate the funds needed to market your destination regionally, nationally and internationally. Tourism in California contributed $110 billion to state businesses in 2013, directly supporting jobs for nearly 1 million Californians and generating $7.1 billion in tax revenues for vital state and local services. Tourism is a primary economic driver in San Luis Obispo County, too, and its benefits extend into every corner of the community. Visitors spent $1.3 billion in San Luis Obispo County in 2012, and the industry employed more than 16,000 people. Transient occupancy taxes generated $27.4 million for cities in San Luis Obispo County in 2013 – a number that will grow as tourism flourishes.

More than 80 California communities have enacted TMDs to support tourism. Statewide, they spend $150 million to attract visitors to their region. Without money to promote itself, San Luis Obispo County's market share of tourism will be eroded by competing regions. Better-funded competitors in Santa Barbara County, Monterey County and others will lure away visitors – and their dollars.

There are many examples illustrating the importance of promoting tourism. Unfortunately, most of these lessons have been learned the hard way. In the early 1990s, Colorado eliminated its tourism funding. Before the end of the decade, the

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state watched the number of visitors drop by one third. More recently, a dispute in San Diego forced the cancellation of the city's television advertising. Within months, the city's hotel occupancy declined 4.3 percent – the sharpest decline among the 25 largest U.S. markets.

The TMD you are considering is a smart investment. Statewide, for every dollar Visit California spends on marketing, $355 is returned to the community in the form of additional spending at state businesses. An additional $25 for each dollar spent is injected into tax coffers. This is a fantastic return on investment, and San Luis Obispo County stands to benefit similarly from its own TMD.

As you weigh support for this TMD, I hope you will consider the myriad benefits of a thriving tourism industry.

Sincerely,

Caroline Beteta

Caroline Beteta
President & CEO
Visit California

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AGENDA NO: C-4

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor and City Council** **DATE: December 8, 2014**

FROM: **Rob Livick, PE/PLS - Public Services Director/City Engineer**

SUBJECT: **Review of Final Report for New Water Reclamation Facility (WRF) Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina, including new information regarding cost and design based on Carollo Engineers detailed evaluation of the CMC site and by MKN Associates for the Rancho Colina Site; by John F Rickenbach Consulting with the Adoption of Resolution 77-14 stating the City Preference for new WRF site location**

RECOMMENDATION

Staff recommends the Council review the report, including new information from Carollo and MKN, and WRFCAC recommendations, take public comment and make the site preference selection to continue the analysis necessary to locate the new WRF at the Rancho Colina site, by adopting Resolution 77-14.

ALTERNATIVES

1. Continue this item if additional information is required by City Council prior to making the final site preference selection.

2. Based on the information available, make the determination to conduct further analysis for siting the new Wastewater Treatment Plant at the CMC site, and direct staff to begin work on the required draft agreements needed to secure the site as a viable location to treat and dispose of Morro Bay's wastewater; and direct staff to bring back a modified Resolution for approval.

BACKGROUND/DISCUSSION

This staff report supplements the report prepared for Council at the November 12, 2014, meeting where the JFR report was lacking the engineering and cost comparisons between the CMC Facility and Rancho Colina sites. The attached final report from John F Rickenbach (JFR) Consulting is an evaluation of the CMC Facility vs Rancho Colina sites; including details relating to cost and design based on Carollo Engineers' detailed evaluation of the CMC site and MKN's "Avocados-to-Avocados" comparison of a functionally equivalent facility at the Rancho Colina site.

Prepared by: __RL __ **Dept. Review: RL__**

City Manager Review:_____

City Attorney's Review:_____

Factors influencing the decision regarding site selection have been detailed in the report and while the conclusion could have been made without the cost information, we can now confirm the Rancho Colina site as the preferred WRF site.

A facility constructed at CMC has been estimated at $161.5 million in total project costs versus an equivalent facility at Rancho Colina estimated at $81.4 million, with a most probable project cost at Rancho Colina estimated at $74.2 Million. The reason for the $7 million differential in cost is the most probable project omits facilities which are included in the CMC project, but not required for a joint facility at Rancho Colina.

Factors that have influenced the estimated project cost at CMC include following:

- Existing CMC facility does not have sufficient capacity for either Morro Bay or Cayucos Sanitation District (CSD), while still accommodating their existing contractual obligations.
- Significant upgrades will be required at the existing facility including two to three additional oxidation ditches and clarifiers.
- Doubling of the Tertiary Filtration and UV disinfection systems will be required.
- Solids dewatering require additional equipment.

On December 3, 2014, the WRFCAC held a special meeting to review the engineering analysis and cost estimates for both the Rancho Colina and CMC sites and, with an eight to one vote, recommended the City Council express its preference for the Rancho Colina site with the following caveats:

- The final Carollo Engineers cost estimate goes up, not down for CMC.
- There is an opportunity to discuss the environmental strategies and disposal options in Morro Creek.
- Continue to evaluate environmental factors that could prove to be a fatal flaw.
- Investigate the optimal location of groundwater injection for recharge benefits.

CONCLUSIONS

With the total project cost for CMC doubling the Rancho Colina estimate, the final JFR report makes a compelling argument the optimal site for the benefit of Morro Bay, and our CSD partners, is the Rancho Colina site. It is staff's recommendation for Council to adopt Resolution 77-14 which will authorize preparation of the Facilities Master Planning and Environmental review process for use by the City Council, and CSD, if it so chooses, to authorize construction of the WRF at the Rancho Colima site.

ATTACHMENTS

1. Final *Report for New Water Reclamation Facility Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina* dated December 9, 2014.

RESOLUTION NO. 77-14

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA, REGARDING THE LOCATION PREFERENCE FOR CONTINUING THE ANALYSIS NECESSARY FOR SITING OF A NEW WATER RECLAMATION FACILITY

T H E C I T Y C O U N C I L
City of Morro Bay, California

WHEREAS, the City of Morro Bay has an existing Wastewater Treatment Plant (WWTP) that requires replacement; and

WHEREAS, it has been determined to be in the best interest of Morro Bay to construct a new Water Reclamation Facility (WRF) that complies with the January 8, 2013 California Coastal Commissions actions; and

WHEREAS, it is in the best financial interest of the community to minimize the major maintenance and repair costs at the WWTP; and

WHEREAS, it is also in the best financial interest of the community to proceed with the construction of a WRF due to the time value of money and minimizing the cost increases due to inflation; and

WHEREAS, on February 25, 2014, the City Council resolved to have a WRF operational prior to the expiration of the discharge permit for the existing WWTP, being five years more or less; and

WHEREAS, on May 13, 2014, the City Council reviewed the report from John F. Rickenbach Consulting (JFR) regarding recommended sites for the WRF and reclamation; and

WHEREAS, the community has provided input through goal setting designating project goals including:

- Produce tertiary, disinfected wastewater in accordance with Title 22 requirements for unrestricted urban irrigation in a cost effective manner for all rate payers.
- Design to be able to produce reclaimed wastewater for potential users, which could include public and private landscape areas, agriculture, or groundwater recharge. A master reclamation plan should include a construction schedule and for bringing on customers in a cost effective manner.
- Allow for onsite composting
- Design for energy recovery
- Design to treat contaminants of emerging concern in the future
- Design to allow for other possible municipal functions
- Ensure compatibility with neighboring land uses; and

WHEREAS, the WWTP in its present location is subject to the effects of Coastal Hazards such as: Tsunami, Storm Surge and Coastal Flooding; and

WHEREAS, the action of moving the critical public infrastructure, such as the WRF, outside the area of Coastal Hazards is consistent with the State's Managed Retreat and the City's Climate Action Policies; and

WHEREAS, removing the WWTP from its present location and locating a WRF away from the coast allows for the "highest and best use" of this beach front property" as visitor serving or recreational use; and

WHEREAS, due to the continuing drought in California, the limited and interruptible nature of the State Water Project and the City's desire a LCP policy to develop a reclaimed water supply with the upgrade of its wastewater treatment system; and

WHEREAS, at their November 5, 2014, meeting, the City's Water Reclamation Facility Citizens Advisory Committee (WRFCAC) recommended the City Council delay their decision regarding site selection until after the report from Carollo Engineering is complete and the WRFCAC can make a recommendation to the City Council; and

WHEREAS, on November 12, 2014, the City Council reviewed the incomplete report from JFR Consulting entitled of *Report for New Water Reclamation Facility Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina* and chose to defer their decision until technical information regarding the preliminary design ant cost analysis for both the CMC and Rancho Colina facilities could be presented on December 9, 2014*;* and

WHEREAS, the final JFR Consulting report makes a compelling argument the optimal site, for the benefit of Morro Bay, is the Rancho Colina site; and the Carollo Engineers/MKN engineering and cost analysis confirms those conclusions; and

WHEREAS, on December 3, 2014, the WRFCAC met to review the engineering analysis and cost estimates for both the Rancho Colina and CMC sites and recommends the City Council express its preference for analyzing the Rancho Colina site as the location for the WRF with the following caveats:

- The final Carollo Engineers cost estimate goes up, not down for CMC
- There is an opportunity to discuss the environmental strategies and disposal options in Morro Creek
- Continue to evaluate environmental factors that might be a fatal flaw
- Investigate the optimal location of groundwater injection for recharge benefits; and

WHEREAS, on December 9, 2014, the City Council reviewed *Final Report for New Water Reclamation Facility Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina,* including the engineering analysis and cost estimates for both the Rancho Colina and CMC sites; and

WHEREAS, the abovementioned final report concludes the Rancho Colina site is preferential to the CMC sites based on a variety of reasons, including meeting the City Council's time schedule goal, beneficial use of reclaimed water, and total project cost with a project at CMC estimated at $161.5 Million, versus an equivalent facility at Rancho Colina estimated at $81.4 Million, with a most probable project at Rancho Colina estimated at $74.2 Million.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Morro Bay, California, as follows:

1. The City Council has reviewed the report entitled Final *Report for New Water Reclamation Facility Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina* dated December 9, 2014, and accepts its conclusions and recommendations.

2. The City Council directs staff to begin the Facilities Master Planning and Environmental Review to continue the analysis necessary for the Council to authorize construction of a Water Reclamation Facility at the preferred site location of the Rancho Colina site, in accordance with the previously adopted Five-Year schedule.

PASSED, APPROVED, AND ADOPTED, by the City of Morro Bay City Council, at a regular meeting held on this 9th day of December, 2014 by the following vote:

AYES:

NOES:

ABSENT:

_____
Jamie L. Irons, Mayor

ATTEST:

_____
Jamie Boucher, City Clerk

New Water Reclamation Facility Project

Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina

Final Report

Submitted to:
City of Morro Bay
Department of Public Services

December 9, 2014

John F. Rickenbach Consulting
7675 Bella Vista Road
Atascadero, California 93422

Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina

Final Report

City of Morro Bay
New Water Reclamation Facility Project

Prepared for:
City of Morro Bay
595 Harbor Street
Morro Bay, California 93442

Prepared by:
John F. Rickenbach Consulting
7675 Bella Vista Road
Atascadero, California 93422

In association with:
Michael K. Nunley & Associates

December 9, 2014

JFR
PLANNING AND ENVIRONMENTAL CONSULTING

MORRO BAY

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Appendices

- *Appendix A: Letter from San Luis Obispo County to CDCR (October 29, 2013)*
- *Appendix B: Capacity Evaluation of the California Men's Colony Wastewater Treatment Plant* (Carollo Engineers, December 2014)
- *Appendix C: Design Alternative for the Rancho Colina Site* (MKN and Associates, December 2014)
- *Appendix D: Water Supply Cost Analysis* (MKN and Associates, December 2014)
- *Appendix E: Regulatory Implications of Discharge for the Future City of Morro Bay Water Reclamation Facility* (Larry Walker Associates, September 2014)
- *Appendix F: Initial Findings on Grants and Strategy* (Kestrel Consulting, October 2014)
- *Appendix G: Hydrologic Evaluation of the Potential Benefits to the City Water Supply from Reclaimed Water Use in the Chorro Valley and Morro Valley* (Cleath-Harris Geologists, November 2014)
- *Appendix H: Letter from California Coastal Commission to City of Morro Bay (December 2, 2014)*

City of Morro Bay
New Water Reclamation Facility Project
Comparative Site Analysis:
Regional CMC Facility vs. Rancho Colina

1. Purpose of this Report

As part of its December 2013 and May 2014 site recommendations, the City Council acknowledged the possible merit of pursuing a regional facility that could serve multiple agencies, citing the potential benefits of sharing the cost of construction, operation and maintenance with partner agencies, if a suitable working framework could be established. This report presents the findings of the extent to which the City's participation in a regional facility would be comparatively preferable to developing a new facility at the Council's previously recommended Rancho Colina site. This report draws on several new studies, including the following:

1. *Regulatory Implications of Discharge for the Future City of Morro Bay Water Reclamation Facility* (Larry Walker Associates, September 2014)
2. *Hydrologic Evaluation of the Potential Benefits to the City Water Supply from Reclaimed Water Use in the Chorro Valley and Morro Valley* (Cleath-Harris Geologists, October 2014)
3. *Initial Findings on Grants and Strategy* (Kestrel Consulting, September 2014)
4. *Capacity Evaluation of the California Men's Colony Wastewater Treatment Plant* (Carollo Engineers, December 2014)
5. *Design Alternative for the Rancho Colina Site* (MKN and Associates, November 2014)

This report also draws on information previously developed in support of the City's December 2013 *Options Report*, which did not analyze a regional facility at CMC, but examined a City-only facility at that location. The new report considers the possible benefits of cost-sharing among agencies at a regional facility, and compares other key issues, including reclamation potential, possible benefits to the City's water supply, logistical challenges, and permitting considerations.

2. Executive Summary

This report presents the findings of the extent to which the City's participation in a regional facility at California Men's Colony would be preferable to developing a new facility at the City Council's preferred Rancho Colina site. While both sites are potentially suitable for a new regional WRF, the **Rancho Colina** site is considered better overall. Key considerations in this determination include:

- Long-term benefits of water reuse in Morro Valley exceed those in the Chorro Valley for the following reasons:

- Siting in the Morro Valley provides an opportunity to optimize reuse of State Water to restore a severely deleted groundwater basin that already experience agricultural demands that exceed the basin's safe yield (Cleath, 2014);

- The City can likely improve the reliability of its existing appropriated water right and acquire additional water rights based on the reclaimed water used to recharge the basin;

- Once the basin is restored and operated in a sustainable fashion, the City gains the ability to reduce its reliability on State Water and use a less expensive water supply to significantly reduce water costs to rate payers;

- The Rancho Colina site is much closer to both the existing Morro Bay Desalination Plant and the Ocean Outfall, both of which provide vital infrastructure support to direct agricultural and future potable water reuse;

- The Rancho Colina site and City water distribution system are within 2 miles of both the Whale Rock and Chorro Valley Turnout, thereby enabling broader distribution of reclaimed or potable City water throughout San Luis Obispo County. The CMC WWTP is a similar distance from both pipelines, so that site does not have an advantage relative to proximity to major water conveyance facilities.

- Recharge of the Morro Valley aquifer provides three secondary benefits by:
  - Reducing the risk of seawater intrusion into the City well fields (Cleath, 2014)
  - Increased pumping which could remediate existing nitrate contamination in the basin because of the unique hydrogeographic conditions at "the Narrows" (Nitrate Study, Cleath, 2014)
  - Direct or indirect groundwater recharge of the aquifer through either percolation ponds or stream discharge which could potentially enhance aquatic habitat in both Morro and Little Morro Creeks

- The City's 5-Year Goal is not achievable at the CMC site, for the following reasons:

  - Neither CDCR nor the County appear likely to make expansion of the WRF facility at CMC a priority in their 5-year capital improvement program;

  - Pursuit of a regional facility at CMC would require extensive study and multiple state agency approvals, which may take at least a year or longer to even determine feasibility. If the State denies the project concept, the City would need to pursue a different site.

  - A multi-agency framework for operation, maintenance, cost-sharing, and water rights would need to be developed at CMC, which would take considerable time.

- Rancho Colina has highly motivated private property owner, willing to work with the City, and there are no agency-related constraints to transferring ownership or operation to the City, which will save considerable time. Conversely, the CMC site is currently encumbered by an existing State Bond, which could significantly complicate property transfer/acquisition.

- The cost to build and operate a WRF at Rancho Colina site would be substantially lower than at the CMC site. The capital costs for the CMC expansion to accommodate the City and CSD is estimated at $161 million based on detailed process modeling and cost opinions. A functionally equivalent Phase I "Reclamation Ready" system at Rancho Colina would be approximately $75 million. Annual O&M costs would be higher at CMC due to higher energy and chemical costs per gallon of treated water.

- In their preliminary review of the two sites, California Coastal Commission staff considers the Rancho Colina site preferable relative to meeting that agency's goals.

- The City will have more flexibility at a "greenfield", or undeveloped, site to pursue innovative treatment approaches, energy-efficient technologies or alternative energy elements such as solar panels, composting, and other City priorities identified during the public workshops in 2013, rather than if they are a partner in the expansion of the existing CMC plant.

- Although a new WRF at CMC could improve the City's water supply from its wells Chorro Valley wells, the City would also benefit from a WRF in the Morro Valley indirectly by creating an additional water supply that could benefit growers in the Morro Valley and improve the utility of the City's wells in that valley. In addition, some of the City's theoretical water supply gain in the Chorro Valley from a CMC site could be offset by minimum streamflow requirements in Chorro Creek, or complications related to achieving water quality goals in that basin.

Table ES-1 summarizes the major findings of the report relative to the key issues and questions included in the analysis:

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
A. What are the unique *regional* benefits associated with constructing a regional facility at the CMC site instead of a facility at Rancho Colina? How do these relate to the City's stated goals for the new WRF?	• The CMC's primary unique regional advantage is that it would combine all key agencies (State, County, Morro Bay, and CSD) into a single facility, thus reducing long-term administrative permitting issues with respect to the RWQCB. This benefit, however, presumes that the substantial administrative challenge of having the State and County lead this effort can be overcome. At the same time, RWQCB staff acknowledged that there would not be any other obvious unique regional benefit with respect to the CMC site. • Rancho Colina's unique regional benefits have to do with economics, particularly with respect to agriculture. Avocados dominate the Morro Valley, and they are a significant geographic component of this an important regional crop. By making reclaimed water available to Morro valley growers, the potential economic benefit is higher, especially in the context of the current situation, where growers have severely cut back trees due to lack of available water. • There is no locational advantage for either site relative to their proximity to the existing regional water distribution network. However, from a cost standpoint it is more advantageous to locate the WRF closer to the primary wastewater sources (rather than the ultimate water users), and in that respect, Rancho Colina is much better.	Rancho Colina

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
	• Overall, while both sites have good regional potential, the comparative unique regional benefits are better at Rancho Colina, especially when viewed through the lens that developing a workable multi-agency framework and expanded facility at CMC is a remote possibility over the next several years. In contrast, the regional benefits of a new plant at Rancho Colina could likely be realized sooner, while existing regional benefits at CMC (where the State and County are currently served) can continue as is.	
B. Are there potential cost savings for the City if it participates in a regional facility as compared to Rancho Colina? How will the construction and operation of ancillary facilities the City would need (such as a raw sewage conveyance pipeline from CMC to the City) affect the cost to the City? How do the capital costs compare, as well as the lifecycle costs, of both alternatives?	• The existing CMC facility has no excess capacity for either CSD or the City. • Effluent permit requirements related to total dissolved solids (TDS) and total nitrogen (TN) result in considerably higher treatment costs at the CMC site compared to the Rancho Colina site. • The additional cost for raw wastewater force main and pumping and brine discharge from the CMC site is significant since 6 miles of pipeline are required in excess of the requirements for Rancho Colina. • The capital costs for CMC and a functionally equivalent Phase I WRF at Rancho Colina are estimated at $161M and $75M, respectively. O&M costs are higher at CMC due to higher energy and chemical costs per gallon of treated water. Therefore, lifecycle costs are also higher. • The only O&M cost benefit to sharing the facilities is to share staffing but that savings does not offset the additional power and chemical costs.	Rancho Colina
C. Are there unique water supply benefits for the City associated with the CMC site as compared to Rancho Colina? How does the future potential for direct potable reuse factor into this?	• Overall, both sites have a similar level of benefit to City water supplies. • The CMC Site presents the highest total benefit (950 AFY) to the City water supply during a drought year. During normal and wet years, over 60% of the City and CSD's treated wastewater would continue to flow to the ocean. • The Rancho Colina Site presents the highest water supply benefit (900 AFY) to the City water supply during normal and wet years. • The Rancho Colina Site with direct agricultural reuse and wet weather disposal through the ocean outfall presents the least effluent permitting challenges. Should the CSD choose to become a customer of the City, there could be an additional 225 AFY available resulting in a total of 1,125 AFY. • If streamflow augmentation at Morro Creek were pursued, the permitting challenges and future regulatory risk would likely be less than those at Chorro Creek according to the Discharge Options report (LWA, 2014). The amount of water supply benefit would be similar to that at the CMC Site. • After considering the total cost to reclaim the water under both alternatives, including Phase II reclamation facilities at Rancho Colina and cost to treat both the "in-lieu" recharge at Morro Valley and provide nitrate removal for water from Chorro Valley, the cost for	CMC and Rancho Colina are similar overall, but each has unique considerations

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
	recovered water at CMC would be over $20,000 per AF compared to $8,000 to $9,000 per AF at Rancho Colina. Including CSD flows reduces the cost of recovered water per AF at Rancho Colina due to the economy of scale in building new facilities.	
D. What are the water reclamation opportunities for agricultural use from a regional facility at the CMC site, and how do these compare to Rancho Colina?	• In all, it is estimated that about 70% of the irrigated agricultural land in the Morro Valley sits at lower elevation than the Rancho Colina site, or about 700 acres, nearly all of which is within two miles of the City, and even closer than that to the WRF site. This compares to about 545 irrigated acres in the Chorro Valley that stand below the elevation of the CMC site, about 3-4 miles downstream from the CMC site, and about 1.5 to 2 miles upstream from the City. Generally, higher elevation difference between water customers and the reclaimed water supply will result in higher capital and power costs. • In summary, there is about 25% more accessible (lower elevation) irrigated agricultural acreage in the Morro Valley than in the Chorro Valley, and it is generally much closer to both the City limits and the proposed WRF site, which has positive ramifications relative to reclamation pipeline infrastructure cost. • Overall, while both valleys have substantial irrigable acreage, there are greater opportunities in the Morro Valley, near the Rancho Colina site, as well as greater demand for irrigation water in that valley, which has been historically pumped into overdraft.	Rancho Colina
E. Are there unique regulatory or logistical constraints that may limit potential water supply or reclamation benefits of a regional facility at the CMC site? How does that compare to Rancho Colina?	The following are substantial logistical constraints at the CMC site: • The transfer of operations of the current facility from the State (CDCR) to the County; • CDCR's current lack of interest in effecting a transfer since this would not be major, long-term program that would not meet any agency goals or priorities, as confirmed by CDCR staff; • The fact that multiple state agencies would need to study and approve a potential transfer and involvement of municipal customers such as Morro Bay and CSD, which will take considerable time; • The County's lack of urgency and/or staff availability in leading the effort to investigate and operate a regional facility; • The need to establish a multi-party agreement among potential water supply beneficiaries for reclaimed water that is discharged to Chorro Creek; • A lack of a coordinated effort and differing goals between the City of Morro Bay and CSD relative to moving forward with a new WRF; and • The fact that the four potential partner agencies have not engaged in any preliminary coordination efforts toward a potential working framework, an effort that would need to be led by the County. • Collectively, these interagency logistical issues present significant challenges, and raise substantial concerns that a new regional facility	Rancho Colina

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
	can be built and operated at the CMC site in the near future. The following issues apply to the Rancho Colina site: • The possible need to establish a multi-party agreement among potential water supply beneficiaries for reclaimed water that is discharged to Morro Creek, if reclaimed water is not stored in percolation ponds or offsite ponds for potential agricultural use; • Pipeline infrastructure associated with the project that may be within Caltrans rights-of-way would require an encroachment permit from that agency. • Overall, the Rancho Colina site can be much more realistically accomplished within the framework of the City's goals related to timing, water supply benefits, and reclamation potential.	
F. Are there physical site constraints at CMC that may limit project design flexibility? Will a regional facility likely be an expansion of the existing facility or will an entirely new facility be required?	• Expansion of the existing facility to accommodate the City and CSD will require doubling the footprint of the existing facility. No existing unit processes are sized for handling the additional flows and loads from the City and CSD. • Design flexibility is constrained by the need to match the existing facilities and technology. For example, new centrifuges will be required for solids dewatering whereas newer technologies, such as screw press, that use less power and have lower capital cost could be considered at a new site such like Rancho Colina. • Relocation of the existing recycled water storage pond and a maintenance building will be required at CMC and have not been included in the cost opinions at this time.	Rancho Colina
G. What are the environmental issues that may be of concern to the Coastal Commission or the general public at the CMC site as compared to Rancho Colina?	• Each site is far from the coast and separated by intervening topography, so a new WRF at either location will not be visible from the coast or block coastal access. • Neither site is subject to coastal hazards because of their elevation and distance from the ocean or estuary. • The most developable portions of both sites do not contain designated ESHA, although there is ESHA on the margins of both Chorro and Morro Creek. • The entire CMC site is considered prime farmland, although the existing wastewater plant location is not in agricultural production. The most developable portion of the Rancho Colina site does not contain prime soils, although the lower portion of the property is considered prime if irrigated and drained. The Rancho Colina site supports grazing activities. • Neither site supports known cultural resources, but there is the potential to do so at either location because of known prehistoric human habitation in the area. Pipeline infrastructure from the Rancho Colina site would traverse a known cultural resource site, CA-SLO-165, which may result in impacts that require mitigation. • The Rancho Colina site is substantially closer to the City's existing infrastructure network than the CMC site, and thus development at	Rancho Colina (a conclusion supported by Coastal Commission staff)

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
	that location may use somewhat less energy—which translates into lower greenhouse gas emissions. • For the reasons stated above, and based on its own preliminary analysis summarized in its letter to the City dated December 2, 2014, Coastal Commission staff concluded that the Rancho Colina site would be comparatively better relative to the potential achievement of Coastal objectives.	
H. How will the discharge limitations and design goals of the treatment facility differ at the CMC and Rancho Colina sites? How will the treatment facilities differ as a result?	• Overall, the CMC site presents greater permitting challenges than development at the Rancho Colina site, which will have a direct adverse impact on the cost of the facility at that location. • The CMC wastewater treatment plant discharge presents the most stringent regulatory requirements and greatest risk for additional requirements in the future. These have a direct impact on the cost to construct and operate the treatment facility, in addition to the City's ability to anticipate and plan for future costs. • Stakeholders such as the Morro Bay National Estuary Program and regulatory agencies with jurisdiction over aquatic habitat and endangered species must be consulted prior to planning an expansion at CMC. Their input could impact permitting requirements, as well as ability to redirect treated effluent in the future if a different direct reuse opportunity is identified (for example, the City of San Luis Obispo's attempts to expand its recycled water program). • A Rancho Colina facility that incorporates direct reuse of treated water with wet weather disposal through the ocean outfall (or via percolation ponds if appropriate sites are identified) presents the least discharge permit challenges and requires fewer onsite plant treatment facilities. • A recycled water program (including agreements with users, capital investment in pumping and pipelines, and ongoing operation and maintenance) that complies with Title 22 requirements will be required to implement this strategy and must be factored into the site selection decision. The current recommendation, in order to comply with the City Council's 5-year timeline, is to work on this long-term planning and design effort in concert with planning, design, and construction of the Phase 1 WRF project if the Rancho Colina site is selected.	Rancho Colina
I. Is the City's 5-Year timeframe goal achievable at the CMC site? What studies, permitting requirements, or logistical challenges may affect achieving this goal?	• Because of a variety of logistical constraints, it is not realistically possible to achieve the City's 5-year goal at the CMC site. • At the Rancho Colina Site, because of a willing and cooperative property owner, and the fact that neither the State nor the County would be involved in the ownership or operation of the facility, the City's 5-year goal may be achievable.	Rancho Colina
J. What would the City's role be in constructing and operating a regional facility at CMC? How will an interagency framework affect the City's ability to achieve its stated goals?	• The City would own a facility at Rancho Colina but would likely be a customer or non-majority partner at CMC. • For a CDCR-owned facility at CMC, the City and/or CSD would still be responsible for constructing and maintaining pipeline infrastructure to	Rancho Colina

Table ES-1. Summary of Report Findings

Key Issue or Question	Major Findings	Better Site
	and from the site. This complex arrangement could lead to conflict among the agencies relative to shared responsibilities in the event of a breakdown in the system. • Developing a project at the Rancho Colina site would allow the City to direct the project and meet stated City goals. Participating in a regional CMC project will turn over control to CDCR and unless City objectives align with those of CDCR, those desired project elements may not necessarily be included.	
K. Does either site have comparative advantage relative to securing possible funding (grants and loans) for a new regional reclamation facility?	• Since either project can be tied into water supply benefits, both could pursue similar grant and loan programs. • The Rancho Colina site could have a slight edge over the CMC Regional site since improving quality and supply of groundwater in the Morro Valley could address a disparity between existing safe yield and basin demands, reduce risk of seawater intrusion, and help export nutrients and salt from the Morro Valley groundwater basin. • CDCR could have access to various state funding sources for the Regional CMC site. However, since the plant upgrade would not address any agency priorities it is unlikely that they would assist with providing funds to upgrade the facility. Since the County would not take over the CMC WWTF, according to CDCR staff, County resources are not likely to be different than those that would be available to support a Rancho Colina site (e.g., coordination of Integrated Regional Water Management Plan-related funding).	Both sites are similar
OVERALL		**Rancho Colina**

2. Background

In 2013, the City of Morro Bay examined many potential sites for building a new WRF, which included the CMC site among six others. To inform that process, there were several public workshops and stakeholder interviews, which culminated in the release of the *First Draft Options Report* on October 29, 2013. That report found that the CMC site was the lowest ranked among the seven potential sites, but this ranking was based on the assumption that the City would be building a facility at that location on its own, without any participation from other potential partner agencies. This conclusion drew criticism from some, but was based on the fact that the City and Cayucos Sanitary District (CSD) were at that time pursuing separate paths toward locating a suitable site to replace the existing Wastewater Treatment Plant site, which had been rejected by the California Coastal Commission in January 2013. At that time, the CSD's publicly stated desire was to conduct an independent analysis of project alternatives that would be most beneficial to CSD ratepayers.

County Coordination with CDCR – Late 2013

The same day as the release of the *First Draft Options Report*, the San Luis Obispo County Public Works Department sent a letter to the California Department of Corrections and Rehabilitation (CDCR) indicating its interest in, and making an argument for, the potential transfer of the existing water and wastewater operations for the CMC facility from the State to the County (**Appendix A**). In that letter, the County stated its primary objectives in effecting this transfer would be to:

1. *Ensure reliability of service; and*
2. *Enhance emergency responsiveness*

In the first case, these objectives related to enhancing the County's ability to supply water within its existing distribution network. In support of the first objective, the County cited concerns with the State's ability to efficiently operate and maintain the facility. In the case of the second, the County argued that under County control, the facility would have access to various County water supplies in the event of an emergency, including Nacimiento water, rather than relying on State Water, which is the facility's current supply, and considered at-risk given the current drought situation.

The County also cited two secondary objectives:

1. *Capital project planning and implementation; and*
2. *Local needs and regulatory alignment*

In the case of the first of these, it was argued that under County control, the CMC operations would benefit from the County's AAA bond rating and its superior ability to secure funding for large capital projects.

Note that neither of the County's two primary objectives nor its first secondary objective had anything to do with the City of Morro Bay, but rather to enhance County operations and public works infrastructure. Another secondary objective, however, noted that as an ancillary benefit, it would be potentially beneficial to seek Morro Bay's and CSD's participation in an expanded wastewater treatment facility, primarily to lower costs to all participating agencies. Although no studies, cost sharing estimates, or related information was included to support this argument, as a concept it was stated that

this information would need to be provided as "part of the project alternatives analysis that Morro Bay and Cayucos will need to update." Thus, the County presumed that Morro Bay and Cayucos would—whether independently or together—prepare studies for a concept that may or may not be in either's interest relative to addressing either agency's goals, including those relative to minimizing costs and timing.

In this latter objective to include Morro Bay and CSD into this "regional facility" concept, the letter stated that this arrangement "may be preferable to both the Regional Water Board and the California Coastal Commission," although it should be noted that neither agency's board had taken a position on this issue at the time the letter was written, and have not since. In the *Fine Screening Analysis* (Dudek, November 2011), the CCC suggested potential support for a facility located in the Morro Valley, and did not comment on the CMC site.

The County acknowledged the potential difficulties in coordinating with CDCR to transfer control to the County and expand operations to include other agencies such as Morro Bay and CSD. The letter acknowledged that CDCR has not always benefitted from such transfers in the past, as well as other issues: 1) new regulatory mandates could increase costs to all parties involved; 2) there would be challenges in implementing a workable multi-agency framework; 3) the potential transfer of equipment and some CMC employees to the County, addressing equitable salary and benefits; and 4) various security issues related to CMC operations.

In summary, the letter presented the County Public Works Department's desire to take control of the CMC facility from the State, and to the extent it might be beneficial to include other agencies in this effort (such as Morro Bay and CSD), to do so. There were no supporting studies, data, or other documentation provided to assist CDCR in its evaluation of this proposal. What seemed certain was that if this transition were to occur, the County would need to lead the effort.

In that letter, the County stated that there was to have been a meeting with CDCR on November 8, 2013 to discuss this proposal further. It is not certain if this meeting ever took place. Then-Director Paavo Ogren, the author of the letter, has since left the County. Deputy Director Mark Hutchinson, who has since taken charge of this effort for the County, does not recall if this meeting ever took place (personal communication, email of October 15, 2014). Thus, it appears uncertain CDCR ever seriously evaluated this possibility, and it appears that neither the County nor the State followed up with each other in a meaningful way after that letter to further the discussion.

City Council Actions and Coordination with Partner Agencies, 2013-14

The City Council considered the *Options Report* at hearings on November 12 and December 10, 2013. The *Options Report* did not consider the regional concept at CMC, since it had just been suggested in writing by the County only days before.

At the November 12, 2013 Council meeting, one member of the public expressed support for the CMC site and its potential for expansion. Councilmember Christine Johnson, citing the County's October 29 letter to the State, suggested that City staff talk to County staff about this possibility. Councilmember Noah Smukler echoed this idea, suggesting an investigation of sharing costs at that site.

It was in that environment that the City Council adopted the *Second Draft Options Report* on December 10, 2013. Based on the evidence presented, the Council chose the Morro Valley as the highest-ranking location for citing a new WRF to serve the City, and confirmed its goals related to the WRF. It also directed staff to further investigate the top three sites in the Report, for the purpose of establishing the best overall location for a new WRF. In the *Second Draft Options Report*, the CMC site continued to rank last as a City-only facility, since circumstances relative to that site had not changed since October, other than the letter sent from the County to the State, apparently without response.

In February 2014, the City Council established the additional goal to complete the WRF within 5 years of selecting a specific site. The 5-year goal was driven by several factors, including: 1) the excessive cost of operating a 60+ year old plant that has deferred major process rehabilitation or replacement while a new plant has been in development; 2) the need to define a primary site so that a project description could be finalized as a first step to pursuing drought grant funding while it is still available; 3) a settlement agreement timeline which dictated completion of a new treatment facility by 2014; and 4) construction cost escalation, which continues to increase as the economy improves.

On March 21, 2014, City staff coordinated a meeting at the Regional Water Quality Control Board (RWQCB) that included key staff from County Public Works, RWQCB, and CSD to discuss the County's progress on the transfer of the CMC site to the County, and the possible investigation of including the City and CSD in a regional facility at that location. RWQCB Executive Officer Ken Harris led off the meeting indicating his support for the regional facility concept at that location, citing the possibility that funds might be available for this, and that future state regulations would encourage direct potable reuse of treated water that may result from such a facility. He also stressed the importance of defining the project description quickly to "get in line" early for funding opportunities that may be available as a result of the drought.

As he stated in his letter of October 29, 2013, Paavo Ogren suggested that such a facility could reduce costs for Morro Bay and CSD, but did not have any studies to support this assertion. The consensus at this meeting was that more study would need to be done relative to what it would take to expand the existing plant, but the County indicated it had neither the staff nor money to conduct this investigation. Both the RWQCB and the County agreed it would make sense for the County to operate such a facility, if it were to be built. The County did not report on any further discussions or negotiations with the State regarding a potential facility transfer at this meeting.

On May 13, 2014, the City Council chose the Rancho Colina site as its preferred option, based on the *Report on Reclamation and Council Recommended WRF Sites* (JFR Consulting, May 2014). At the same time, based on the March 21 meeting between the City, County, RWQCB, and CSD, it also directed further study of the regional concept at the CMC site. It also directed staff to coordinate with and seek financial contribution to this study from other interested agencies, including the County, RWQCB, and CSD.

Investigation of the CMC Site as a Regional Facility – Summer and Fall 2014

In May 2014, Paavo Ogren resigned from his position as the County's Public Services Director to become General Manager at Oceano Community Services District. No replacement was immediately named, but Deputy Director Mark Hutchinson took control of issues related to the CMC facility. In July 2014, Mark Hutchinson contacted CDCR regarding whether it was interested in pursuing the transfer of the CMC

facility to the County. CDCR did not indicate a high level of interest at that time. This was the first apparent contact from County staff to CDCR since October 2013.

During the summer of 2014, City consultants began investigating the CMC site for its regional potential and the City's possible participation in such a facility. The supporting studies that inform the investigation focus on a variety of issues, including cost, logistics, design, water rights, environmental concerns, financing, timing, and interagency coordination, the results of which are included in this report.

The underlying assumptions of this investigation are that: 1) the County has been working with CDCR to effect a transfer of the CMC site to the County; 2) CDCR is willing to do this; 3) that such a transition can occur in a timely manner to be consistent with the City's stated 5-year goal; and 4) that the County is willing and able to prioritize the design, construction and operation of this expanded facility in a manner consistent to meet the needs of the City and CSD. If any of these assumptions prove to be false, this would potentially eliminate the CMC site as a suitable location to meet the City's timing goals for a new WRF.

Interagency Coordination - October and November 2014

At the October 9, 2014 JPA meeting between the City and CSD, Ken Harris of the RWQCB again spoke in strong support of the CMC site as a regional facility. The County's Mark Hutchinson, however, while indicating support for the concept, admitted the CMC project is not a high County priority, and that there is neither sufficient staff nor money to move forward on this any time soon. As he noted, if the idea were to go forward in a short time frame, it would have to be done without the County's leadership. Note that according to the County's letter of October 29 to CDCR, this fact by itself could seriously hamper the potential regional use of this facility:

> *"Utilizing CMC facilities as a regional treatment plant has been part of recent discussion, but it is our understanding that CDCR cannot provide municipal services [emphasis added]. As a result, if this option is beneficial, then it is likewise our understanding that transitioning operations to the County will provide the ability for the treatment plant to serve local needs." (Letter from County Public Works to CDCR, 10-29-13)*

On October 15, 2014, City staff engaged in a discussion with CDCR's Jeff Stanley, who indicated that there have been no meaningful recent discussions with the County to effect a possible transfer of the CMC facility to the County, and that this is not something CDCR is particularly interested in at the State level. Even if a transfer process were to begin today, it would take at least 2 to 5 years to complete before any further work related to project design could begin. In addition, CMC just recently upgraded its facility to better accommodate its current users and address effluent permit violations from the past several years, so CDCR has no desire to further modify this plant in the near future.

On October 20, 2014, City staff coordinated a meeting among CDCR, RWQCB, and CSD for the purpose of coming to a clear understanding among all parties about the whether there is any realistic potential of a transfer of the facility from the State to County, and the potential for a regional facility to be built at that location. County Public Works Department staff was also invited to the meeting, but could not participate citing lack of time and available staff.

In that meeting, CDCR staff led by Associate Director Fred Cordano confirmed that there has been little coordination with the County in the past year, consistent with what is discussed above. Although not opposed to expanding its existing facility to accommodate other regional partners, it will not be actively pursuing this course of action, since it recently upgraded its facility to improve its existing operations to meet RWQCB requirements. At this point, CDCR's primary interest with the CMC site is the extent to which any action there could improve its ability to improve the reliability of its long-term water supplies. CDCR also confirmed that if a regional wastewater plant would go forward, it would retain ownership of the facility, even if the County were to assume operations. The County could not comment on this perspective, because no County staff were present at the meeting. In addition, CDCR stated that it would retain control of the facility only, and that it would be the responsibility of the various municipal partners to extend pipeline infrastructure to and from the site, including the construction, operation and maintenance of these offsite facilities (which would include the raw wastewater pump station, approximately 8 miles of force main, and approximately 8 miles of brine disposal pipeline).

CDCR also stated that there would be numerous internal logistical challenges for such a facility to move forward. For one, CDCR would not be the only state agency that would need to approve such a concept, which would also require review and approval from the State Department of General Services and State Public Works Board. This process would require extensive study and review, which CDCR staff suggested might take a year or more just to determine whether or not the State would be supportive of this concept.

In November 2014, City and CSD staff coordinated with CDCR staff to refine the logistics required to pursue the CMC site, and to develop a preliminary schedule if that site were chosen. In this process, CDCR confirmed their previous input relative to the steps needed. In addition, CDCR staff stated that unless the expansion of the CMC site could be shown to further CDCR's needs and goals beyond what is accomplished with the existing facility, funding assistance from CDCR would be highly unlikely.

4. Key Issues and Questions

The December 2013 *Options Report* compared the general suitability several sites, but did not consider the possibility of a regional facility in the analysis. The criteria for evaluating the regional question are related to, but somewhat different than, those included in the *Options Report*. The key questions and issues to address the regional issue are as follows:

A. What are the unique *regional* benefits associated with constructing a regional facility at the CMC site instead of a facility at Rancho Colina? How do these relate to the City's stated goals for the new WRF?

B. Are there potential cost savings for the City if it participates in a regional facility as compared to Rancho Colina? How will the construction and operation of ancillary facilities the City would need (such as a raw sewage conveyance pipeline from CMC to the City) affect the cost to the City? How do the capital costs compare, as well as the lifecycle costs, of both alternatives?

C. Are there unique water supply benefits for the City associated with the CMC site as compared to Rancho Colina? How does the future potential for direct potable reuse factor into this?

D. What are the water reclamation opportunities for agricultural use from a regional facility at the CMC site, and how do these compare to Rancho Colina?

E. Are there unique regulatory or logistical constraints that may limit potential water supply or reclamation benefits of a regional facility at the CMC site? How does that compare to Rancho Colina?

F. Are there physical site constraints at CMC that may limit project design flexibility? Will a regional facility likely be an expansion of the existing facility or will an entirely new facility be required?

G. What are the environmental issues that may be of concern to the Coastal Commission or the general public at the CMC site as compared to Rancho Colina?

H. How will the discharge limitations and design goals of the treatment facility differ at the CMC and Rancho Colina sites? How will the treatment facilities differ as a result?

I. Is the City's 5-Year timeframe goal achievable at either the CMC or Rancho Colina site? What studies, permitting requirements, or logistical challenges may affect achieving this goal?

J. What would the City's role be in constructing and operating a regional facility at CMC? How will an interagency framework affect the City's ability to achieve its stated goals?

K. Does either site have comparative advantage relative to securing possible funding (grants and loans) for a new regional reclamation facility?

5. WRF Sites Under Consideration

The analysis compares two sites relative to their suitability as a regional water reclamation facility. **Figure 1** shows the two sites in their regional context. These are described below.

CMC Wastewater Site

The CMC Wastewater site consists of two adjacent parcels. The existing CMC wastewater treatment facility is located on a small portion of a 249-acre parcel (APN 067-051-006), generally on the low-lying area south of Chorro Creek, about 5 miles east of the Morro Bay city limit along Highway 1. It is adjacent to, and on a separate parcel from, another 119-acre parcel (APN 073-221-028) located on the Cuesta College campus, which was the focus of the December 2013 *Options Report*. **Figure 2** shows this site in the context of existing development and surrounding land uses.

This site is adjacent to Chorro Creek, and is relatively close to other tributary drainages. With the exception of a small area in the western part of the site designated AG (Agriculture), the site is designated as PF (Public Facility) under the County's General Plan. The southerly parcel on the site includes an existing wastewater treatment plant that serves the California Men's Colony, while the northerly parcel is currently developed with several facilities, including a small airstrip and supporting buildings.

The State of California Department of Corrections and Rehabilitation (CDCR) owns the site. The current treatment plant and the majority of the site is within the Coastal Zone. The current facility is within the Coastal Zone. The study site is about 190 to 200 feet above sea level.

Rancho Colina Site

The 187-acre Rancho Colina Site (APN 073-085-027) is located about a mile east of the Morro Bay city limits, just north of and adjacent to Highway 41. The property also extends across the highway to the south, and is adjacent to Morro Creek (**Figure 3**).

With the exception of the southernmost portion of the property, the site is designated AG (Agriculture) under County jurisdiction. The southernmost portion of the site is designated a REC (Recreation). The site is entirely in the Coastal Zone.

The site is currently developed with several facilities, including a single-family home occupied by the property owner, and by an existing wastewater treatment facility constructed in 1971, which serves the nearby Rancho Colina residential community. The focus of this report is on a roughly 10 to 15-acre area in the lowest portion of the property, generally in the vicinity of the location of the existing WWTP, but could be expanded as appropriate. The study site is about 150 to 160 feet above sea level.

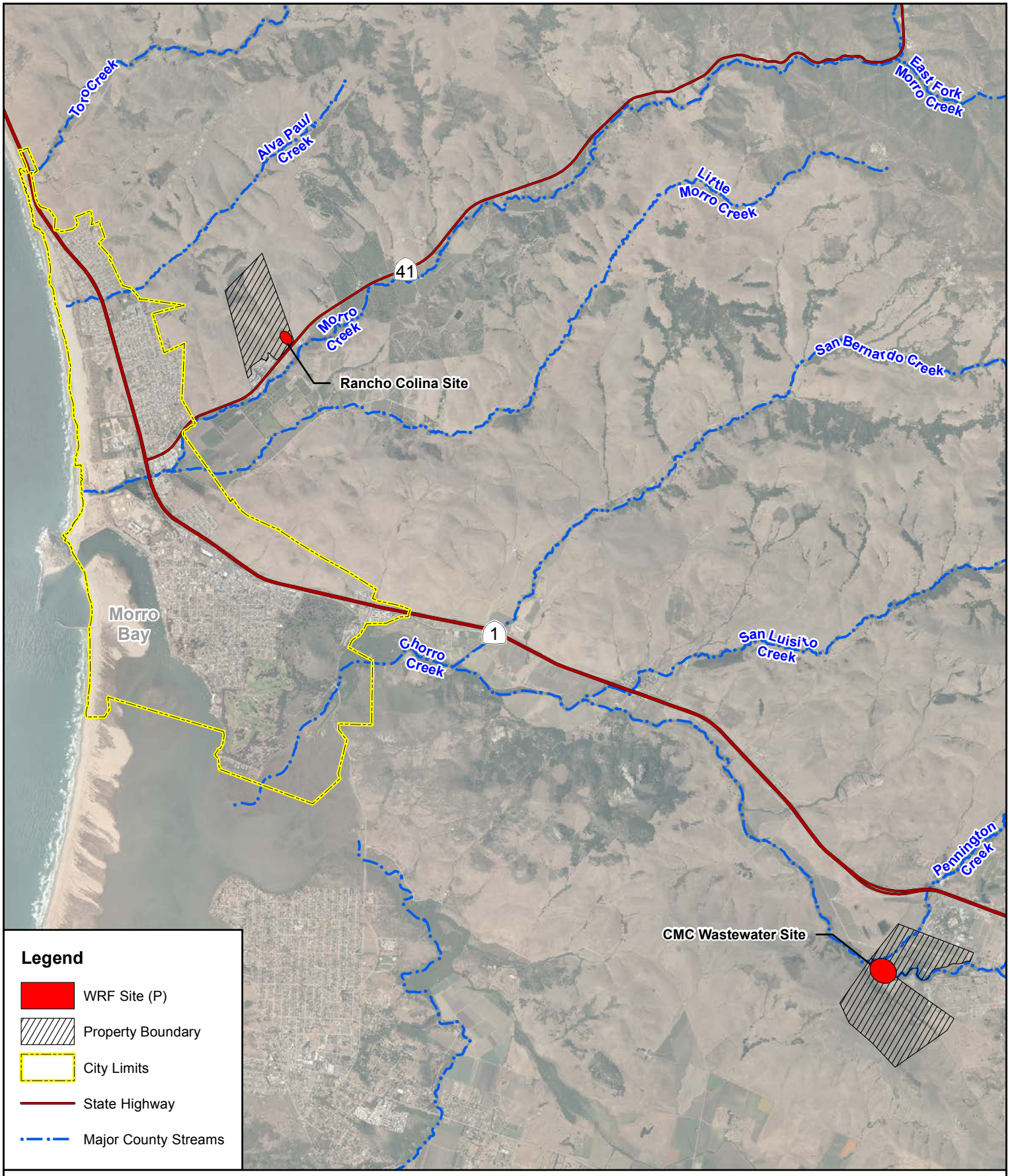

Figure 1: Overview of Study Sites

Note: Basemap data obtained from County of San Luis Obispo GIS

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1 in = 1 miles

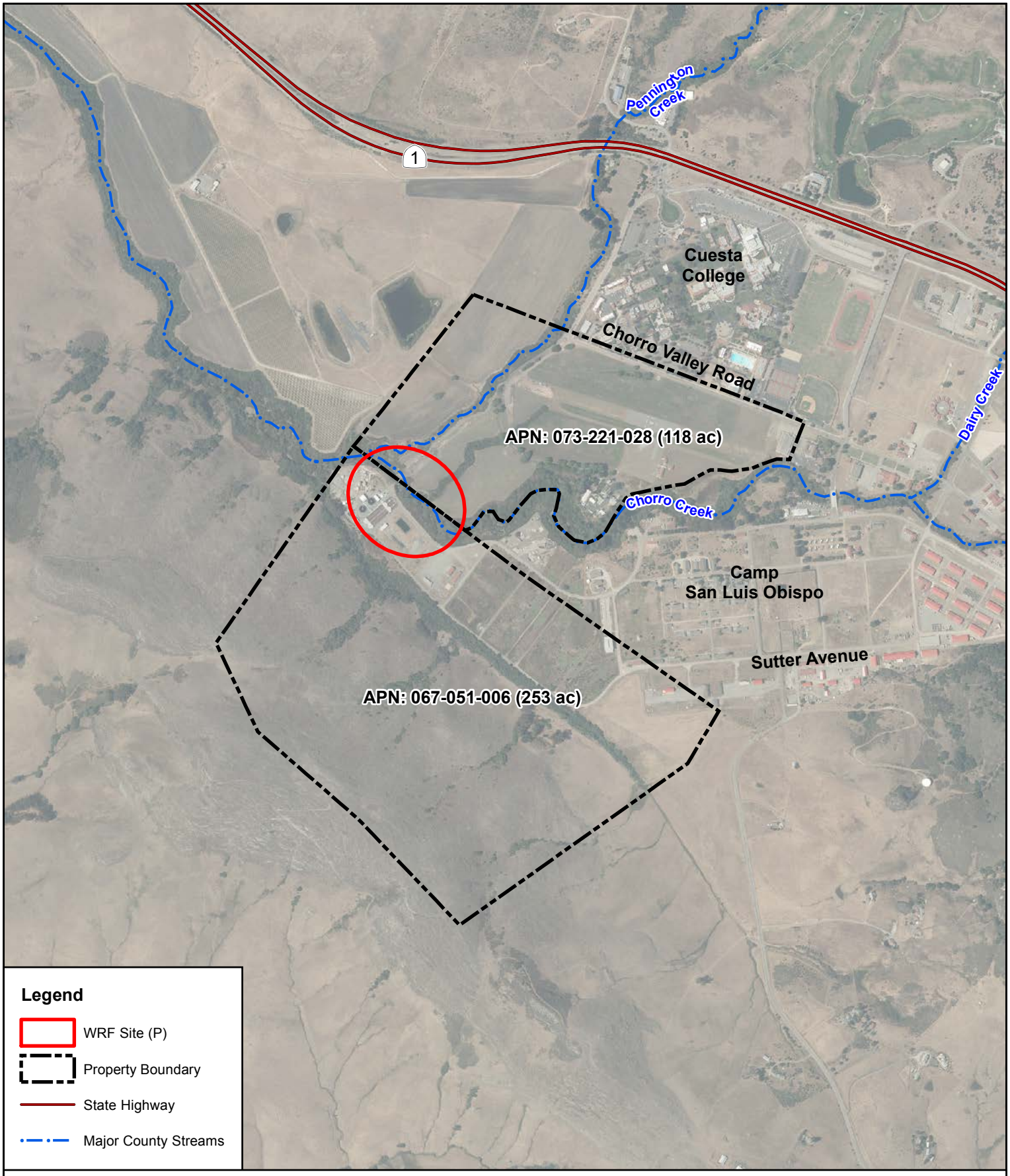

Figure 2: Regional CMC Facility

Note: Basemap data obtained from County of San Luis Obispo GIS

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1 inch = 1,200 feet

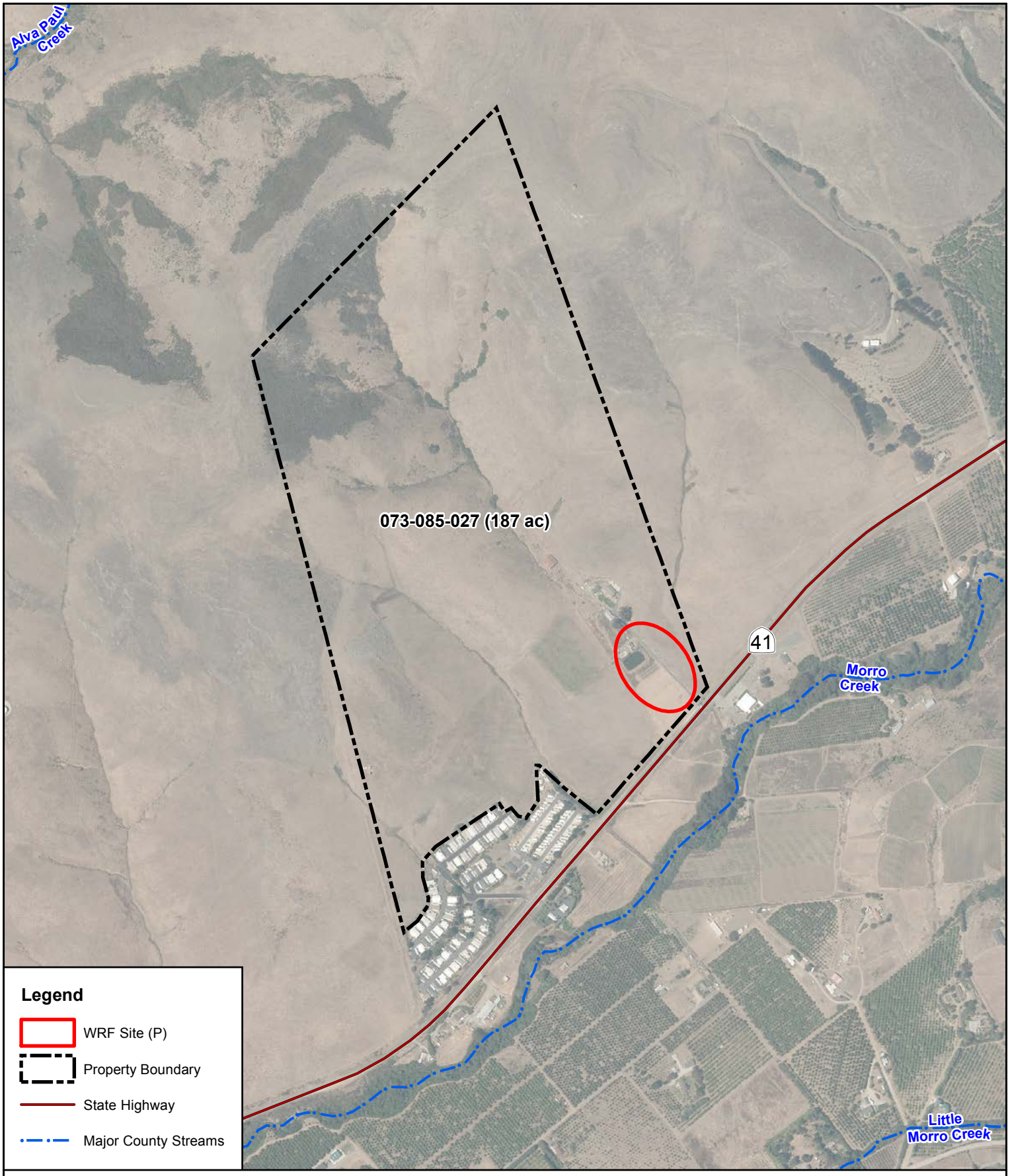

Figure 3: Rancho Colina Site

Note: Basemap data obtained from County of San Luis Obispo GIS

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1 inch = 800 feet

6. Comparative Site Analysis

The following analysis compares the two sites based on the key issues and questions described in Section 3 of this report.

A. What are the unique *regional* benefits associated with constructing a regional facility at the CMC site instead of a facility at Rancho Colina? How do these relate to the City's stated goals for the new WRF?

Why This Issue is Important. While the *Options Report* considered the issues associated with pursuing a City-only new WRF, other agencies have expressed the desire to develop a regional wastewater treatment facility if found to be beneficial to those agencies. This concept has the potential support of the Executive Director of the Regional Water Quality Control Board (RWQCB), and has most closely been associated with the CMC site, a location that was rejected in the Options Report if the City were to pursue the development of that site on its own. The merits of the CMC location as a regional site are addressed below.

In general, potential regional benefits would fall under one of three categories:

- *Administrative.* This concept addresses the potential benefits of pursuing a single multi-agency facility at the CMC site rather than two facilities—one at Rancho Colina, and the continuing use of the CMC site.

- *Regional Water Supply and Distribution.* While potential water supply benefits to the City are discussed in Section 6.C. below, this concept considers whether the location of either site offers an advantage relative to potential regional distribution of reclaimed water. Specifically, it explores whether either site is closer to existing pipeline infrastructure that would allow for possible out of basin water transfers that could serve others in the region beyond the City of Morro Bay.

- *Economic.* Does either site offer long-term regional economic advantages? Possible advantages might include being able to use reclaimed water on higher value crops. Another potential advantage would be cost savings in the construction, maintenance and operation of such a facility and related pipeline conveyance infrastructure relative to affected ratepayers. Finally, would a regional multi-agency facility at either location offer economic advantages relative to the ability to secure funding (grants and loans) to build and operate the facility?

Comparative Site Analysis. The following discussion compares the sites with respect to the suitability as a regional facility, and the relative advantages of each.

CMC Wastewater Site

From a locational standpoint, this site has potential as a regional facility, since it is centrally located with respect to several potential users, including the California Men's Colony, City of Morro Bay, Cuesta College, Cayucos, and various property owners in the Chorro Valley. Specific advantages associated with

the CMC site are discussed below:

Administrative. If the existing CMC facility were expanded to accommodate Morro Bay and Cayucos, it would allow for the existing Morro Bay/CSD WWTP to be retired without the need to find a brand new site, or to operate two facilities. In this case, all players would operate under a single permit at the CMC site, which would likely be a long-term administrative advantage for permitting agencies such as the RWQCB. In the short-term, developing a workable multi-agency framework to construct and operate the expanded facility may be potentially problematic. This would be particularly true if the State Department of Corrections and Rehabilitation (CDCR), who operates the current facility, does not take a substantial leadership role in the development and operation of such a facility. (See Sections 6.E. and 6.I. for further discussion of this issue.)

Similarly, if the facility is to be transferred to the County, it is uncertain whether the County would be willing or able to take on a leadership role in the near-term, since County staff has gone on record indicating that they do not have sufficient staff to lead this effort right now, and that other major infrastructure projects (such as the Los Osos Wastewater Treatment Plant) have higher priority.

That said, if these substantial obstacles can be overcome, in the long-term it may be administratively less complex to operate one facility instead of two.

Permitting from the RWQCB could be facilitated to some extent if this site were chosen. The RWQCB's Executive Officer has been consistently supportive of this location as a regional facility, citing the need to "look 75 years down the road." Although he has not defined what this means, he has implied that it refers to the concept that a state-of-the-art facility that serves multiple beneficiaries in the region would be preferable to outdated facilities that do not accomplish this goal. Although he has pledged his personal support and cooperation to facilitate permitting at this location, his board has not taken a position about the regional benefits of this site or any other, and it is unclear if that agency would be similarly supportive of any other site that accomplishes regional objectives consistent with RWQCB goals.

In a meeting with CDCR, City of Morro Bay staff, and CSD staff on October 20, 2014, RWQCB staff acknowledged that there appeared to be no obvious relative regional advantage of the CMC site over the Rancho Colina site, except to the extent that all potential partner agencies would be concentrated at a single location, which may potentially allow for some cost-sharing and would minimize the number of permits required. RWQCB staff also acknowledged challenges with expanding the CMC facility associated with meeting certain potential water quality objectives in Chorro Creek included in the existing permit for the existing CMC facility.

Regional Water Supply and Distribution. Some have expressed that the CMC facility would be relatively conducive to distributing reclaimed water throughout the region, as appropriate. The key question here is the relative proximity of the facility to existing pipeline infrastructure that could be used to convey treated water to potential users outside the immediate vicinity.

Two regional water conveyance systems operate in the vicinity of CMC site, Morro Bay, and Cayucos: the Whale Rock Reservoir Water System and Chorro Valley Turnout. Whale Rock Reservoir stores approximately 40,660 AF and is located approximately 1 mile east of Cayucos and is jointly owned by the City of San Luis Obispo, CMC, and Cal Poly. CMC and the City of Morro Bay have a mutual aid agreement

related to water resources in the event of an emergency. The City of Morro Bay can receive Whale Rock water that is treated at the CMC Water Treatment Facility and routed through the Chorro Valley Water System pipeline to the City's Kings Tank.

The Chorro Valley Turnout conveys State Water from the Coastal Branch of the State Water Pipeline to CMC, the County Operations Center on Kansas Avenue, Cuesta College, and the City of Morro Bay. It delivers 2,338 AFY during years when the State Water can allocate 100% of contractors' contracted amounts. The Turnout terminates at the City of Morro Bay's water system as shown on **Figure 4**.

Both pipelines are located approximately 1.5 miles to the northeast of the existing CMC WWTP on the north side of Highway 1. The Whale Rock pipeline passes through the City of Morro Bay near Highway 1 to Cayucos, approximately 1.5 miles southwest of the proposed Rancho Colina site, and the Chorro Valley Turnout terminates at the City's Kings Tank within City boundaries.

There are connections between the two pipelines. For example, Whale Rock water can be treated at the CMC Water Treatment Plant and conveyed through the Chorro Valley Turnout.

Since both proposed sites are located about 1.5 miles from the Whale Rock pipeline, and the Chorro Valley Turnout terminates at the City's water distribution system, either site could be incorporated into regional water delivery systems in the future if direct potable reuse is pursued.

Economic Issues. In addition to the cost of constructing and operating the facility (which is addressed elsewhere), there are several other issues that relate to the long-term economic health of the region. The first relates to long-term pumping costs. As a general concept, it would be cheaper to transport treated water long distances within the region than untreated wastewater, which includes solids that would require substantially more energy to pump, and will also require a higher level of pipeline maintenance to prevent clogging. Thus, a site that minimizes the distance between wastewater generators and the treatment facility would be preferable from the perspective of long-term economic and energy sustainability. Assuming that treated water would be potentially available throughout the region via an existing pipeline network, the relative economic advantage of locating a facility near to regional water users is comparatively less.

Issues Related to Pumping Costs

In a regional facility, residents of the City of Morro Bay would be the largest single group of wastewater generators; the City has a population of roughly 10,000, which does not include visitors to the City's hotels, shops and restaurants. Cayucos would contribute an additional population of about 2,500. The California Men's Colony has a population of about 5,000. While Cuesta College has a student population of about 11,000, this population is transient and effectively substantially less than that number if normalized to a full-time population. Thus, if the facility were to include users from each of these agencies, the greatest economic advantage would be if the facility were relatively closer to Morro Bay and Cayucos.

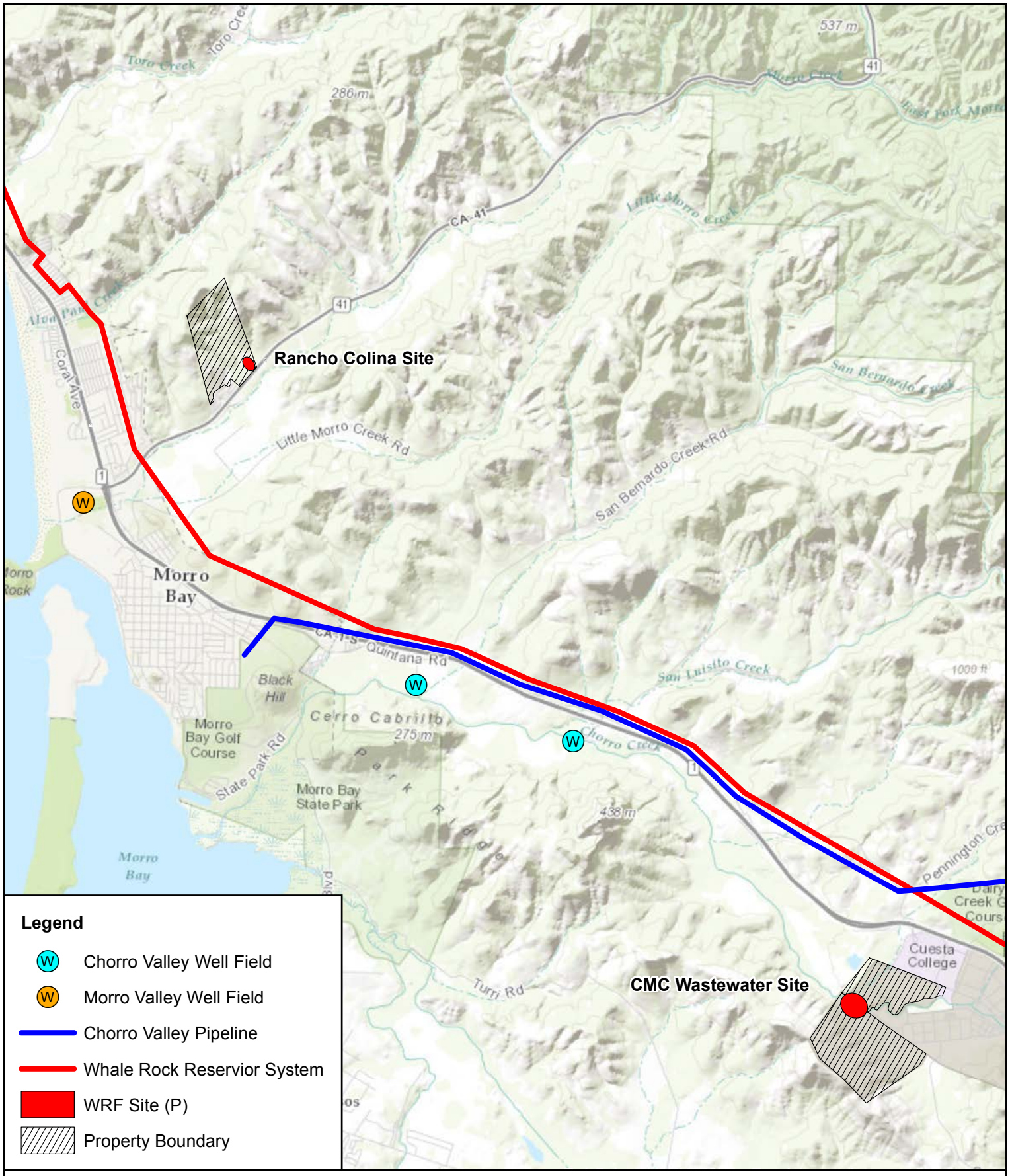

Figure 4: Regional Pipelines

Note: Basemap data obtained from ESRI

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1 in = 1 mile

Another way to put it, the CMC site is about 6 linear miles from Morro Bay, and over 11 miles from Cayucos—even farther from each when actual pipeline routes would need to be considered (the most feasible pipeline route from CMC to Morro Bay is along a proposed regional bike path about 8.1 miles). Thus, the majority of the permanent population that such a facility would serve would be anywhere from 6 to over 11 miles from the treatment facility. This would result in substantial and permanent pumping costs to serve these two communities if they were partners in a regional facility at this location.

On the other hand, the current CMC site makes logical sense to serve the population of the Men's Colony and Cuesta College, since it is relatively close to both facilities. It is adjacent to Cuesta College, and about 3 miles downstream of the Men's Colony. Adding the combined flows of Morro Bay and Cayucos, whose combined population is more than twice that of the Men's Colony, but whose location is also more than twice as far, would greatly minimize the economic benefits of such a multi-agency regional facility, at least to Morro Bay and Cayucos.

Agriculture and Crop Valuation

Another aspect of potential regional benefits are those associated with crop valuation. If a regional facility could provide reclaimed water to an area with the greatest acreage—and highest value—crops, there would be a potentially higher regional economic benefit. As noted in **Tables 1** through **3** (and summarized below), there is more high value agricultural acreage in the Morro Valley than in the Chorro Valley:

- Chorro Valley: 546 irrigated acres; 128 potentially irrigated acres
- Morro Valley: 1,080 irrigated acres

Development at the CMC site would be more beneficial to crops in the Chorro Valley than the Morro Valley, because of the proximity of the facility to nearby agriculture. However, there is less irrigated agriculture in the Chorro Valley, and crops there generally have a lower value per acre. In addition, there is a less acute need to find additional water to irrigate crops in the Chorro Valley as compared to the Morro Valley. In general, most mixed crops that might be grown in the Chorro Valley have a per acre value between $5,000 and $9,000, which is less than the per acre value of avocados ($9,549), which is the mainstay of the Morro Valley.

Mixed vegetable crops, such as what is typically grown in the Chorro Valley, range in value from $400 to $650 per ton. Broccoli and cauliflower are somewhat higher, ranging in value from $850 pre ton (cauliflower) to $987 per ton (broccoli). Typical mixed vegetable crop values range from $5,900 to $9,500 per acre, which for the most part are high volume crops ranging from 10 to 25 tons per acre. Based on the potential irrigable area of 674 acres, this translates to a potential crop value ranging from roughly $4 million to $6 million. Reclaimed water, if it can be applied to any or all of this acreage, would help realize this potential value. That said, it is not known what the cost of reclaimed water to the growers might be, which would offset some of the potential economic benefit of the reported crop values. In addition, as noted before, it is likely that since there is less demand for water related to agricultural irrigation in the Chorro Valley, the net potential economic benefit would be less.

Table 1 shows the values for irrigated crops that might be potentially grown in the Chorro or Morro Valleys:

Table 1. San Luis Obispo County Selected Crop Values, 2013

Crop	Tons/acre	Value/ton	Value/acre
Avocados	4.935	$1,935.00	$9,549.23
Bell pepper	14.044	$655.88	$9,211.18
Bok choy	15.654	$576/11	$9,018.43
Broccoli	6.041	$987.59	$5,966.03
Cabbage	24.652	$351.81	$8,672.82
Cauliflower	11.231	$849.79	$9,543.99
Lettuce, head	14.346	$366.54	$5,258.38
Lettuce, leaf	13.756	$493.07	$6,782.67
Napa cabbage	20.545	$412.19	$8,468.44
Oranges	14.293	$332.00	$4,745.28

Source: 2013 Annual Report, SLO County Department of Agriculture.

Rancho Colina Site

Like the CMC site, Rancho Colina has potential as a regional facility, since it is centrally located with respect to several potential users, including the City of Morro Bay and CSD, and various property owners in the Morro Valley. Specific advantages associated with the Rancho Colina site are discussed below:

Administrative. If the Rancho Colina site were designed as a regional facility to accommodate the flows from both Morro Bay and Cayucos, it would allow for the existing Morro Bay/CSD WWTP to be retired. Under this scenario, the existing CMC site would continue to operate and serve the Men's Colony, Cuesta College, and County Operations Center. In effect, the same agencies in the region would be served, but through two smaller regional facilities than one larger one at the CMC site. This arrangement would be potentially less advantageous to the RWQCB, who would need to permit two facilities rather than one. Setting aside the previously-described administrative obstacles to developing a multi-agency framework under the guidance of the State and County, it may be administratively less complex to operate one facility instead of two.

That said, RWQCB staff has acknowledged that there appeared to be no obvious relative regional advantage of the CMC site over the Rancho Colina site, except to the extent that all potential partner agencies would be concentrated at a single location, which may potentially allow for some cost-sharing and would minimize the number of permits required, noting further that there would be no land acquisition costs at the CMC site. RWQCB staff also acknowledged challenges with expanding the CMC facility associated with meeting certain potential water quality objectives in Chorro Creek included in the existing permit for the existing CMC facility. This latter challenge would not be an issue at the Rancho Colina site if a combination of reuse and discharge options include direct agricultural reuse, ocean outfall (during wet weather), and/or percolation ponds. A discharge to Morro Creek would have permitting constraints, but potentially less than a Chorro Creek discharge since that creek is an impaired water body under Section 303(d) of the Clean Water Act as discussed in other sections of this report.

Regional Water Supply and Distribution. Some have expressed that the CMC facility would be relatively conducive to distributing reclaimed water throughout the region, as appropriate. The key

question here is the relative proximity of the facility to existing pipeline infrastructure that could be used to convey treated water to potential users outside the immediate vicinity.

Please refer to the discussion under the CMC site. Since both proposed sites are located within 1.5 miles of the Whale Rock pipeline, and the Chorro Valley Turnout terminates at the City's water distribution system, either site could be incorporated into regional water delivery systems in the future if direct potable reuse is pursued.

Economic Issues. As noted in the analysis of the CMC site, a location that minimizes the distance between wastewater generators and the treatment facility would be preferable from the perspective of long-term economic and energy sustainability. Assuming that treated water would be potentially available throughout the region via an existing pipeline network, the relative economic advantage of locating a facility near to regional water users is comparatively less.

Issues Related to Pumping Cost
In a regional facility, residents of the City of Morro Bay would be the largest single group of wastewater generators; the City has a population of roughly 10,000, which does not include visitors to the City's hotels, shops and restaurants. Cayucos would contribute an additional population of about 2,500. The California Men's Colony has a population of about 5,000. While Cuesta College has a student population of about 11,000, this population is transient and effectively substantially less than that number if normalized to a full-time population. Thus, if the facility were to include users from each of these agencies, the greatest economic advantage would be if the facility were relatively closer to Morro Bay and Cayucos.

The Rancho Colina site is about a mile from the City limits, and about six miles from Cayucos (following road rights-of-way). This is substantially closer than the CMC site is to either agency, and thus the cost of pumping untreated wastewater from those locations would be substantially less. This would result in substantial and permanent pumping costs to serve these two communities if they were partners in a regional facility at this location.

Agriculture and Crop Valuation
As noted previously, there is more high value agricultural acreage in the Morro Valley than in the Chorro Valley:

- Chorro Valley: 546 irrigated acres; 128 potentially irrigated acres
- Morro Valley: 1,080 irrigated acres

Development at the Rancho Colina site would be more beneficial to crops in the Morro Valley than the Chorro Valley, because of the proximity of the facility to nearby agriculture. There is substantially more irrigated agriculture in the Morro Valley, and crops there generally have a higher value per acre, typically avocados, which have a reported average 2013 value of about $9,500 per acre. And, as noted above, there is higher agricultural demand for water in the Morro Valley, as evidenced by the fact that extensive groundwater pumping in this basin exceeds the basin's safe yield, which ultimately led growers to imported water in trucks, a practice that is no longer allowed.

Approximately 56 parcels ranging in size up to 450 acres include substantial irrigated portions, the largest of which is about 248 acres on a parcel owned by Morro Ranch Co., LLC. Most irrigated areas

within these parcels range from 10 to 35 acres, and are generally planted in avocados. In all, there are about 1,080 acres in the Morro Valley in current or recent irrigated production, the vast majority of which are within about 1.5 miles of the Rancho Colina site, and ranging from 0.1 to 3 miles from the City limits. A few irrigated areas are somewhat farther, up to about 4.5 miles from the City up Highway 41. This compares favorably to the Chorro Valley, where most growers that could potentially use reclaimed water range from 1.5 to 5 miles to the CMC site. Thus, the likely cost of reclaimed water if used for agricultural irrigation, based on the cost of needed pipeline infrastructure, would likely be less in the Morro Valley.

Based on the value of avocados, the 1,080 irrigable acres have a potential value of about $10.5 million, or roughly double the value of the irrigable crops in the Chorro Valley. Thus, the relative benefit of using reclaimed water for agricultural use can be best realized in the Morro Valley, and thus from the Rancho Colina site. The cost to growers for buying the reclaimed water would need to be factored out of the benefit. That said, the reclaimed water cost would likely be relatively lower in the Morro Valley, because the distance of extending needed infrastructure would likely be less, given the relative proximity of growers to the site in comparison to those in the Chorro Valley with respect to the CMC site.

It should be noted that avocados are the County's fifth highest cash crop, and about 20% of the total acreage is in the Morro Valley. Thus, it is a regional concern that in 2014, faced with an extended drought and lack of water, many Morro Valley growers severely cut back their avocado trees to reduce pressure on the trees. This effectively reduced their potential short-term productivity of these lands, which will not fully recover until there is a reliable long-term source of water. A new WRF at Rancho Colina could likely help restore this critical component of this important regional crop.

Summary and Conclusions. In general, either site can and should be viewed as having a potential regional benefit, since either can serve multiple agencies, and provide water reuse benefits to multiple parties. The specific findings are summarized below:

- The CMC's primary unique regional advantage is that it would combine all key agencies (State, County, Morro Bay, and CSD) into a single facility, thus reducing long-term administrative permitting issues with respect to the RWQCB. This benefit, however, presumes that the substantial administrative challenge of having the State and County lead this effort can be overcome. At the same time, RWQCB staff acknowledged that there would not be any other obvious unique regional benefit with respect to the CMC site.

- Rancho Colina's unique regional benefits have to do with economics, particularly with respect to agriculture. Avocados dominate the Morro Valley, and they are a significant geographic component of this an important regional crop. By making reclaimed water available to Morro Valley growers, the potential economic benefit is higher, especially in the context of the current situation, where growers have severely cut back trees due to lack of available water.

- There is no locational advantage for either site relative to their proximity to the existing regional water distribution network. However, from a cost standpoint it is more advantageous to locate the WRF closer to the primary wastewater sources (rather than the ultimate water users), and in that respect, Rancho Colina is much better.

- Overall, while both sites have good regional potential, the comparative unique regional benefits are better at Rancho Colina, especially when viewed through the lens that developing a workable multi-agency framework and expanded facility at CMC is a remote possibility over the next several years. In contrast, the regional benefits of a new plant at Rancho Colina could likely be realized sooner, while existing regional benefits at CMC (where the State and County are currently served) can continue as is.

B. Are there potential cost savings for the City if it participates in a regional facility as compared to Rancho Colina? How will the construction and operation of ancillary facilities the City would need (such as a raw sewage conveyance pipeline from CMC to the City) affect the cost to the City? How do the capital costs compare, as well as the lifecycle costs, of both alternatives?

Why This Issue is Important. Keeping costs low was by far the most commonly cited issue expressed at public workshops during the preparation of the *Options Report*. Key components of include capital outlay, operation and maintenance (O&M), and user costs. Unlike capital costs, O&M would be an ongoing cost through the life of the facility. But for many, the key concern is this: what would be the increased cost to ratepayers as reflected in their monthly bill?

Cost is a function of many factors, some of which are not necessarily site dependent. These include the availability of financing or grants, interest rates, and the design and construction of the WRF facility itself. These also include whether other partner agencies will be involved to share project costs and benefits. The construction of a regional facility, where costs are shared among multiple agencies, has the potential to provide cost savings in a way that a City-only facility would not. The degree of savings (if any) would be a function of the actual cost of such a facility, the maintenance responsibilities of partner agencies, and the nature of the cost-sharing agreement among those agencies.

Overall cost is sensitive to the location and configuration of the site, including the following:

- *Proximity to the City's existing wastewater conveyance system;*
- *Proximity to reclamation or water reuse opportunities;*
- *Site elevation (and intervening topography between the site and the City);*
- *Site size and configuration;*
- *Presence of environmental factors that may require special permitting;*
- *The relationship between the City and the property owner during negotiations related to site acquisition and/or use.*

Methodology. This analysis is based on a report analyzing the design and cost implications of a regional facility at the CMC site prepared by Carollo Engineers. The cost and design assumptions included in that report were then applied to the Rancho Colina site to allow for a direct comparison of the two locations. The full Carollo report is included as **Appendix B**.

Carollo Engineers determined the current capacity of the CMC wastewater treatment facility and the improvements required to serve both the City and District in addition to current customers. The analysis included review of CMC monitoring data, including historical flows and loading, process modeling, and development of a conceptual site plan and lifecycle cost for improvements to meet the current water quality limitations from the CMC WWTP WDR/NPDES permit. The CMC expansion analysis was developed with the following assumptions:

1. Permit limitations for water quality parameters (other than total daily loads due to higher flows) would not change. If treated effluent becomes a larger percentage of flow to Chorro Creek, or if new requirements discussed in the Effluent Disposal Analysis (LWA, 2014) are applied to the CMC effluent, parameters may be more stringent than currently required.
2. CDCR would be able to develop an agreement with the City and District to receive wastewater and to upgrade the existing CMC facility with financial support from these other agencies. CDCR staff expressed concerns that it may not be legal to use funds from other (non-state) agencies to upgrade bond-funded, state-owned public facilities.
3. The primary benefit would be streamflow augmentation and recharge of the City's Chorro Valley wells. Therefore, no recycled water facilities were identified for Chorro Valley users as part of the Carollo study. The potential for recycled water usage in the vicinity of CMC is discussed elsewhere in this report.
4. In order to provide a relative comparison to the cost of a Rancho Colina facility, the improvements would be completed within five (5) years from identification of a site. This is not likely due to the institutional constraints, property negotiation, easements, and various contracts that must be addressed prior to moving forward with this regional project, but the impacts of cost escalation are discussed later in this report.
5. The City and/or District would own the lift station and force main between the existing WWTP site and CMC. CDCR staff stated they would not own or operate any facilities outside of the CMC plant site under any condition.

MKN developed a similar conceptual layout and lifecycle cost opinion for a facility at the Rancho Colina site. The full MKN report is included as **Appendix C**. The Rancho Colina layout and cost opinion were developed with the following assumptions:

1. The Phase 1 WRF will produce tertiary treated and disinfected water suitable for unrestricted irrigation of food crops.
2. As directed by City staff, the facility will be reclamation ready but developing the full recycled water advanced treatment and delivery system for avocados and other salt-sensitive crops will require longer than a 5-year implementation schedule. Agreements with users, regional master planning, and design/construction of a recycled water delivery system would be developed over time as the Phase I facilities are completed and continue after commissioning of the new WRF.
3. A wet weather and brine disposal pipeline will be constructed from the Rancho Colina site to the existing plant outfall for discharge of brine (in the future) and unused plant effluent during startup of the Phase I facilities or during wet weather.

Comparative Site Analysis. The following discussion compares the site-oriented factors that relate to cost, and focuses on the key differences among the sites that might lead to potential savings at one site or another.

CMC Wastewater Site

Regulatory requirements and influent flows and loadings were reviewed to develop the criteria used to evaluate existing capacity at the CMC WWTP and size additional facilities that would be required to accommodate and treat wastewater from the City and District. The effluent from the CMC WWTP is discharged to Chorro Creek and regulated under the NPDES permit issued by the Central Coast Regional Water Quality Control Board. NPDES permit limits for two parameters that would be challenging to meet with a CMC regional facility, compared to a WRF at the Rancho Colina site, are the receiving water limitation of 500 mg/L of total dissolved solids (TDS) and the daily effluent limit of 10 mg/L for total nitrogen (TN). For this analysis, it is assumed that the surface water limit of 500 mg/L is applicable as an effluent limit, and no dilution credits would be allowed. The existing CMC permit (Waste Discharge Requirements Order No. R3-2012-0027/ NPDES No. CA0047856) references Clean Water Act **(**CWA) Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l). These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit. Based on discussions with RWQCB staff, these parameters are not likely to be relaxed. The City and District's current treatment plant influent has TDS concentrations that exceed 900 mg/L. In fact, the City's State Water has had levels exceeding 500 mg/L over the past several years based on discussions with staff.

The TN limit requires full nitrification and denitrification. This requires additional power cost and larger aeration basins than the system proposed at Rancho Colina, since nitrogen removal is not required for recycled water users.

A "whole-plant" simulator was created in BioWin to assess the capacity requirements for the existing oxidation ditches. A state-point analysis was performed to evaluate the secondary clarifiers, and the requirements for preliminary treatment, tertiary filtration, and disinfection were determined based on the projected peak hour wet weather (PHWW) flow rate. Details regarding the assumptions and modeling processes are provided in the Carollo report (**Appendix B**). **Table 2** summarizes the major components of the existing and additional (new) wastewater conveyance and treatment facilities that will be required to accommodate the additional flow at the CMC WWTP. The existing CMC WWTP facilities will stay in service.

Table 2. Summary of Conceptual Design Alternative for CMC WWTP Expansion

Unit Process	Conceptual Design Summary	
	Existing Facilities	**New Facilities**
Raw wastewater influent lift station	NA	(1) New pump station sized for a peak flow of 8 MGD containing 5 submersible, solids handling pumps, each rated for a peak flow of 2 MGD at 295 feet TDH.
Raw wastewater force main	NA	(1) 24-inch diameter DIP force main, 8.1 miles long
Screening system	(2) Existing 3/8-inch spacing mechanical bar screens with capacity of 2.73 MGD each; One (1) existing fine screen with 1/4-inch spacing and capacity for 5.6 MGD; One (1) existing spiral screenings washer-compactor with capacity for 86 CF/hr.	Three (3) new 1/4-inch spacing mechanical bar screens with capacity of 2.67 MGD each

Table 2. Summary of Conceptual Design Alternative for CMC WWTP Expansion

Unit Process	Conceptual Design Summary	
	Existing Facilities	**New Facilities**
Grit chamber	One (1) Existing aerated grit chamber (12 ft x 14 xf x 10 ft deep) with peak capacity of 5.6 MGD	(1) New aerated grit chamber (15 ft x 18 ft x 10 ft deep) with peak capacity of 8 MGD
Oxidation ditches	Two (2) Existing basins with 1.76 MG volume each (1.41 MG aerobic volume and 0.35 anoxic volume). Each basin contains two (2) surface aerators, at 60 HP and 125 HP, and (1) 15 HP anoxic mixer	Two (2) New basins matching the volume of the existing basins with two (2) 125 HP aerators on VFDs and one (1) 15 HP anoxic mixer in each.
Secondary clarifiers	Two (2) Existing 65-ft diameter circular clarifiers, 14-ft side water depth	Three (3) new 65-ft diameter circular clarifiers, 14-ft side water depth.
RAS/WAS pump station	One (1) Existing station with three (3) centrifugal pumps, each sized for a flow rate of 1.13 MGD	One (1) New pump station with (4) centrifugal pumps, each sized for a flow rate of 1.3 MGD.
Tertiary sand filters	Eight (8) Existing continuous backwash filters with 50 SF surface area each	Fourteen (14) New continuous backwash filters with 50 SF surface area each
Microfiltration/Reverse Osmosis system	NA	Microfiltration system with 2.5 MGD permeate capacity and 95% recovery, and a 25 gfd flux rate, and reverse osmosis system with 2.0 MGD permeate capacity, 95% recovery and a 11 gfd flux rate.
Disinfection system	Existing low pressure, high output UV disinfection system with two (2) open channels, each with a capacity of 2.6 MGD	New low pressure, high output UV disinfection system with three (3) open channels, each with a capacity of 2.67 MGD. Design UV dose of 100 mJ/cm^2
Solids dewatering centrifuge system	Two (2) Existing centrifuges with hydraulic loading rate of 200 gpm and solids loading rate of 4,600 ppd each;	Two (2) New centrifuges with hydraulic loading rate of 200 gpm each and solids loading rate of 5,000 ppd. Assumed operating cycle during maximum week is 35 hrs/ week.
Brine discharge pipeline	NA	Approximately 8.1 miles of 8-in PVC pipeline to existing MB/CSD WWTP ocean outfall

Table 3 below summarizes the planning level construction cost opinion. The costs for microfiltration-reverse osmosis system and the brine disposal have not been developed at this time and will need to be addressed. The costs are based on the Carollo report.

Table 3. Planning Level Construction Cost Opinion – CMC WWTP Expansion

No.	Description	Total
A.	**Treatment Facility**	
A1	General Conditions	$ 5,088,000
A2	Site Work	$ 1,272,000
A3	Yard Piping/Misc. Structures	$ 3,816,000
A4	Screening	$ 2,650,000
A5	Grit Chamber	$ 641,000
A6	Oxidation Ditches	$ 3,555,000
A7	RAS/WAS Pump Stations	$ 424,000

Table 3. Planning Level Construction Cost Opinion – CMC WWTP Expansion

No.	Description		Total
A8	Secondary Clarifiers		$ 2,116,000
A9	Tertiary Filters		$ 2,797,000
A10	UV Disinfection System		$ 3,072,000
A11	Biosolids Dewatering		$ 2,799,000
A12	Microfiltration-Reverse Osmosis		$ 15,020,000
A13	Electrical/Instrumentation		$ 4,167,000
Total Treatment Facility Direct Costs			***$ 50,883,000***
B.	**RWW Pump Station**		
B1	General Conditions		$ 204,000
B2	RWW Pump Station		$ 1,527,000
B3	Electrical/Instrumentation		$ 305,000
Total RWW Pump Station Direct Costs			***$ 2,036,000***
C.	**Offsite Pipelines**		
C1	General Conditions		$ 925,000
C2	RWW Conveyance Force Main		$ 7,512,000
C3	Not Used		-
C4	Brine Disposal		$ 1,738,000
Total Offsite Pipelines Direct Costs			***$ 10,175,000***
TOTAL PROJECT DIRECT COST			**$ 63,094,000**
D.	**Indirect Project Costs**		
D1	Not Used		
D2	Contingency	30%	$ 18,929,000
	Subtotal		$ 82,023,000
D3	General Contractor Overhead, Profit & Risk	18%	$ 14,764,000
	Subtotal		$ 96,787,000
D4	Escalation to Mid-Point		$ 18,786,000
	Subtotal		$ 115,573,000
D5	Sales Tax		$ 4,045,000
	Subtotal		$ 119,618,000
TOTAL ESTIMATED CONSTRUCTION COST			**$ 119,618,000**
D6	Engineering, Legal & Administration Fees	35%	$ 41,866,000
TOTAL ESTIMATED PROJECT COST			**$ 161,484,000**

Rancho Colina Site

The influent flows and loadings and the treated effluent quality requirements were estimated to develop design criteria for the treatment facilities. Unit processes were selected based on both meeting the design criteria and providing a functional equivalent to the Regional CMC option. For instance, the same secondary treatment process was used for both alternatives (oxidation ditches with secondary clarifiers). Mechanically assisted solids dewatering was assumed for the solids handling strategy for the Rancho Colina option to match the current approach at CMC WWTP. However, a different dewatering technology was chosen for the Rancho Colina option to provide a more cost-effective, but reliable solution (screw press dewatering system instead of centrifuges, which are currently used at the CMC WWTP). Once the unit processes were selected and sized, a conceptual site layout was developed and the requirements for the raw wastewater conveyance system were determined. The raw wastewater conveyance system will pump and convey wastewater from the City / District collection system to the new WRF site. It was assumed that the influent pump station would be installed at the City/District's existing WWTP and a force main would be routed generally along the north side of Atascadero Road and Highway 41. Additional details are provided in the MKN Report (**Appendix C**).

Table 4 below summarizes the major components of the conceptual design for the raw wastewater conveyance system and the new WRF treatment facilities.

Table 4. Summary of Conceptual Design Alternative for the Rancho Colina Site

Unit Process	Conceptual Design Summary
Raw wastewater influent lift station	One (1) 16-ft x 16-ft x 26-ft concrete wet well located at existing WWTP with three (3) 300-hp submersible pumps, each sized for a flow rate of 2800 gpm at 280 ft TDH
Raw wastewater force main	One (1) 18-inch diameter DIP force main, 10,000 linear feet with a 500-ft jack-and-bore section to cross Highway 1 right-of-way
Screening system	Two (2) Chain and rake screens, each with capacity for 8 MGD; One (1) spiral screenings washer-compactor with capacity for 33 CF/hr (batch mode)
Oxidation ditches	Two (2) 0.852 MGAL basins, each with two (2) 60-hp aerators (reserve space for potential future anoxic zone)
Secondary clarifiers	Two (2) 115-ft diameter circular clarifiers, 15-ft side water depth
RAS pump station	Two (2) 12-ft x 12-ft x 22-ft concrete wet wells, each with three (3) 125-hp submersible pumps, each sized for a flow rate of 3890 gpm at 40 ft TDH
Tertiary cloth disk filters	One (1) Filter unit in 8-ft x 22.5-ft x 11.75-ft concrete tank with eight (8) filter disks and total filter area of 672 SF (capacity for 5.6 MGD, peak day flow)
Disinfection system	Low pressure, high output UV disinfection system with three (3) open channels, each with a capacity of 2.67 MGD. Design UV dose of 100 mJ/cm^2
Solids dewatering screw press system	One (1) screw press dewatering system with 120 gpm sludge feed pump and polymer system with capacity for 2.8 dry standard tons in 24 hours. Assumed duty cycle of 12 hrs/day, 5 days/week.
Treated effluent pipeline	One (1) 18-inch diameter PVC force main, 10,000 linear feet with a 500-ft jack-and-bore section to cross Highway 1 right-of-way

Table 5 below summarizes the planning level construction cost opinion. The costs for property acquisition and easements have not been developed at this time and will need to be addressed. In addition, the costs to address sensitive cultural resources located between the existing WWTF and Rancho Colina on the Highway 41 corridor must be addressed as well.

Table 5. Planning Level Construction Cost Opinion – Phase I Reclamation-Ready Facility

No.	Description		Total
A.	**Treatment Facility**		
A1	General Conditions		$ 2,370,000
A2	Site Work		$ 2,370,000
A3	Yard Piping/Misc. Structures		$ 2,840,000
A4	Screening		$ 758,000
A5	Not Used		$ -
A6	Oxidation Ditches		$ 3,065,000
A7	RAS/WAS Pump Stations		$ 564,000
A8	Secondary Clarifiers		$ 3,693,000
A9	Tertiary Filters		$ 790,000
A10	UV Disinfection System		$ 3,072,000
A11	Biosolids Dewatering		$ 603,000
A12	Not Used		$ -
A13	Electrical/Instrumentation		$ 3,550,000
Total Treatment Facility Direct Costs			***$ 23,675,000***
B.	**RWW Pump Station**		
B1	General Conditions		$ 177,000
B2	RWW Pump Station		$ 1,327,000
B3	Electrical/Instrumentation		$ 265,000
Total RWW Pump Station Direct Costs			***$ 1,769,000***
C.	**Offsite Pipelines**		
C1	General Conditions		$ 531,000
C2	RWW Conveyance Force Main		$ 2,387,000
C3	Treated Effluent Pipeline		$ 2,395,000
Total Offsite Pipelines Direct Costs			***$ 5,313,000***
TOTAL PROJECT DIRECT COST			**$ 30,757,000**
D.	**Indirect Project Costs**		
D1	Property Acquisition		TBD
D2	Contingency	30%	$ 9,227,000
	Subtotal		$ 39,984,000
D3	General Contractor Overhead, Profit & Risk	18%	$ 7,197,000
	Subtotal		$ 47,181,000
D4	Escalation to Mid-Point		$ 5,922,000
	Subtotal		$ 53,103,000
D5	Sales Tax		$ 1,859,000
	Subtotal		$ 54,962,000

Table 5. Planning Level Construction Cost Opinion – Phase I Reclamation-Ready Facility			
TOTAL ESTIMATED CONSTRUCTION COST			**$ 54,970,000**
D6	Engineering, Legal & Administration Fees	35%	$ 19,240,000
TOTAL ESTIMATED PROJECT COST			**$ 74,210,000**

Summary and Conclusions. In order to compare the impact of site selection on the City and CSD's capital project costs, MKN developed two cost opinions for Rancho Colina:

- Rancho Colina Option A – Project alternative described in **Table 5**.
- Rancho Colina Option B – Project alternative described in **Table 5** with the following modifications to more closely resemble the unit processes included in the Carollo report for the Regional CMC Alternative, even though these components are not needed at Rancho Colina:
    - Aerated grit removal was added
    - Oxidation ditches were expanded to include denitrification
    - Biosolids dewatering operation was limited to 35 hrs per week resulting in the need for two screw press units

The same percentages were applied to direct costs to calculate general conditions, site work, yard piping/miscellaneous structures, and electrical/instrumentation for Option B and Option A. **Table 6** compares the three capital cost alternatives.

Table 6. Comparison of Planning Level Construction Cost Opinions at Rancho Colina and CMC

		Rancho Colina Option A	**Rancho Colina Option B**	**Regional CMC Expansion**
No.	**Description**	**Total**	**Total**	**Total**
A.	**Treatment Facility**			
A1	General Conditions	$ 2,370,000	$ 2,670,000	$ 5,088,000
A2	Site Work	$ 2,370,000	$ 2,670,000	$ 1,272,000
A3	Yard Piping/Misc. Structures	$ 2,840,000	$ 3,200,000	$ 3,816,000
A4	Screening	$ 758,000	$ 758,000	$ 2,650,000
A5	Aerated Grit Removal	$ -	$ 641,000	$ 641,000
A6	Oxidation Ditches	$ 3,065,000	$ 3,555,000	$ 3,555,000
A7	RAS/WAS Pump Stations	$ 564,000	$ 564,000	$ 424,000
A8	Secondary Clarifiers	$ 3,693,000	$ 3,693,000	$ 2,116,000
A9	Tertiary Filters	$ 790,000	$ 790,000	$ 2,797,000
A10	UV Disinfection System	$ 3,072,000	$ 3,072,000	$ 3,072,000
A11	Biosolids Dewatering	$ 603,000	$ 1,060,000	$ 2,799,000
A12	Microfiltration and Reverse Osmosis	$ -	$ -	$ 15,020,000

Table 6. Comparison of Planning Level Construction Cost Opinions at Rancho Colina and CMC

			Rancho Colina Option A	Rancho Colina Option B	Regional CMC Expansion
No.	**Description**		**Total**	**Total**	**Total**
A13	Electrical/Instrumentation		$ 3,550,000	$ 4,000,000	$ 7,633,000
Total Treatment Facility Direct Costs (Rounded)			***$ 23,675,000***	***$ 26,673,000***	***$ 50,883,000***
B.	**Raw Wastewater (RWW) Pump Station**				
B1	General Conditions		$ 177,000	$ 177,000	$ 204,000
B2	RWW Pump Station		$ 1,327,000	$ 1,327,000	$ 1,527,000
B3	Electrical/Instrumentation		$ 265,000	$ 265,000	$ 305,000
Total RWW Pump Station Direct Costs			***$ 1,769,000***	***$ 1,769,000***	***$ 2,036,000***
C.	**Offsite Pipelines**				
C1	General Conditions		$ 531,000	$ 531,000	$ 925,000
C2	RWW Conveyance Forcemain		$ 2,387,000	$ 2,387,000	$ 7,512,000
C3	Treated Effluent Pipeline		$ 2,395,000	$ 2,395,000	$ -
C4	Brine Discharge to Ocean Outfall		$ -	$ -	$ 1,738,000
Total Offsite Pipelines Costs			***$ 5,313,000***	***$ 5,313,000***	***$ 10,175,000***
TOTAL PROJECT DIRECT COST			**$ 30,757,000**	**$ 33,755,000**	**$ 63,094,000**
D.	**Indirect Project Costs**				
D1	Property Acquisition		TBD	TBD	$ -
D2	Contingency	30%	$ 9,227,000	$ 10,127,000	$ 18,929,000
	Subtotal		$ 39,984,000	$ 43,882,000	$ 82,023,000
D3	General Contractor Overhead, Profit & Risk	18%	$ 7,197,000	$ 7,899,000	$ 14,764,000
	Subtotal		$ 47,181,000	$ 51,781,000	$ 96,787,000
D4	Escalation to Mid-Point		$ 5,922,000	$ 6,499,000	$ 18,786,000
	Subtotal		$ 53,103,000	$ 58,280,000	$115,573,000
D5	Sales Tax		$ 1,859,000	$ 2,040,000	$ 4,045,000
	Subtotal		$ 54,962,000	$ 60,320,000	$119,618,000
TOTAL ESTIMATED CONSTRUCTION COST			**$ 54,970,000**	**$ 60,320,000**	**$119,618,000**
D6	Engineering, Legal & Administration Fees	35%	$ 19,240,000	$ 21,112,000	$ 41,866,000
TOTAL ESTIMATED PROJECT COST (ROUNDED)			**$ 74,210,000**	**$ 81,432,000**	**$161,484,000**

The main components of the design alternative for Rancho Colina that may lead to cost savings over a regional facility at the CMC WWTP include:

- A shorter raw wastewater force main: The Rancho Colina site is less than 2 miles from the existing WWTP, where the raw wastewater lift station would be constructed. The estimated length of the force main is 10,000 linear feet.

- Smaller raw wastewater lift station: Based on the elevation difference between the existing WWTP site and the conceptual layout for the Rancho Colina site, and anticipated friction and minor losses, three 300-hp pumps will be required for the raw wastewater lift station.

- Reduced redundancy requirements: Since a discharge pipeline to the ocean outfall will be required for wet weather disposal, it can also be used as an alternative discharge to recycled water to meet the Title 22 reliability requirements for filtration. After implementation of the recycled water project, if turbidity requirements for Title 22 disinfected tertiary recycled water are not met during operation, the off-spec water can be automatically diverted to discharge to the ocean outfall, which does not require filtration. Otherwise fully redundant filtration units are required to meet Title 22 reliability requirements, effectively doubling the capital cost for filtration.

- Relatively large "greenfield" site: The Rancho Colina site is relatively large site with a few existing facilities: a single-family residence, barn, some outhouses, and an existing packaged WWTP that serves the Rancho Colina community. However, there appears to be sufficient space for the City to choose among various technologies that will meet the selected design criteria. Unlike the CMC WWTP, where it may make operational and economic sense to match technologies for the unit processes, there are more options available at the Rancho Colina site.

- Less stringent effluent quality requirements: The anticipated effluent quality requirements for the Rancho Colina site allows for conventional secondary treatment, without nitrogen removal, whereas nitrogen removal is required under the CMC WWTPs existing permit, requiring generally larger and additional secondary treatment equipment. Additionally, salts removal will be required at the CMC WWTP to meet TDS limits for the receiving water (Chorro Creek), further adding to the treatment plant costs.

Also please refer to **Table 11** in Section 7 of this report, *Summary and Conclusions*, for a locational comparison of all water resource-related issues, including those discussed in this portion of the analysis.

C. Are there unique water supply benefits for the City associated with the CMC site as compared to Rancho Colina? How does the future potential for direct potable reuse factor into this?

Why This Issue is Important. Until the late 1990s, the City of Morro Bay had relied completely on groundwater from wells in both the Chorro Valley and Morro Valley. Increasing limitations on the use of groundwater, including a Regional Board-mandated requirement to maintain a minimum streamflow in Chorro Creek, the potential for seawater intrusion, and contamination of a City well in the Morro basin, prompted the City to acquire State Water in the late 1990s. Today, except for the limited use of groundwater wells as needed, and the potential for a small amount of water from its desalination plant, the City of Morro Bay is currently almost completely dependent on State Water for its long-term supply. The City typically receives 95% of its supply from State Water and the remainder from Morro Valley wells that are treated for nitrate removal at the City Water Treatment Plant. Now with the reliability of State Water in question, and historic limitations on the use of groundwater, finding new sources to augment existing supply supplies is highly desirable. A new WRF is potentially a large part of

this solution, either by creating a new source of water that can be reclaimed for non-potable uses such as agriculture and landscaping, and/or potentially by recharging groundwater basins to make existing City wells more reliable.

A new WRF in either the Morro Valley or Chorro Valley have some potential opportunity to help augment existing water supplies. However, the nature and degree of potential opportunities in these areas differs. In the Chorro Valley, existing City wells could potentially be enhanced if a new WRF is located there. However, there are more agricultural reclamation opportunities in the Morro Valley. In terms of potential direct reuse of water, should regulations change to allow this to occur, both Chorro Creek and Morro Creek offer opportunities in this regard.

This section explores issues related to augmenting the City's existing water supply, either through groundwater recharge, or potential direct reuse of water discharged to creeks.

In order to analyze and present a comparison of the water supply benefits that are unique to both sites, Cleath-Harris Geologists (CHG) performed an analysis of the maximum water supply benefit at each site. The full report is included in **Appendix G**, and forms the basis of the analysis included below.

To address the relative cost for this water supply on an AFY basis, the JFR project team also developed a preliminary cost for delivery of that water (including wastewater conveyance, treatment, discharge or conveyance of treated effluent, and potable water treatment facilities. The objective of potable water treatment is match the City's current water quality and to comply with state drinking water regulations.

The following assumptions were required to analyze the water supply benefit from discharge to Chorro Creek at the Regional CMC Site:

1. *The City will need to obtain the rights from SWRCB to pump a quantity equivalent to the City's discharge at the CMC outfall.*
2. *The resulting increase in streamflow will be available at the Chorro Creek wells for extraction. In other words, it is assumed percolation through the stream bed in the vicinity of the City wells will eventually reach the City wells and not travel elsewhere.*
3. *Both the City and CSD will discharge at the Regional CMC Site and water from both agencies will be available for the City's use.*
4. *Future regulations related to contaminants of emerging concern (CMCs) in wastewater will not affect the City's ability to discharge at CMC and draw reclaimed water through the Chorro Valley wellfields.*
5. *Opportunities for direct reuse of wastewater by agricultural users in the Chorro Valley were not considered in this analysis, but are discussed in Section 6.D of this report.*

The following assumptions were required to evaluate the maximum benefit to the City's Morro Valley wells via direct delivery of reclaimed wastewater, reduced pumping by upstream agricultural users, and in-lieu recharge of the City wells.

1. *Pumping by agricultural users will be reduced at a 1:1 ratio to recycled water delivery, and agricultural users will provide their own reservoir storage or onsite water management in exchange for low water rates.*
2. *The Cleath-Harris study assumed that only the City will convey wastewater to Rancho Colina,*

which is a worst case assumption from a City benefit perspective. The CSD is assumed not to be included since they had concluded the Regional CMC Site was their preference. That said, the Cleath analysis was expanded by the JFR project team to include CSD, in order to evaluate the impact of partnering with CSD to develop a regional facility.

3. *No seasonal reservoir storage or percolation would be provided. The benefit will be higher if seasonal storage or percolation is available during wet weather months when irrigation demand is limited.*
4. *Direct discharge to Morro Creek was not considered, but could also increase the water supply benefit. Less information is available on the relationship between Morro Creek streamflow and water availability at the Morro Valley wells than at Chorro Creek, since the City has been monitoring flow at Chorro Creek for over 4 years. However, it is known that Morro Valley has an area downstream of Rancho Colina that would allow percolation into groundwater.*

Comparative Site Analysis.

CMC Wastewater Site

In order to evaluate the maximum benefit of water supply from streamflow augmentation at the CMC Site, the existing availability and quality of groundwater and projected impact of adding new City and CSD flows is discussed below.

Availability and Quality of Groundwater. The CMC Site discharges upstream of the City's Chorro Valley wellfields. Eight wells located in two fields were noted as having TDS levels that can range from 470 to 1,200 mg/L (2005 Draft UWMP) and nitrates that exceed state drinking water regulations. Periodic high iron and manganese levels were also noted. The Chorro Valley wells are located approximately 3 miles from the City's water treatment plant and cannot feed directly into the distribution system without nitrate reduction in order to comply with drinking water regulations. A nitrate removal facility will be required to utilize the Chorro Valley wellfields and is discussed in Section 6.B. of this report.

The City can only pump water from Chorro wells when creek levels reach 1.4 cubic feet per second (1.4 CFS) and can only extract 1,142.5 AFY according to their water supply permit.

Projected Water Supply Impact of Streamflow Augmentation at CMC Regional Site. CHG applied combined City and CSD flows to historical flow records along Chorro Creek in order to assess potential benefit of increased flows during normal years and also during the past few years of drought. CHG used both a constant monthly delivery rate based on 1.5 MGD average annual flow (1,680 AFY) and varied monthly flows to determine how seasonal plant flow variations would impact the availability of water. Based on the assumptions discussed earlier in this report, CHG concluded the following:

- Assuming 1,680 AFY of wastewater is treated and discharged to Chorro Creek, a long-term average, maximum benefit of 560 AFY would be available at the Chorro wells.

- Up to 1,000 AFY would be available during drought years.

- The percentage of available discharge is expected to vary from 505 AFY during normal years to a drought year "maximum" of 950 AFY.

Rancho Colina Site

In order to evaluate the maximum benefit to the City's water supply from direct reuse of wastewater from a Rancho Colina site by upstream agricultural users, the existing availability and quality of groundwater, and projected impact of new City flows were considered as discussed below.

Availability and Quality of Groundwater. Four active City wells are located within the Morro Valley groundwater basin. Since nitrates exceed state drinking water regulations, the wells have been directed to the City's Water Treatment Plant, which performs reverse osmosis treatment. The Draft 2005 Urban Water Management Plan noted that seawater intrusion had occurred in the past within the basin. The City's Morro Valley wells are located closer to the ocean than the Chorro Valley wells, increasing the risk of seawater intrusion if they are pumping when groundwater levels are already low.

The City's water supply permit limits extractions to 581 AFY at a limit of 1.2 cfs.

Projected Impact of New City Flows. CHG analyzed the amount of "in-lieu" recharge to the City's wells that would be available if upstream agricultural users receive direct deliveries of recycled water from the Rancho Colina site. They concluded the following:

- Assuming a 1.1 MGD average annual flow from the Rancho Colina site, excluding CSD, approximately 1,265 AFY of reclaimed wastewater would be available. If CSD were included, this would increase to 1,680 AFY.
- Over 1,500 AFY of demand is available within the Morro Valley upstream and downstream of the Rancho Colina site based on water usage factors for avocados that were developed in the San Luis Obispo County Master Water Plan.
- Due to lower demand during wet weather months, only 1,105 AFY would be applied for agricultural users without CSD and 1,330 AFY would be available with CSD.
- Assuming users apply the full 1,105 AFY without CSD, and discontinue pumping Morro Valley groundwater by the same quantity, the downstream benefit would be 320 AFY during drought and over 900 AFY during normal to wet years. With CSD, 1,330 AFY would be applied with a drought benefit of 545 AFY and normal to wet year benefit of 1125 AFY.

As shown above, adding flows from CSD would help meet dry weather irrigation demands and would increase the amount of water that could be directly reused. This would also increase the amount of water available at the City wells.

If streamflow augmentation were pursued, seepage through Morro Creek would recharge the Morro Valley groundwater basin and increase the flow that could be extracted from the City wells. The level of benefit to City wells would be similar to that at the Regional CMC Site during drought conditions.

Another important consideration at this location is that in-lieu recharge or direct streamflow augmentation will likely reduce seawater intrusion.

Summary and Conclusions. The following summarizes the major points from the analysis presented above:

- Overall, both sites have a similar level of benefit to City water supplies.

- The CMC Site presents the highest total benefit (950 AFY) to the City water supply during a drought year. During normal and wet years, over 60% of the City and CSD's treated wastewater would continue to flow to the ocean.

- The Rancho Colina Site presents the highest water supply benefit (900 AFY) to the City water supply during normal and wet years. Should the CSD choose to become a customer of the City, there could be an additional 225 AFY available resulting in a total of 1,125 AFY.

- The Rancho Colina Site with direct agricultural reuse and wet weather disposal through the ocean outfall presents the least effluent permitting challenges.

- If streamflow augmentation at Morro Creek were pursued, the permitting challenges and future regulatory risk would likely be less than those at Chorro Creek according to the Discharge Options report (LWA, 2014). The amount of water supply benefit would be similar to that at the CMC Site.

Table 7 summarizes the approximate cost per AF for the long-term water supply benefit estimated by CHG including the Phase 1 (treatment) facilities and Phase 2 (reclamation) facilities. **Appendix D** includes the assumptions that were applied to this evaluation:

Table 7. Comparison of Total Estimated Cost per Acre-Foot of Recovered Water

	Rancho Colina (w/o Cayucos)	Rancho Colina (w/ Cayucos)	Regional CMC Facility
Total construction cost, Phase 1 and 2 ($MM)	92.7	101.9	167.3
Total annual cost, Phase 1 and 2 ($MM/YR)	7.4	8.2	See Appendix D
Water Supply Benefit (AFY)	895	1160	515
Percent Recovery as City Water Supply (Avg Yr)	71%	69%	31%
TOTAL COST PER AF RECOVERED WATER ($/AF)	**$9,000**	**$8,000**	**Over $20,000**

Please refer to **Table 11** in Section 7 of this report, *Summary and Conclusions*, for a locational comparison of all water resource-related issues, including those discussed in this portion of the analysis.

D. What are the water reclamation opportunities for agricultural use from a regional facility at the CMC site, and how do these compare to Rancho Colina?

Why This Issue is Important. The City's current Local Coastal Plan/General Plan requires a new wastewater facility that meets a minimum goal of reclaiming at least 770 acre-feet per year (AFY) of wastewater to offset agricultural or golf course water use, consistent with relevant provisions of the Coastal Act. As stated in Land Use, Open Space and Conservation Element Program 80.1:

> *The City should implement the proposed wastewater reclamation program to provide an additional 770 acre-feet per year of water supply for agricultural and golf course purposes, thereby reliving the groundwater basin of this demand. Although not presently contemplated, the reclamation program could be expanded to provide additional quantities of reclaimed wastewater.*

Program 80.2 calls for new facilities that implement reclamation goals:

> *The City should provide recharge facilities to collect storm water which normally flows out to sea, for recharge to groundwater basin. Such recharge programs would allow storage of additional quantities of water in the groundwater basin each year.*

While this program does not directly require recharge of treated wastewater, developing percolation ponds (similar to stormwater retention facilities) would be another approach for recharging groundwater. Percolation requires appropriate site conditions that would allow treated wastewater to migrate to deep aquifer storage without being diverted to the ocean or surface waters by the presence of an impermeable soil layer (e.g., clay or bedrock). At this time, an appropriate site has not been identified but it is assumed that potential percolation facilities could be identified during development of the City's Master Reclamation Plan.

Morro Bay is currently mostly dependent on State Water for its long-term supplies (see discussion of groundwater issues in Item 6.B. above), so finding new sources to augment existing supplies is highly desirable. A new WRF is potentially a substantial part of this solution, either by creating a new source of water that can be reclaimed for non-potable uses such as agriculture and landscaping, or potentially by recharging groundwater basins to make existing City wells more reliable.

Methodology. This section describes the assumptions in the analysis and recycled water opportunities available in the region.

Potential Recycled Water Opportunities

The primary uses for recycled water, as discussed in this report, include:

- Direct reuse for irrigation or other applications; and
- Indirect reuse through either streamflow augmentation or groundwater recharge.

The following describes potential sites for the application of recycled water in Morro Bay and the surrounding region. This is based on both a literature review and original research. Our team, led by Michael K. Nunley Associates (MKN), reviewed previous recycled water studies for the City of Morro Bay (City) and Cayucos Sanitary District (CSD) Wastewater Treatment Plant (WWTP), including:

- *Cayucos/Morro Bay Comprehensive Recycled Water Study*, Carollo Engineers, October 1999
- *2012 Recycled Water Feasibility Study*, Dudek, Draft March 9, 2012

These reports investigated the feasibility of implementing a recycled water program. Both studies included identification of potential water reuse opportunities in the Cayucos and Morro Bay areas and review of the water demands and water quality requirements.

In addition, our team conducted original research, reviewing parcels in both the Morro and Chorro Valleys for their potential for irrigated agriculture.

In general, the use of reclaimed water in the region centered on Morro Bay area could be applied to one or more of the following:

- Irrigated Agriculture
- Streamflow Augmentation in Creeks
- Landscaping, Parks, and Golf Courses
- Groundwater Recharge

Each of these has its own water quality requirements, which are summarized in the December 2013 *Options Report*. Of the sites described in the May 2014 *Report on Reclamation*, over 90% would require wastewater treatment to disinfected tertiary levels, including all agricultural irrigation sites; in addition, salt-sensitive crops such as avocados would also need advanced treatment for salt removal. For this report, we intend to focus on the agricultural irrigation opportunities, which comprise most of the sites.
In summary, there are substantial reclamation opportunities in region surrounding the City, mostly concentrated in the Morro Valley in the form of irrigated agriculture (primarily avocados, and also some row crops), but there are also some opportunities in the Chorro Valley as well. There are important though less plentiful opportunities within the City itself as well as in Cayucos, primarily related to landscaping and parks.

Comparative Site Analysis. The following discussion compares the reclamation opportunities related to irrigated agriculture at the two sites.

CMC Wastewater Site

One of the major potential customers that has been identified near CMC is the County's Dairy Creek Golf Course. The CMC WWTP has delivered an average of 188 AFY to Dairy Creek Golf Course over the past 10 years, according to County staff. Based on discussions with County staff, the total water usage at Dairy Creek Golf Course is approximately 250 to 275 AFY. Therefore, only an additional 62 to 87 AFY could be used.

The May 2014 *Report on Reclamation* noted that there were only two major parcels in the Chorro Valley that provided potential targets for agricultural reclamation. That report generally focused on land closer to the City, because the nearest site under consideration in that report (Tri-W) was at the eastern edge of the City, rather than several miles up the valley. In that case, it made little sense to focus on reclamation sites that required extensive infrastructure to be extended upstream and away from the City.

Now, because of the CMC site's relative upstream location compared to what had been analyzed before, it makes more sense to more fully consider the lands between that site and the City.

The CMC site is approximately 6 linear miles from the City of Morro Bay. Chorro Creek traverses the valley between the site and the City. In addition to the two large parcels previously identified (owned by Morro Bay Ranch and the State of California), other portions of this area are within active agricultural use, which present potential opportunities for the use of reclaimed water. In general, these areas

include smaller parcels, or small portions of larger parcels, most of which include active irrigated areas less than 15 acres. One parcel includes about 30 active acres, and another might include about 68 acres. These parcels are located in the general vicinity between Canet Road/San Luisito Creek Road and San Bernardo Road, about 3 to 4 miles down the valley from the CMC site, and about 1.5 to 2.5 miles up the valley from the eastern City limit. These reclamation opportunities are at generally lower elevation than the CMC site (which is about 190 feet above sea level), although some irrigated agriculture up Nicola Ranch Road is at relatively higher elevation (250 to 300 feet).

In all about 545 acres in the Chorro Valley downstream from the CMC are in active irrigation, and have the highest potential for reclamation.

There are also many other properties in the Chorro Valley that are not in agricultural use, but are relatively flat, open, and otherwise exhibit characteristics that make them potential reclamation targets if they were cultivated. This include about 17 smaller parcels (2 to 20 acres in size) either near Chorro Creek Road, San Bernardo Creek Road, Canet Road, or San Luisito Creek Road. Within these parcels, about 128 acres appear suitable for irrigated agriculture. However, many have existing constraints, including onsite residences, small parcel sizes, or in the case of two larger parcels near Chorro Creek owned by the State Department of Fish and Wildlife, may not be suitable for agriculture because of their potential as habitat mitigation sites.

Tables 8 and **9** summarize the potential agricultural reclamation opportunities in the Chorro Valley, which are shown on **Figure 5**.

Table 8. Chorro Valley Irrigated Agriculture (or fallow irrigated ag)

Owner	Parcels	Total Acres	% Irrigated	Irrigated Acres
Morro Bay Ranch	1	303.67	85.0%	258.12
State of California	1	438.93	32.0%	140.46
Roy Jensen *	1	9.78	100%	9.78
Morro Bay Ranch *	1	309.13	5%	15.46
Edward Perry *	1	57.11	5%	2.86
Edward Perry *	1	60.10	50%	30.05
Robert Armstrong *	1	32.13	25%	8.03
State of California (Fish and Wildlife) *	1	252.01	5%	12.60
John Maino *	1	85.74	80%	68.59
TOTAL	**9**	**1,548.60**	**35.3%**	**545.95**

** Previously unreported parcels are in the vicinity of Canet, San Luisito Creek, or San Bernardo Creek Roads. These were not shown before because they were upstream from the Tri-W site, which was examined in the May 2014 siting study, but are downstream from the CMC site.*

Table 9. Chorro Valley Parcels Not in Crop Production, but with Irrigation Potential

Owner	Parcels	Total Acres	% Irrigation Potential	Potential Irrigated Acres
Parcels near Chorro Creek Road [1]				
John Pagent	1	10.09	90%	9.08
State of California (Fish and Wildlife)	2	43.97	80%	35.18
Valentina Cottini	1	6.22	80%	4.98
Subtotal	*4*	*60.28*		*49.23*
Parcels near Canet, San Luisito Creek, or San Bernardo Creek Roads [2]				
Randolph Rogers	1	11.54	75%	8.66
George Ross	1	8.37	75%	6.28
Teresa Stoner	1	14.42	75%	10.82
Tony Gaoiran	1	2.92	90%	2.63
Steven Williams	1	11.56	40%	4.62
Karl Schenk	1	3.16	60%	1.90
Domingos Garcia	1	1.94	10%	0.19
Evelyn Caligari	1	20.45	95%	19.43
John Fox	1	2.01	10%	0.20
Michael Ness	1	2.81	90%	2.53
Aaron Bento	1	10.25	90%	9.23
Edward Allred	1	3.22	75%	2.42
Tony Gaoiran	1	13.26	75%	9.95
Subtotal	*13*	*105.91*		*78.83*
TOTAL	**17**	**166.19**	**77%**	**128.07**

Note: None of these parcels are in active irrigated agriculture, nor appear to have been in the recent past. However, they include open lands that are potential suitable for agricultural production, if the property owner opts to do so.

1 *The two parcels owned by Cal Fish and Wildlife adjacent to Chorro Creek are large enough, but may not be suitable for irrigated agriculture if they are used for habitat-related mitigation purposes.*

2 *Previously unreported parcels are in the vicinity of Canet, San Luisito Creek, or San Bernardo Creek Roads. These were not shown before because they were upstream from the Tri-W site, which was examined in the May 2014 siting study, but are downstream from the CMC site.*

Rancho Colina Site

The Rancho Colina Site is located in the Morro Valley, which supports extensive irrigated agricultural uses, primarily avocados, but also some citrus and row crops. In 2014, faced with an extended drought and lack of water, many growers severely cut back their avocado trees to reduce pressure on the trees. This effectively reduced their potential short-term productivity of these lands, which will not fully recover until there is a reliable long-term source of water.

Approximately 57 parcels ranging in size up to 450 acres include substantial irrigated portions, the largest of which is about 248 acres on a parcel owned by Morro Ranch Co. LLC. Most irrigated areas within these parcels range from 10 to 35 acres, and are generally planted in avocados. In all, there are

about 1,080 acres in the Morro Valley in current or recent irrigated production, the vast majority of which are within about 1.5 miles of the Rancho Colina site, and ranging from 0.1 to 3 miles from the City limits. A few irrigated areas are somewhat farther, up to about 4.5 miles from the City up Highway 41.

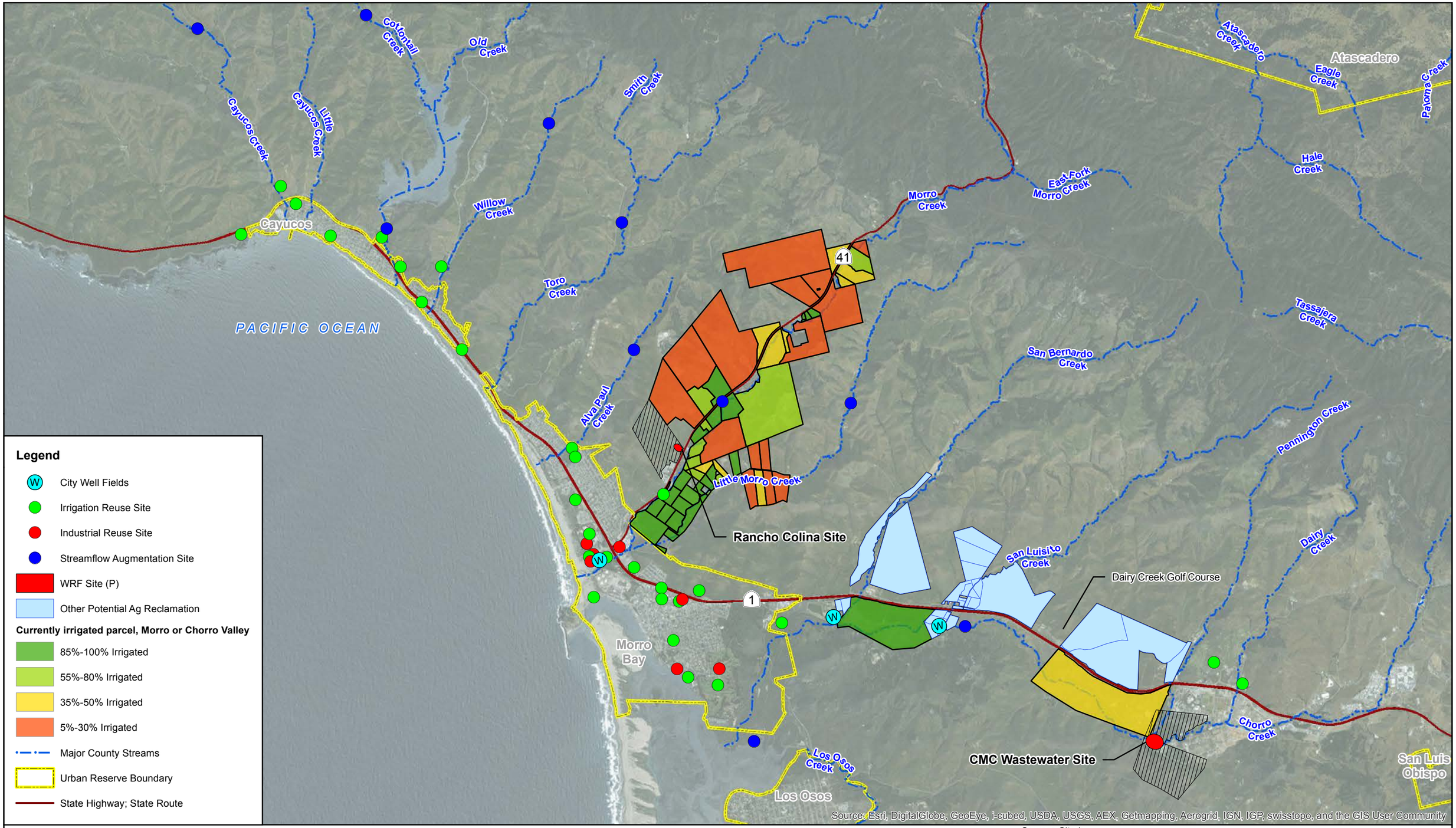

Figure 5: Regional Reclamation Opportunities

Sources Cited:
1. Cayucos/Morro Bay Comprehensive Recycled Water Study, Carollo Engineers, 1999.
2. Recycled Water Feasibility Study, Dudek, 2012.
3. Water Reclamation Facility Project Final Options Report, John F. Rickenbach Consulting, 2014.

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Scale: NTS

Table 10 summarizes the potential agricultural reclamation opportunities in the Morro Valley, which are shown on **Figure 1**.

Table 10. Morro Valley Irrigated Agriculture

Owner	Parcels	Total Acres	% Irrigated	Irrigated Acres
Morro Ranch Co. LLC	1	349.46	71.0%	248.12
Morro Creek Ranch	5	345.07	57.2%	197.46
Howard H. Hayashi	2	82.14	95.5%	78.42
Dwain Davis et al	1	98.43	38.3%	37.70
Susan Beasley et al	1	33.15	100.0%	33.15
Mary Flavan	1	43.69	75.0%	32.77
Paul Madonna et al	2	143.80	21.4%	30.72
James Shanley et al	1	111.65	26.2%	29.25
Evangeline D. Parker	2	46.58	50.0%	23.29
Neil R. Nagano et al	1	23.28	100.0%	23.28
Judith E. Hull	2	113.91	18.7%	21.29
Randy & Joanne Kann	1	21.06	95.0%	20.01
Dale E. Guerra	2	366.16	5.5%	20.00
Manuel S. & Amparo G. Haber	1	19.57	98.0%	19.18
Patrick N. Nagano et al	1	20.10	94.0%	18.89
Richard B. Kitzman et al	1	19.19	92.0%	17.65
Steve J. and Barbara J. Erden	1	19.96	87.0%	17.37
Scott T. Mather et al	1	19.70	86.0%	16.94
Kathleen E. Cirone et al	1	36.09	45.5%	16.42
James M. Dunn Family Ranches	3	663.65	2.5%	16.29
Gary H. Evans	1	151.30	10.0%	15.13
Eileen M. Giannini	2	15.54	90.4%	14.04
William Limon et al	3	14.05	92.9%	13.05
Frederick Harpster Sr.	1	31.35	41.0%	12.85
Larry Johnson et al	1	38.61	27.0%	10.42
Merriam J. Urquhart et al	1	11.11	90.0%	10.00
Teri A. Keyser	1	18.09	54.0%	9.77
Kenneth H. Macintyre et al	1	10.79	90.0%	9.71
Joseph M. Spellacy	2	52.73	17.2%	9.07
Steven B. Victor et al	1	9.89	90.0%	8.90
Lyle C. Foster et al	1	176.35	4.5%	7.94
Gregory J. Frye et al	1	29.10	27.0%	7.86
John J. Heitzenrater et al	1	11.96	58.0%	6.94
Richard P. Sauerwein et al	2	9.70	67.3%	6.53
Dana & Valerie Putnam	1	12.15	33.0%	4.01
Norman A. & Angia M. Martignoni	1	12.26	31.0%	3.80
Richard Lyons	1	9.04	42.0%	3.80
Kurt E. Steinmann	1	15.15	25.0%	3.79
Margaret G. French	1	40.00	6.0%	2.40
Mary Nagano et al	1	1.28	80.0%	1.02

Table 10. Morro Valley Irrigated Agriculture

Owner	Parcels	Total Acres	% Irrigated	Irrigated Acres
Ronald L. Kennedy et al	1	1.30	30.0%	0.39
TOTAL	**57**	**3,248.39**	**33.2%**	**1,079.62**

Note: This includes acreage that is potentially irrigated even if currently out of production. For example, in 2014 many avocado growers in the Morro Valley cut their trees because of extreme drought conditions, effectively removing them from production for an estimated 3-5 years after water becomes reliably available.

The Rancho Colina site stands at an average elevation of about 160 feet above sea level. Most reclamation parcels in the Morro Valley are below this elevation, even some of the areas upstream, since the site sits about 50 vertical feet above the elevation of Morro Creek from a cross-sectional line down the access driveway to the site. Highway 41 reaches an elevation of 160 feet about 0.5 miles from the end of the accessway northeastward on Highway 41, just past Calle La Palta. Generally speaking, irrigated agriculture on the north side of the highway going east from Calle La Palta will be at higher elevation than the Rancho Colina site. On the south side of the highway (closer to Morro Creek), parcels beyond 0.75 miles from the end of the Rancho Colina site access driveway are at higher elevation. Relative elevations are important because less power would be required to provide water to customers who are at lower elevations than the Rancho Colina site. This would result in lower capital and ongoing operating costs and will be one of the considerations during development of the Master Reclamation Plan.

Summary and Conclusions. The following summarizes the major findings of this analysis:

- In all, it is estimated that about 70% of the irrigated agricultural land in the Morro Valley sits at lower elevation than the Rancho Colina site, or about 700 acres, nearly all of which is within two miles of the City, and even closer than that to the WRF site. This compares to about 545 irrigated acres in the Chorro Valley that stand below the elevation of the CMC site, about 3-4 miles downstream from the CMC site, and about 1.5 to 2 miles upstream from the City. Generally, higher elevation difference between water customers and the reclaimed water supply will result in higher capital and power costs.

- In summary, there is about 25% more accessible (lower elevation) irrigated agricultural acreage in the Morro Valley than in the Chorro Valley, and it is generally much closer to both the City limits and the proposed WRF site, which has positive ramifications relative to reclamation pipeline infrastructure cost.

- Overall, while both valleys have substantial irrigable acreage, there are greater opportunities in the Morro Valley, near the Rancho Colina site, as well as greater demand for irrigation water in that valley, which has been historically pumped into overdraft. Based on the water demand estimates presented in the report, nearly all of the City and CSD's reclaimed wastewater could be delivered within a 3 to 4-mile long corridor of Highway 41.

Specific issues related to cost and benefits associated with providing water to agricultural parcels are described in Sections 6.A. and 6.B., which relate to potential regional benefits and comparative costs, respectively.

E. Are there unique regulatory or logistical constraints that may limit potential water supply or reclamation benefits of a regional facility at the CMC site? How does that compare to Rancho Colina?

Why This Issue is Important. A variety of regulatory or logistical challenges could make accessing potential water supply or reclamation benefits potentially problematic. There are legal constraints related to discharging into surface waters, some of which affect accessing potential groundwater supplies. There are minimum streamflow requirements associated with Chorro Creek before water can be accessed for other purposes, imposed to protect habitat within that watershed. Many drainages are protected as Waters of the United States or Waters of the State, the alteration of which would be limited by the conditions of a permit. Water rights are an important issue to consider, as there may be multiple claims on treated water that is produced from a regional facility. Another type of challenge would be legal framework under which a new facility would be built and operated. When multiple partner agencies are involved, an agreement among the agencies would be required. The complexity of such an agreement could adversely affect the timing of project implementation.

Comparative Site Analysis. The following discussion compares the sites with respect to this key issue.

CMC Wastewater Site

Interagency Coordination and Timing. As described in the introduction to this report, other agencies have expressed interest in pursuing a regional facility at the CMC site, notably the RWQCB's Executive Director, the Cayucos Sanitary District, and at one time, San Luis Obispo County Public Works Department. However, the County's interest appears to have waned in the past year, as personnel changed and priorities shifted to other major capital projects.

In recent months, the County has not prioritized the construction of a regional facility, nor has County staff expressed any urgency in doing so. This is underscored by the fact that while County staff has been cooperative with the City in this current study effort, the County expressed no desire to pay for or lead any of the necessary technical studies related to studying the issue. Relative to project timing, in a September 23, 2014 email to City Public Services Director Rob Livick, SLO County Deputy Public Works Director Mark Hutchinson stated that *"transferring all or a portion of the operation of utility services in the Chorro Valley to the County involves a process timeline that far exceeds the timeline established for addressing the current wastewater treatment situation in Morro Bay/Cayucos."* The County's inability to prioritize and provide leadership at this time is problematic for the City if it hopes to achieve its 5-year operational goal, since it will depend on County actions to move the project forward.

A larger issue is that the State Department of Corrections and Rehabilitation (CDCR) does not appear to be interested in the concept at this time. While not averse to the idea in the long-term, CDCR's Fred Cordano explains that for the State to even seriously consider the concept, there would first need to be extensive study and ultimately approval from the State Public Works Board and Department of General Services, in addition to the CDCR. This process would be lengthy, and would likely take at least one to two years, possibly longer.

The fact that there appears to be little current coordination or interest from two of the major players (the State is the current facility owner and operator, and the County would likely become the new operator) presents a major obstacle to realizing this concept in the near future. In addition, current regulations do not permit the State to provide municipal services, so either the County would need to be involved in the operation, or the regulations would need to change. Neither outcome is likely to occur in the near future, especially in the context of the City's stated 5-year goal.

The RWQCB's Executive Officer has pledged support to help facilitate a potential transfer of operations to the County and ultimately the permitting of a regional facility at this location. Nevertheless, the RWQCB's ability to effectively accomplish this is somewhat limited, since they are a regulatory agency charged with permitting and protecting water quality, rather than a municipality or land use authority in the business of operating public works infrastructure and providing municipal services.

The lack of leadership and/or interest at the State or County level for this concept is a major constraint. Even if this could be overcome, a multi-agency agreement relative to the operation of the expanded facility, and ultimately the water supply benefit the results from its operation, would need to be put in place. Such an agreement would need to involve CDCR, the County, the City of Morro Bay, CSD, and other users of the CMC facility. There have been no preliminary formal discussions among these agencies regarding the nature of such an agreement, which would need to address issues related to the construction, operation, maintenance, the extension of pipeline infrastructure, and allocating fair share costs for capital improvements. It would also need to address water rights, and the amount of reclaimed water that can be used by the various partner agencies. Other potential claimants might include intervening property owners between the CMC site and the City's Chorro Valley wellfield. In addition, the Department of Fish and Wildlife could determine that some or all of an increased streamflow in Chorro Creek would be needed to support potential benefits to aquatic habitat that relies on a reliable water supply. If this is the case, some of the potential perceived benefit to water municipal supplies may not be realized, and it is likely to take a multi-agency agreement to determine the appropriate level of water use for the various agencies. This crucial logistical hurdle will likely take significant time and study before an agreement can be reached.

CDCR staff has indicated that this multi-agency framework will need to be in place prior to CDCR's potential consideration of a regional facility at the CMC site. This is reflected in the timeframe shown in the Carollo analysis of the CMC site, included in **Appendix B** of this report.

The City of Morro Bay and CSD currently have a joint agreement to operate the existing City/CSD wastewater treatment plant located in Morro Bay. Very recent efforts to cooperate on a new facility notwithstanding, the fact that the City and CSD embarked on separate paths in 2013 to investigate sites for a new facility underscores that the two agencies' goals may be substantially different, and that it may be difficult to reach a mutual agreement on relative cost-sharing responsibilities at a regional CMC facility.

Overall, interagency coordination issues are a substantial logistical constraint that would affect the City's ability to realize any water supply and/or reclamation benefits from a regional facility at the CMC site, and would adversely affect the ability to achieve the City's 5-year goal.

Water Rights. Water rights would be a significant concern for development at the Regional CMC site. Agreements among the City, CDCR, CSD, and other wastewater customers of the CMC facility

would be required to protect the City's ability to withdraw their discharge at their Chorro Valley wells. Based on a preliminary review, it appears the City may be able to obtain a permit or rights for ownership of the water that it would introduce to Chorro Creek (and the City's wellfields) via the WWTP outfall. The ownership of CSD's wastewater, and other wastewater, may also be claimed by each of those agencies and use by the City will likely require agreements.

Once this additional water is regularly applied to the creek, and riparian habitat is enhanced by higher year-round flows, resource agencies may prevent the City from withdrawing this flow for other reuse opportunities similar to the requirements imposed on the City of San Luis Obispo and the discharges to San Luis Obispo Creek from their Water Resource Recovery Facility.

Streamflow Discharge Requirements and Limitations. Section 6.H. discusses discharge requirements for Chorro Creek. As described in the LWA Report, discharge to Chorro Creek represents the most challenging and highest future regulatory risk of the proposed discharge methods and locations (ocean outfall, percolation ponds, Morro Creek, and Chorro Creek).

Caltrans Encroachment. Development of a new WRF would not affect nor encroach upon Caltrans property. However, some of the pipeline infrastructure between the site and the City may need to be constructed adjacent to Caltrans right-of-way (Highway 1), either for conveying wastewater from the City, or to distribute recycled water to potential users in the region. This would require working cooperatively with Caltrans and the need to acquire an encroachment permit.

A proposed regional bike path route has been identified that could serve as an alignment for a raw sewage force main to CMC. This route would minimize the need for encroachment permits from Caltrans. This alignment is shown on **Figure 6**.

Environmental and Other Regulatory Permitting. In general, there is little difference in the environmental permitting steps involved at the CMC site and the Rancho Colina site. The basic steps include site and pipeline easement acquisition, a preliminary project design, CEQA evaluation, other regulatory agency permitting requirements, revised project design that responds to the CEQA and permitting process, City and Coastal Commission approval, and construction.

All project-related activities must be considered in the CEQA document for this project (likely an Environmental Impact Report or EIR). This would include steps ranging from property acquisition, project facility and pipeline design, grading, construction and operation. The facility planning and preliminary design must be completed before CEQA so that project definition is developed in sufficient detail for thorough environmental impact analyses. While the CEQA process and must be completed before resource agency permitting can be completed (since resource agencies will rely on the CEQA document), the permit process can be initiated during the CEQA process, which should likely save some time in the overall project implementation timeframe.

Note that if federal funding is involved, the project would also be subject to the requirements of the federal National Environmental Policy Act (NEPA). If so, the project could be evaluated in a joint CEQA/NEPA document, but this would likely take more time than if the project were subject only to CEQA.

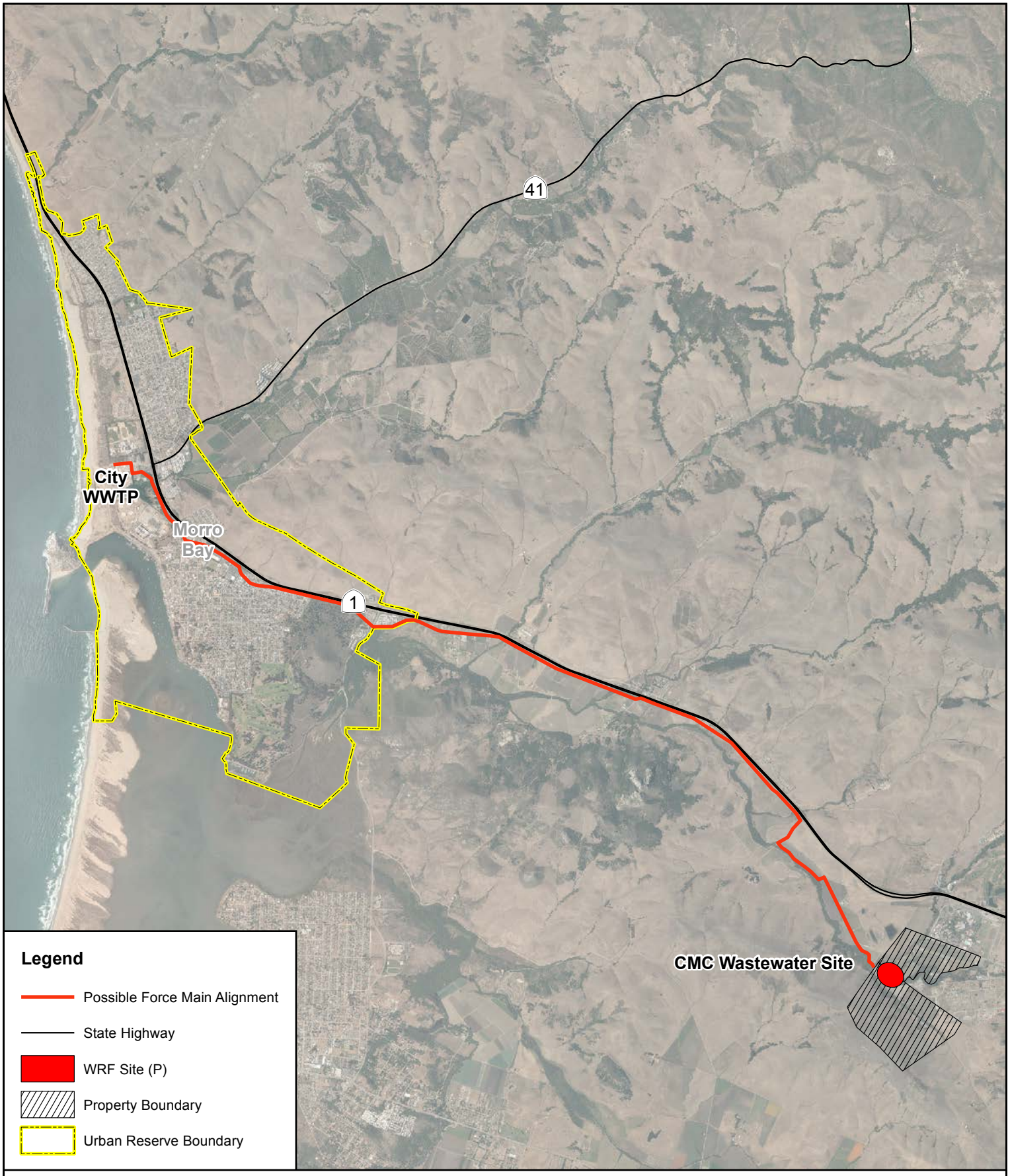

Figure 6: Possible CMC Force Main Alignment

Note: Basemap data obtained from County of San Luis Obispo GIS

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1 in = 1 mile

The site is sufficiently large to be able to locate the new WRF outside Waters of the United States, Waters of the State of California, and other resources under federal or state regulatory protection. However, discharge into Chorro Creek as part of the reclamation effort will require a permit that complies with the RWQCB Waste Discharge regulations.

Other key permitting agencies potentially include the U.S. Army Corps of Engineers (pursuant to Section 404 of the Clean Water Act), Regional Water Quality Control Board (NPDES permit; meeting Porter-Cologne Act requirements; Section 401 certification), California Department of Fish and Wildlife (Streambed Alteration Agreement). Although the permit process for these actions may be initiated during the CEQA process, their completion will depend to a large extent on agency evaluation and acceptance of the final CEQA document. If there are disagreements between permitting agencies and the City, it may require additional supplemental CEQA studies to satisfy resource permitting agency concerns.

As described in the *Options Report*, other key permitting agencies for this site include:

- California Environmental Protection Agency, Department of Toxic Substances Control (Site Assessment / Remedial Action Plan)
- California Coastal Commission / San Luis Obispo County Department of Planning & Building (Local Coastal Plan Amendment)
- California Department of Transportation (Caltrans Encroachment Permit)
- San Luis Obispo County Air Pollution Control District (SLOCAPCD)

In addition, several site surveys, studies and other activities will be needed in support of the permit application and CEQA process. These are the likely studies needed at this site:

- Jurisdictional Determination (Waters of the United States and State of California)
- Focused Special-Status Species Surveys
- Biological Assessment
- Prepare Habitat Mitigation and Monitoring Plan (if any)
- Hydrologic and Hydraulic Analysis
- Phase I Archeological Survey (Section 106)
- Phase I / II Site Assessment
- Site Remediation (if necessary as a result of the Phase I/II Site Assessment)
- Air Quality Tech Report
- CDP/CUP Permit Application Review
- CEQA Documentation

The final step in the regulatory process, which depend on the completion of the above steps, include:

- LCP Amendment

Rancho Colina Site

Interagency Coordination and Timing. The Rancho Colina site is privately-owned, and the property owner has expressed a high level of interest in working with the City to develop a new WRF at this location. Thus, it is possible to design and construct a facility at this location without the need to enter into any cooperative agreements with partner agencies, including the State or County. In the event that Cayucos Sanitary District wishes to work with the City to build, operate, and maintain the facility, or simply to be a customer of the City to serve the needs of the CSD, a framework for an agreement between the two agencies would need to be developed. The fact that there is already a framework for an agreement at the existing WWTP, and that both agencies have recently expressed the desire to work cooperatively at whatever location is chosen, suggests that such an agreement can be reached. If CSD does not choose to participate, it is possible for the City to construct and operate a facility at Rancho Colina by itself, although the cost borne by the City would be higher, because it would not be shared by CSD.

Interagency coordination issues at this location do not pose a substantial constraint.

Water Rights. As at CMC, water rights would be a significant concern for development at Rancho Colina. In this case, however, the County and State would not be parties to such an agreement, and there are substantially fewer property owners in the Morro Valley between the site and the City who might have claim to water discharged into Morro Creek, since it is much closer to the City.

Streamflow Discharge Requirements and Limitations. There is currently no minimum streamflow requirement for Morro Creek, although there is the potential, as with Chorro Creek, for the Department of Fish and Wildlife to require a minimum flow for the purpose of maintaining aquatic habitat if that agency determines that there is a potential benefit to habitat. While an agreement for the use of water discharged to Morro Creek would likely be needed, such an agreement would likely be less complex than one for Chorro Creek, for the reasons described above.

Section 6.H. of this report discusses possible discharge requirements for Morro Creek.

In Morro Valley, reclaimed water could be put into percolation ponds, or be used directly on agricultural parcels rather than discharged into Morro Creek. At this time, no studies have been conducted to identify appropriate sites for percolation so it is unknown if percolation is a viable option. This will be explored in the Master Reclamation Plan. If this approach were used, then there would be no need to enter into a multi-party agreement related to surface water rights. This approach would be logistically much less complex than an agreement that would need to be reached at the CMC site.

Caltrans Encroachment. As at CMC, development of a new WRF at Rancho Colina would not affect nor encroach upon Caltrans property. However, some of the pipeline infrastructure between the site and the City may need to be constructed adjacent to Caltrans right-of-way (Highway 41), either for conveying wastewater from the City, or to distribute recycled water to potential users in the region. As at CMC, this would require working cooperatively with Caltrans and the need to acquire an encroachment permit.

Environmental and Other Regulatory Permitting. In general, there is little difference in the environmental permitting steps involved at the CMC site and the Rancho Colina site. Please see the

discussion under the CMC site. One addition step at the Rancho Colina site would potentially be annexation approval from the San Luis Obispo Local Agency Formation Commission (LAFCo), if the site is to be annexed to the City. This process would not substantially affect the schedule, if consultation with LAFCo is begun early in the process, and fully addressed in the CEQA document. LAFCo staff was contacted in November 2014, and indicated that annexation would be possible and likely encouraged since the facility would be intended to improve municipal services and provide reclaimed water that could potentially supplement existing City supplies.

Summary and Conclusions. There are substantially more logistical and regulatory constraints at the CMC site related to the development and operation of a new WRF, as well as to realizing potential water supply or reclamation benefits for the City. These are summarized below:

- The transfer of operations of the current facility from the State (CDCR) to the County;
- CDCR's current lack of interest in effecting a transfer since this would not be major, long-term program that would not meet any agency goals or priorities, as confirmed by CDCR staff;
- The fact that multiple state agencies would need to study and approve a potential transfer and involvement of municipal customers such as Morro Bay and CSD, which will take considerable time;
- The County's low prioritization of a regional WRF coupled with lack of staff availability in leading the effort to investigate and operate a regional facility;
- The need to establish a multi-party agreement among potential water supply beneficiaries for reclaimed water that is discharged to Chorro Creek;
- A lack of a coordinated effort and differing goals between the City of Morro Bay and CSD relative to moving forward with a new WRF; and
- The fact that the four potential partner agencies have not engaged in any preliminary coordination efforts toward a potential working framework, an effort that would need to be led by the County.
- Collectively, these interagency logistical issues present significant challenges, and raise substantial concerns that a new regional facility can be built and operated at the CMC site in the framework of the City's goals related to timing, water supply benefits, and reclamation.

Development at Rancho Colina faces significantly fewer and far less complex logistical or regulatory challenges. Key findings include:

- The possible need to establish a multi-party agreement among potential water supply beneficiaries for reclaimed water that is discharged to Morro Creek, if reclaimed water is not stored in percolation ponds or offsite ponds for potential agricultural use;
- Pipeline infrastructure associated with the project that may be within Caltrans rights-of-way

would require an encroachment permit from that agency.

- Close proximity to the existing ocean outfall for use in the event there is an emergency need and for brine disposal to meet customers' salt objectives.

- Overall, the Rancho Colina site can be much more realistically accomplished within the framework of the City's goals related to timing, water supply benefits, and reclamation potential.

F. Are there physical site constraints at CMC that may limit project design flexibility? Will a regional facility likely be an expansion of the existing facility or will an entirely new facility be required?

Why This Issue is Important. Site constraints could present a fatal flaw and prevent expansion of the existing CMC facility or, at a minimum, can add construction cost.

Methodology. As described in the Carollo and MKN studies, conceptual layouts were prepared for both facilities based on available mapping and anticipated design criteria.

Comparative Site Analysis. The following discussion compares the sites with respect to this key issue.

CMC Wastewater Site

The Carollo report (**Appendix B**) notes the following relative to the CMC site:

- Expansion of the existing facility to accommodate the City and CSD will require doubling the footprint of the existing facility. No existing unit processes are sized for handling the additional flows and loads from the City and CSD.

- Design flexibility is constrained by the need to match the existing facilities and technology. For example, new centrifuges will be required for solids dewatering whereas newer technologies, such as screw press, that use less power and have lower capital cost could be considered at a new site like Rancho Colina.

- Relocation of the existing recycled water storage pond and a maintenance building will be required at CMC and have not been included in the cost opinions at this time.

Rancho Colina Site

As discussed in the MKN report (**Appendix C**), the Rancho Colina site is constrained by a stream and by an existing package treatment facility and storage pond that serve the existing Rancho Colina community.

The size of the property is sufficient to allow location of new treatment structures and facilities outside of a 100-ft setback from the stream. The final determination on a setback will be addressed during the permitting stage of the project.

Given the size of the property, and the ability to serve these users with the new WRF, construction can be staged to maximize use of the existing facilities while the new facilities are constructed. Then the existing facilities can be demolished and removed.

Summary and Conclusions. Based on existing information, it appears that either site could be modified for placement of the required facilities. However, the Rancho Colina site has fewer physical constraints since CMC must match existing unit processes and must be connected to existing site pipelines and facilities to maximize redundance, simplify operations, and minimize capital and operating costs. The existing recycled water pond and maintenance building at the CMC site must also be relocated although the cost for these facilities are expected to be minor.

G. What are the environmental issues that may be of concern to the Coastal Commission or the general public at the CMC site as compared to Rancho Colina?

Why This Issue is Important. The California Coastal Commission denied the development of a new WRF at the location of the existing WWTP largely because of its potential inconsistency with Coastal Act and LCP policies. These were discussed in extensive detail in the *Options Report*. A project that is consistent with Coastal policies would achieve the following:

- *Avoid Coastal Hazards*
- *Avoid Steep Slopes and High Elevation*
- *Promote Public Access/Recreation*
- *Minimize Visual Impacts*
- *Sustainable Use of Public Resources*
- *Avoid Environmentally Sensitive Habitat Areas (ESHA)*
- *Avoid Cultural Resources*
- *Avoid Agricultural Resources*
- *Promote Coastal Dependent Development*
- *Minimize Greenhouse Gas Emissions*

Comparative Site Analysis. The following discussion compares the sites with respect to this key issue.

CMC Wastewater Site

Both sites are in the Coastal Zone, so both will require approval of the Coastal Commission. The CMC site is far from the ocean, so coastal issues related to access, visual impacts and coastal hazards do not apply. At the same time, the CMC site assumes that reclaimed water would be discharged in to Chorro

Creek, which drains directly into the Morro Bay estuary. Thus, the Coastal Commission will look closely at issues related to the health of the estuary, which is addressed to a large extent by the RWQCB's discharge permit requirements and TMDLs prepared for Chorro Creek.

A site-specific analysis of key coastal issues is included below.

Coastal Proximity and Access. The site is about 4.7 miles from the Morro Bay estuary, and about 6.5 miles from the ocean, separated from all coastal features by intervening topography. The site is between 180 and 230 feet above sea level. It is not subject to coastal hazards such as tsunami and possible sea-level rise. A project at this location would not impede coastal access, or otherwise affect future development along the coastline.

Visual Impacts. There are no visual impacts relative to the coast, since the site cannot be seen from the ocean or estuary, nor would development on the site block views of these features. The most developable portion of the site is about 0.6 miles from Highway 1, and can be seen from a short segment of that roadway. However, intervening structures on the Cuesta College campus, as well as trees associated with drainages near the site would likely screen the facility to a large extent. Visual impacts from public viewing areas would be minimal, and no constraints to development at this site are anticipated.

Biological Resources/ESHA. ESHA is designated on the northern portion of site associated with Chorro Creek pursuant to the County's LCP; however, this consists of a small portion of the overall site, and can be avoided through design. The site is not identified in the County's General Plan under its "Sensitive Resource Area" Combining Designation.

Based on a search of the California Natural Diversity Data base (CNDDB), the following special status species have the potential for occurring on this site (list status shown in parentheses):

Plants

- Arroyo de la cruz manzanita (1B.2)
- Miles' milk vetch (1B.2)
- San Joaquin spearscale (1B.2)
- LaPanza mariposa lily (1B.2)
- Cambria morning glory (4.2)
- San Luis Obispo sedge (1B.2)
- San Luis Obispo owl's clover (1B.2)
- Congdon's tarplant (1B.2) (CNDDB onsite occurrence recorded)
- Brewer's spineflower (1B.3)
- Betty's dudleya (1B.2)
- Mouse-gray dudleya (1B.2)
- Blochman's dudleya (1B.2)
- Jones' layia (1B.2)
- San Luis Obispo modarella (1B.2)
- Adobe sanicle (1B.1)
- Most beautiful jewel flower (1B.2)

Invertebrates

- San Luis Obispo pyrg (SA)

Fish (in Chorro Creek, not on site itself)

- Tidewater goby (FE, CSC)

- Steelhead (FT, CSC) (CNDDB onsite occurrence recorded)

Amphibians

- California red-legged frog (FT, CSC)

Reptiles

- Silvery legless lizard (CSC)
- Pacific pond turtle (CSC)
- Blainville's horned lizard (CSC)

Birds (none)

Mammals (none)

The CMC site has not been surveyed for biological resources, so if this site were selected, and expansion of the existing facility would include areas not currently developed, surveys to determine the presence or absence of the potentially occurring special status species would be required.

Cultural Resources. In general, the Chorro Valley has potential for encountering cultural resources because of its proximity to Chorro Creek, and the fact that the area has a long history of human habitation. However, most of the site has been previously disturbed. The area is not included in the County's "Archaeological Sensitive Area" Combining Designation, which suggests that the area does not have the highest level of sensitivity.

In previous surveys, two prehistoric resources were found: a buried shell midden, and a scatter of chipped stone artifacts. There was also one historic trash dump. As noted in the Rough Screening Evaluation, the entire site may have been surveyed, but that has not been confirmed.

Because of the site's relatively high sensitivity, the possibility of encountering additional cultural resources on this property cannot be discounted.

Agriculture. The site is disturbed and has been previously developed. However, the westernmost 40 acres of the property have been used for agricultural purposes, and designated as AG under the County's General Plan. This area also coincides with one of the best locations on which an expanded or new facility could be built, although it is possible to construct between the tributary drainages in the western portion of the site, though the potential configuration of the facility may be more limited because of the need to setback from riparian area. This might have design implications if the project were constructed as a large regional facility shared with other agencies.

The entire site is designated as prime farmland if irrigated, except the areas within Chorro Creek or its tributary drainages. This site is not under Williamson Act (LCA) Contract.

LCP Policies 1, 2, and 3 require that agricultural lands be maintained unless there are circumstances in and around existing urban are that make agriculture infeasible or that would make conversion of the land to a non-agricultural use a logical land use change to better protect agricultural lands and strengthen the urban-rural boundary; that agricultural lands should not be subdivided unless such division would maintain or enhance agriculture; and, that non-agricultural uses should not be allowed except under limited circumstances, including in terms of supplemental non-agricultural uses where supplemental income is required for the continuation of agricultural use and 98% of the land is restricted for and maintained in agriculture. However, CZLUO Section 23.08.288, and Coastal Table "O", of the Land Use Element provide for the development of Public Facilities such as contemplated with the new WRF.

The County LCP allows for the siting of public utilities on agriculturally zoned property, partly from the recognition that agriculture uses are not an incompatible land use adjacent to a wastewater treatment or water reclamation facility. These uses can co-exist, without pressure from either one for limitations or restrictions on activities. As such, the plant would not be anticipated to result in the conversion of other lands with agricultural potential for public utility use on the property.

Overall, impacts to prime agricultural lands cannot be avoided, but it is worth noting that this site that much of the site has been previously disturbed, and the potential conversion of prime soils would not substantially impact agricultural production either onsite or offsite.

Minimize Greenhouse Gas Emissions. Construction and operation of public works facilities can increase GHG emissions and therefore the effects of global climate change. Energy (electricity) use during operation of the treatment plant, and lift stations and pumps used convey effluent from the facility, would generate GHG emissions. Although the pumps would not directly result in GHG emissions, use of pumps would indirectly release GHG emissions through the purchase/use of electricity.

This site has not been previously evaluated, and such an evaluation is beyond the scope of this study.

It can be said with some certainty, however, that this site is located substantially farther away from the City's sewer collection system, which currently convenes at the existing WWTP site, and is located at a higher elevation, and therefore would release a greater amount of GHG emissions compared to the Rancho Colina site due to additional energy demands to move wastewater to the site for treatment and eventual disposal.

Rancho Colina Site

Coastal Proximity and Access. The site is about 1.7 miles from the ocean, and separated by intervening topography. It is not subject to coastal hazards such as tsunami and possible sea-level rise. A project at this location would not impede coastal access, or otherwise affect future development along the coastline.

Visual Impacts. There are no visual impacts relative to the coast, since the site cannot be seen from the ocean or estuary, nor would development on the site block views of these features. The most developable portion of the site is about 600 feet from Highway 41, and can be seen from a short segment of that roadway, for less than one-quarter mile nearest the property. It is not in the direct line of viewing for motorists traveling on that highway. The site of potential development is about 1,000 feet northeast of the Rancho Colina residential complex, but is not visible from homes within Rancho Colina because of intervening topography.

Biological Resources/ESHA. The site does not contain any designated Environmentally Sensitive Habitat Area (ESHA) per the County's LCP. The nearest ESHA is along the riparian margins of Morro Creek, but that is outside of the WRF development area. No special status species have been identified on the site, though the following species are identified as having the potential to occur on the site (list status shown in parentheses):

Plants

- San Joaquin spearscale (1B.2)
- LaPanza mariposa lily (1B.2)
- Cambria morning glory (4.2)
- San Luis Obispo sedge (1B.2)
- San Luis Obispo owl's clover (1B.2)
- Congdon's tarplant (1B.2)
- Betty's dudleya (1B.2)
- Mouse gray dudleya (1B.2)
- Blochman's dudleya (1B.2)
- Jones' layia (1B.2)
- Adobe sanicle (1B.1)
- Most beautiful jewel flower (1B.2)

Invertebrates (none)

Fish (in Morro Creek; not on the site itself)

- Tidewater goby (FE, CSC)
- Steelhead (FT, CSC) (CNDDB onsite occurrence recorded)

Amphibians in and adjacent to Morro Creek, not likely on the upland portion of the site)

- California red-legged frog (FT, CSC)

Reptiles

- Silvery legless lizard (CSC)
- Pacific pond turtle (CSC)
- Blainville's horned lizard (CSC)

Birds (none)
Mammals (none)

Cultural Resources. No cultural resources have been previously identified on the most developable portions of the site. In general, the portions of the Morro Valley nearest to Morro Creek have a fairly high potential for encountering cultural resources, and the fact that the area has a long history of human habitation. The presence of Morro Creek along the southern boundary of the site (and throughout much of the Morro Valley in general) would have represented an attractive food resource for prehistoric populations migrating between the coast and the interior areas. Many properties within Morro Valley feature prominent ridgelines that are known to have been attractive for hunting camps and temporary activity areas. The potential for encountering such resources diminishes with elevation and with distance from the coast. The potential for encountering unknown resources on this site is considered low to moderate (Applied Earthworks, informal evaluation, March 2014).

However, the area in the general vicinity of Highway 41 near its intersection with Highway 1 is considered highly sensitive, and a large cultural resource site has been recorded in that area (CA-SLO-165). The site has been surveyed many times since 1983, in conjunction with different developments and roadway projects that have occurred in that area. The various investigations uncovered a variety of subsurface artifacts, indicating an area of extensive prehistoric human habitation (Far Western Anthropological Research Group, 1998).

While this area is about 1.2 miles from the Rancho Colina site, it is in the direct path through which pipeline infrastructure to serve the site would need to be extended, both for the purpose of conveying untreated wastewater, and for conveying excess wet-weather treated wastewater to the ocean outfall

for disposal. Before the pipeline route is finalized, the area should be surveyed again, with mitigation applied as appropriate, to minimize potential impacts to this resource.

Agriculture. Much of the land in Morro Valley features gently rolling hillsides trending to steeper topography to the north, particularly north of Highway 41. Most of this area is in rangeland, although some of this land supports avocado orchards. There are no prime soils on or near the most developable portions of the site.

The most developable portion of the Rancho Colina site (where the current wastewater treatment facility is located) is underlain by Los Osos-Diablo complex soils, which consist of loamy top layer overlying clay, sandy loam and bedrock, which is typically found at a depth of 39 to 59 inches (NRCS Soil Survey). It is not considered prime farmland by the NRCS, with a land capability classification of 6e. These soils are well-drained, and not prone to flooding or ponding. The depth to the water table is typically greater than 80 inches.

The steeper slopes above the more level area consist of Diablo and Cibo clays, which consist of clay over weathered bedrock, which is typically encountered at a depth of 58 to 68 inches below the surface. It is not considered prime farmland by the NRCS, with a land capability classification of 6e. These soils are well-drained, and not prone to flooding or ponding. The depth to the water table is typically greater than 80 inches.

The portion of the property just to the east of the current treatment facility and toward Highway 41 is Marimel silty clay loam, which consists of silty clay loam stratified loam and/or clay loam. This soil is considered prime farmland if irrigated, though it is not currently nor has it historically been irrigated on this property. Therefore, this property does not support prime farmland. The soil has a land classification of 1 (if irrigated), and 3c (if nonirrigated).
The potential development of a new WRF would not preclude continued agricultural uses on the property, which consists of grazing. Grazing land (uphill of the existing treatment plant site) has historically been provided from treated wastewater from the existing plant.

Minimize Greenhouse Gas Emissions. Energy (electricity) use during operation of the new facility, and lift stations and pumps used convey effluent from the facility, would generate GHG emissions. Although the pumps would not directly result in GHG emissions, use of pumps would indirectly release GHG emissions through the purchase/use of electricity. The site is located about 1.7 miles from the existing ocean outfall, and it is expected that the new WRF would need to tie into the existing infrastructure network at this location, with lift stations needed to pump wastewater uphill to the new site, which is at an elevation of about 150 to 160 feet.

Summary and Conclusions. After reviewing this report in draft form, the California Coastal Commission sent a letter to the City, dated December 2, 2014, in which it provided its independent preliminary analysis of the sites. Coastal Commission staff concluded that while both sites are potentially suitable, the Rancho Colina site would be considered preferable because it would better meet Coastal Commission objectives. As stated in the letter:

> *"While we have not reviewed all of the details associated with the two sites, based on the information contained in the comparative site analysis and what we currently understand,*

> *the long-term benefits of siting the WRF at the Rancho Colinas site, including groundwater replenishment and reduced reliance on State Water, appear to make it a better choice to pursue than the CMC site. In addition, the increased likelihood of the implementation of green technologies at the Rancho Colina site along with the fact that it is substantially closer to the City's existing infrastructure network and would require less energy, equating to lower greenhouse gas emissions, also weigh in its favor."*

The full text of the letter is attached to this report as **Appendix H**.

The following summarizes the major conclusions of this analysis:

- Each site is far from the coast and separated by intervening topography, so a new WRF at either location will not be visible from the coast or block coastal access.

- Neither site is subject to coastal hazards because of their elevation and distance from the ocean or estuary.

- The most developable portions of both sites do not contain designated ESHA, although there is ESHA on the margins of both Chorro and Morro Creek.

- The entire CMC site is considered prime farmland, although the existing wastewater plant location is not in agricultural production. The most developable portion of the Rancho Colina site does not contain prime soils, although the lower portion of the property is considered prime if irrigated and drained. The Rancho Colina site supports grazing activities.

- Neither site supports known cultural resources, but there is the potential to do so at either location because of known prehistoric human habitation in the area. Pipeline infrastructure from the Rancho Colina site would traverse a known cultural resource site, CA-SLO-165, which may result in impacts that require mitigation.

- The Rancho Colina site is substantially closer to the City's existing infrastructure network than the CMC site, and thus development at that location may use somewhat less energy—which translates into lower greenhouse gas emissions.

- For the reasons stated above, and based on its own preliminary analysis summarized in its letter to the City dated December 2, 2014, Coastal Commission staff concluded that the Rancho Colina site would be comparatively better relative to the potential achievement of Coastal objectives.

H. How will the discharge limitations and design goals of the treatment facility differ at the CMC and Rancho Colina sites? How will the treatment facilities differ as a result?

Why This Issue is Important. This issue is important because discharge limitations and permitting constraints have a bearing on potential project design, which in turn has cost ramifications. The cost issues discussed in Section 6.A. are based in part on limitation discussed below.

Methodology. Larry Walker Associates (LWA) performed an analysis of discharge permitting constraints for Morro Creek, Chorro Creek, percolation in Morro Valley, and the ocean outfall. See **Appendix E** for the complete LWA report, the major relevant points of which are summarized below. The analysis did not address water rights, potential issues with aquatic or riparian habitat, or other issues outside of National Pollutant Discharge Elimination System (NPDES) permitting for plant effluent.

The JFR project team had previously evaluated water quality and permitting requirements for Title 22 water reuse regulations in the *Report on Reclamation and Council Recommended WRF Sites* (May 2014).

Comparative Site Analysis. The following discussion compares the discharge limitations that could affect design goals at the two sites.

CMC Wastewater Site

In its Discharge Options report, LWA evaluated the current CMC permit, current SWRCB and federal policies, and pending policies that could affect treatment feasibility and costs at the CMC Regional Site. LWA and the JFR project team concluded the following relative to the site:

- The existing discharge permit at CMC includes limits for TDS at 500 mg/L and a daily total nitrogen limit of 10 mg/L. Based on discussions with RWQCB staff, this is one of the most stringent nitrogen limits in San Luis Obispo County since it is a daily limit, not a monthly average as in the existing San Luis Obispo and Paso Robles permits. Adding service to Morro Bay and Cayucos will require an upgrade of the plant process to perform TDS removal since their wastewater exceeds 900 mg/L. The nitrogen and TDS limits require facilities such as biological nutrient removal basins and microfiltration with reverse osmosis that are not required by Title 22 regulations for direct reuse of wastewater for irrigation.

- The existing discharge permit also includes limits for trihalomethanes in the plant effluent. This drove the recent upgrade from chlorine contact basins to ultraviolet radiation.

- Discharge to Chorro Creek is accompanied by the highest regulatory burden and regulatory risk when compared with Title 22 direct reuse of wastewater, ocean outfall, Morro Creek discharge, or percolation ponds.
- Chorro Creek is listed as an impaired water body for nutrients (nitrogen and phosphorus), pathogens, and sediment under the federal Clean Water Act.

- Both the State Policy on Nutrients and the State's Implementation Plan for Biological Integrity are likely to result in more stringent nutrient levels (nitrogen and phosphorus) for streams and enclosed estuaries. Eventual thresholds for nitrogen are likely to be in the vicinity of 1.0 mg/L total nitrogen (whereas the current CMC discharge limit is 10.0 mg/L) and total phosphorus will be approximately 0.1 mg/L. The existing permit only requires orthophosphorus levels to remain at 2004-2005 levels between May and November, with no stated numerical limit. According to the permit, median May-Sept concentrations were approximately 2.4 mg/L. New nutrient limitations will require upgrading the CMC facility.

- Increased discharges could be scrutinized by regulatory agencies (such as NOAA Fisheries and California Department of Forestry and Wildlife) since the creek is upstream of a high-profile, state-protected estuary of national significance that provides habitat for dozens of federally- and state-listed species.

- Introducing new flows could affect habitat and complicate efforts to redirect discharge in the future if direct potable reuse or other direct reuse alternatives are identified. For example, the City of San Luis Obispo cannot fully utilize the reclaimed water generated as part of their Water Reclamation Facility since they are required to maintain a minimum flow of 2.5 cfs in San Luis Obispo Creek for in-stream beneficial uses. The CMC facility is required to maintain 0.75 cfs in Chorro Creek but this number may increase, in the future, if more flow is available year-round to enhance aquatic and riparian habitat.

- The CMC discharge permit has a 5-year limit and any new regulations will be applied when that permit is renewed.

Rancho Colina Site

Elements of the LWA Report and JFR analysis are summarized below for the Rancho Colina site:

- The discharge permitting through RWQCB for direct reuse to agricultural users, coupled with the ocean outfall as a possible wet weather disposal option and/or percolation pond disposal if an appropriate site is identified, will result in fewer effluent permit limitations and less risk of increased regulation in the future, as opposed to a Chorro Creek discharge as described in the Effluent Disposal Analysis (LWA, 2014).

- In particular, the effluent TN and TDS limits would not be imposed on the Rancho Colina site unless a discharge to Morro Creek was proposed as part of that project. These parameters result in higher capital and operating costs at the CMC Site. TDS removal from a percentage of the wastewater flow may be necessary to improve effluent quality for avocados, however, even though it would not be a regulatory requirement.

- If a discharge to Morro Creek were proposed as part of the project, permitting constraints (including nutrient limits and toxicity limits) would be more significant than those for direct irrigation use, ocean outfall or percolation. However, Chorro Creek would have more stringent regulatory requirements since it is an impaired water body and is located upstream of the Morro Bay National Estuary as discussed in the Discharge Options report (LWA, 2014).

- Discharge to Morro Creek and/or the ocean outfall would result in issuance of an NPDES permit that would be renewed every five (5) years, similar to the CMC discharge permit.

- The project could indirectly increase the amount of streamflow available for riparian habitat, but is less likely to face opposition from resource agencies if recycled water is diverted to other uses in the future. The level of flexibility for pursuing new reuse opportunities in the future, including other reuse opportunities or direct potable reuse, is expected to be considerably higher for this project since the benefit to streamflow is indirect.

Summary and Conclusions. The following conclusions can be reached specific to the anticipated plant discharge permit at both sites based on the analysis presented above:

- Overall, the CMC site presents greater permitting challenges than development at the Rancho Colina site, which will have a direct adverse impact on the cost of the facility at that location.

- The CMC wastewater treatment plant discharge presents the most stringent regulatory requirements and greatest risk for additional requirements in the future. These have a direct impact on the cost to construct and operate the treatment facility, in addition to the City's ability to anticipate and plan for future costs.

- Stakeholders such as the Morro Bay National Estuary Program and regulatory agencies with jurisdiction over aquatic habitat and endangered species must be consulted prior to planning an expansion at CMC. Their input could impact permitting requirements, as well as ability to redirect treated effluent in the future if a different direct reuse opportunity is identified (for example, the City of San Luis Obispo's attempts to expand its recycled water program).

- A Rancho Colina facility that incorporates direct reuse of treated water with wet weather disposal through the ocean outfall (or via percolation ponds if appropriate sites are identified) presents the least discharge permit challenges and requires fewer onsite plant treatment facilities.

- A recycled water program (including agreements with users, capital investment in pumping and pipelines, and ongoing operation and maintenance) that complies with Title 22 requirements will be required to implement this strategy and must be factored into the site selection decision. The current recommendation, in order to comply with the City Council's 5-year timeline, is to work on this long-term planning and design effort in concert with planning, design, and construction of the Phase 1 WRF project if the Rancho Colina site is selected.

Please refer to **Table 11** in Section 7 of this report, *Summary and Conclusions*, for a locational comparison of all water resource-related issues, including those discussed in this portion of the analysis.

I. Is the City's 5-Year timeframe goal achievable at either the CMC or Rancho Colina site? What studies, permitting requirements, or logistical challenges may affect achieving this goal?

Why This Issue is Important. The City Council established a goal to have the new WRF operational within five years of a final site selection, in order to ensure the maximum protection of water quality and the ability to augment existing water supplies with reclaimed water as quickly as possible.

Methodology. The major obstacles to achieving the 5-year timeframe at any location relate to several factors, only some of which are related to the sites themselves. The key site-related factors include several issues already discussed in this report, notably:

1. *Minimizing logistical constraints associated with property ownership and developing a workable multi-agency framework for the design, construction, and operation of the facility*
2. *Finding a site that minimizes permitting challenges and regulatory constraints;*
3. *Finding a site that minimizes costs, in order to minimize challenges associated with funding the project.*

Most of these factors were previously analyzed in the *Options Report*, and some are carried further in this report. The issue of relative cost is discussed earlier in this report.

There are also several other factors not related to any of the sites themselves, which include but are not limited to: effective project management; the approach to bid process; consultant performance in the design and construction of the facility; developing a management framework with partner agencies, if any; completing and implementation an achievable reclamation plan; the degree of cooperation from regulatory agencies, including the Coastal Commission; and the level of public controversy.

While important, these factors are not analyzed in this report, because they do not directly pertain to the selection of one or another site.

Comparative Site Analysis. The following discussion compares issues related to the achievement of the City's 5-year goal at either site.

CMC Wastewater Site

This site has the following suitability characteristics for each of the issues identified above:

Logistical Constraints. The site is owned by the State of California Department of Corrections and Rehabilitation. As noted in Section 6.E. above, CDCR has not indicated any specific interest in pursuing an expanded regional facility at this location. In addition, working with the State would require complex approvals from multiple state agencies, including the State Public Works Board and department of General Services before the potential pursuit of this site could be considered, a process that would take significant time and study. Further, the State cannot provide municipal services by itself, but

would require the County to operate the facility to do so. At this time, the County's Public Works Department does not consider this project to be a high priority.

Development at this location would require a complex series of approvals from multiple state agencies and San Luis Obispo County, and then would require a multi-party operations agreement among CDCR, the County, Morro Bay and CSD. These agencies would also have to agree on water rights issues relative to the potential distribution and use of reclaimed water. Finally, CDCR has indicated that it would only own the WRF site itself, but the responsibility for extending pipelines to Morro Bay and CSD would be he responsibility of those agencies. This would have to be considered in the cost-sharing framework and long-term operations and maintenance of the overall facility/reclamation system.

Overall, the State's ownership of the site, the fact that the County has not prioritized this project, and the need for complex multi-agency agreements on a variety of issues present a substantial constraints, and realistically preclude the achievement of the City's 5-year goal. This conclusion is supported by CDCR's review of and concurrence with a preliminary schedule developed for inclusion in the Carollo Report (**Appendix B**), which shows it will take considerably longer than 5 years to build a regional facility at the CMC site.

Permitting and Regulatory Constraints. While issues that may be of concern to the Coastal Commission are similar to those for Rancho Colina, and the CEQA process somewhat similar, the permitting requirements for this site may be somewhat more complex because of the State's ownership of the site, and the need to involve and gain approvals of multiple agencies, including San Luis Obispo County. Please refer to Sections 6.E. and 6.G. above for further discussion of this issue.

Cost and Funding Constraints. Please refer to Section 6.B. above for further discussion of cost issues. Relative to potential funding, there does not appear to be any comparative advantage relative to securing potential funding (grants or loans) for a facility at this site. Please refer to Section 6.K. for further discussion of this issue.

Rancho Colina Site

This site has the following suitability characteristics for each of the issues identified above:

Logistical Constraints. The site is owned by a private individual who has indicated a high degree of willingness to work with the City to develop a new WRF at this location. The potential design, construction and operation of a facility at this site would be considerably less complex and time-consuming to achieve, because neither the State nor the County are involved in the ownership or potential operation of the facility.

If the CSD were included as a partner, development and operation at this location would require an agreement between the City and CSD, which would also need to include a cost-sharing framework. These agencies would also have to agree on water rights issues relative to the potential distribution and use of reclaimed water. Please see Section 6.E. above for further discussion of this issue.

Permitting and Regulatory Constraints. While issues that may be of concern to the Coastal Commission are similar to those for the CMC site, and the CEQA process somewhat similar, the permitting requirements for this site may be somewhat less complex because of the State is not

involved in the ownership, nor would there be a potential transfer of operations of the site to the County, as would be the case at CMC. Please refer to Sections 6.E. and 6.G. above for further discussion of this issue.

Cost and Funding Constraints. Please refer to Section 6.B. above for further discussion of cost issues. Relative to potential funding, there does not appear to be any comparative advantage relative to securing potential funding (grants or loans) for a facility at this site. Please refer to Section 6.K. for further discussion of this issue.

Summary and Conclusions. The following summarizes the major findings of the analysis related to this issue:

- Because of a variety of logistical constraints, it is not realistically possible to achieve the City's 5-year goal at the CMC site.

- At the Rancho Colina Site, because of a willing and cooperative property owner, and the fact that neither the State nor the County would be involved in the ownership or operation of the facility, the City's 5-year goal may be achievable.

J. What would the City's role be in constructing and operating a regional facility at CMC? How will an interagency framework affect the City's ability to achieve its stated goals?

Why This Issue is Important. City workshops and subsequent direction by Council established that several goals (in addition to cost-related objectives) were important to the City, including design, environmental benefits, energy efficiency and generation, and reuse of biosolids among others. The degree to which the City has control over the facility would affect the City's ability to realize these goals. Ultimately, the agency that controls design, construction, and operation of the facility will have greater control over the goals of the facility, whether that is the City (or partnership with CSD) at Rancho Colina or CDCR at the CMC Site.

Comparative Site Analysis. The following discussion compares issues related to the City's likely role at either site, and its ability to achieve its stated goals with respect to the proposed WRF.

CMC Wastewater Site

CDCR staff have stated that if CMC is expanded to serve the City and Cayucos as well as its existing customers, CDCR would retain ownership of the treatment facility but offsite raw wastewater conveyance and brine discharge pipelines would be owned and operated by others, likely the City and CSD.

For a facility at the CMC site, the City Council and CSD Board will not be able to jointly set annual budgets, determine the schedule and approach for addressing maintenance needs and capital

improvement projects, or generally control the budget and timing of activities at the plant. These will all be determined by CDCR if they retain ownership of the plant.
It is assumed the goals stated by the City related to energy recovery, biosolids reuse, and other important considerations could be incorporated into the plant design if there is no conflict with the existing plant process or with CDCR program objectives. However, the City will no longer direct the project other than design/construction of the force main and possibly the brine disposal pipeline.

In addition, CDCR has stated it would only operate the treatment facility itself, but that the construction, operation and maintenance of offsite reclamation infrastructure would be the responsibility of Morro Bay/CSD. This arrangement could lead to complex logistical issues related to the construction and maintenance of the facility as a whole. It could also lead to conflicts among the agencies whenever there is a breakdown in the system, relative to shared responsibilities for addressing the issue.

Rancho Colina Site

The City jointly owns and operates the existing MBCSD WWTP with Cayucos Sanitary District under a Joint Powers Agreement. Because neither CDCR nor the County would be involved, It is assumed that a facility at the Rancho Colina site could have a similar framework or agreement between the two agencies.

The City Council would be able to set annual budgets, determine the schedule and approach for addressing maintenance needs and capital improvement projects, or generally control the budget and timing of activities at the plant.

In addition, the City would be able to develop a project that meets their stated goals for the WRF since they will be directing the planning, design, construction, and operation of the facility.

Summary and Conclusions. The following summarizes the major findings of the analysis related to this issue:

- The City would own a facility at Rancho Colina but would likely be a customer or non-majority partner at CMC.

- For a CDCR-owned facility at CMC, the City and/or CSD would still be responsible for constructing and maintaining pipeline infrastructure to and from the site. This complex arrangement could lead to conflict among the agencies relative to shared responsibilities in the event of a breakdown in the system.

- Developing a project at the Rancho Colina site would allow the City to direct the project and meet stated City goals. Participating in a regional CMC project will turn over control to CDCR and unless City objectives align with those of CDCR, those desired project elements may not necessarily be included.

K. Does either site have comparative advantage relative to securing possible funding (grants and loans) for a new regional reclamation facility?

Why This Issue is Important. The issue relates to the City's ability to minimize costs. It has been suggested that aspects of the project could qualify it for various grant or loan programs, and that there there might be locational advantages to one site or another relative to securing potential funding.

Comparative Site Analysis. This issue was studied extensively in a report produced by Kestrel Consulting, and included in **Appendix F** of this report. The major results of the analysis that pertain to site selection are summarized below.

CMC Wastewater Site

A facility located at the CMC site might have different and potentially fewer uses for recycled water than one constructed at Rancho Colina, but greater potential for cost-sharing among regional partners, as well as expanded waste to energy systems. Until this Project is defined more clearly, it is difficult to assess grants that might be site-specific, and potentially comparatively more beneficial at this location.

Please refer to Sections 6.E., 6.F., and 6.H. for further discussion of issues related to project design and logistics. Also refer to Section 6.B. above for further discussion of cost-related issues.

Relative to potential funding, there does not appear to be any comparative advantage relative to securing potential funding (grants or loans) for a facility at this site, given what is known about the project at this time.

Rancho Colina Site

Generally speaking, a water reclamation facility at Rancho Colina could have a higher potential for uses of recycled water including groundwater recharge (storage). Proposition 1, which was passed on November 4, 2014, includes a new competitive grant program for water storage projects. This grant program is likely to have a preference for projects that reduce dependence on imported water.

An example of such a project would be if the City of Morro Bay proposed to inject and store highly-treated recycled water in the aquifer and pump it out at a later date in-lieu of State Water Project water. With such a project and a competitive grant proposal, it is reasonable to think that the state could contribute up to 25% of the cost of construction.

That said, as with the CMC site, there does not appear to be any comparative advantage relative to securing potential funding (grants or loans) for a facility at this site, given what is known about the project at this time.

Summary and Conclusions. Based on what is known about the project at this time, neither site appears to have a comparative advantage relative to securing potential funding (grants or loans) for a facility. In fact, it is generally important to have the project well-defined before making a major effort to

secure grants and loans, because these programs are highly competitive, and agencies offering these programs are looking for projects that have the highest degree of success. However, Kestrel Consulting has provided insights and recommendations to maximize the City's ability to secure grants and/or loans, whichever site is chosen. These are as follows:

- Since either project can be tied into water supply benefits, both could pursue similar grant and loan programs.
- The Rancho Colina site could have a slight edge over the CMC Regional site since improving quality and supply of groundwater in the Morro Valley could address a disparity between existing safe yield and basin demands, reduce risk of seawater intrusion, and help export nutrients and salt from the Morro Valley groundwater basin.
- CDCR could have access to various state funding sources for the Regional CMC site. However, since the plant upgrade would not address any agency priorities it is unlikely that they would assist with providing funds to upgrade the facility. Since the County would not take over the CMC WWTF, according to CDCR staff, County resources are not likely to be different then those that would be available to support a Rancho Colina site (e.g., coordination of Integrated Regional Water Management Plan-related funding).

7. Conclusions and Recommended Regional WRF Site

Table 11 summarizes the findings of the site analysis with respect to the key questions posed above. The table is color-coded to assist the reader in interpreting the results. Green areas indicates a comparative advantage for one site or the other, while orange indicates substantial constraint that may be difficult to overcome while still meeting the City's goals for the project.

Table 11. Summary of Comparative Site Analysis and Findings

Key Issue	Site		
	CMC	***Rancho Colina***	***Better Site***
	Summary of Issues		
A. Unique Regional Benefits?			
Administrative	• Combines multiple agencies in one location	• Multiple agencies served in two locations • Would remove existing outdated WWTP that serves nearby residential area, and replace it with new WRF, resulting in no net new facilities to permit.	*CMC*
Regional Water Supply and Distribution	• About 1.5 miles from connection to regional water distribution network	• About 1.5 miles from connection to regional water distribution network	*similar*

Table 11. Summary of Comparative Site Analysis and Findings

Key Issue	Site		
	CMC	***Rancho Colina***	***Better Site***
Economic	• Water reclamation could benefit crops in Chorro Valley, but to a less extent than the comparative advantage of Rancho Colina relative to Morro Valley	• Water reclamation could benefit more acreage of relatively higher value crops	*Rancho Colina*
B. Relative Cost to Construct and Operate?			
	• The additional cost for raw wastewater force main and pumping and brine discharge from the CMC site is significant since 6 miles of pipeline are required in excess of the requirements for Rancho Colina. • The capital cost for CMC WWTP expansion is estimated at $161M. • O&M costs are higher at CMC due to higher energy and chemical costs per gallon of treated water. Therefore, lifecycle costs are also higher. • The only O&M cost benefit to sharing the facilities is to share staffing but that savings does not offset the additional power and chemical costs.	• The capital costs for a functionally equivalent Phase I WRF at Rancho Colina is estimated at about $75M.	*Rancho Colina*
C. Unique Water Supply Benefits?			
Groundwater Availability and Quality	• Highest potential benefit during drought year (up to 950 AFY) • 26 parcels	• Highest potential benefit during normal or wet year (900 AFY) without CSD, and 1,125 AFY with CSD • Fewer effluent permitting challenges and lower regulatory risk related to discharge	*similar*
Streamflow Augmentation	• Streamflow augmentation is assumed as major component of reclamation	• If streamflow augmentation occurred, overall benefit would be similar to Chorro Creek	*similar*
D. Agricultural Reclamation Opportunities?			
Existing and Potential Acreage	• 673 acres of potential irrigated ag • 26 parcels	• 1,080 acres of potential irrigated ag • 57 parcels	*Rancho Colina*
Crop Type and Value	• Mostly mixed row crops • Moderate value	• Mostly avocados • High value	*Rancho Colina*

Table 11. Summary of Comparative Site Analysis and Findings

Key Issue	Site		
	CMC	***Rancho Colina***	***Better Site***
E. Regulatory or Logistical Constraints?			
Interagency Coordination and Timing	• Neither CDCR nor County indicate desire to lead • Could not be achieved in 5-year timeframe • CDCR not motivated to pursue • Would require multiple state agency approval to pursue (2 years to go/no go decision?) • Low priority for County • Multi-agency framework needed; complex negotiations • Has support of RWQCB Executive Officer, but Board position is unknown	• Privately-owned; motivated seller • No coordination with CDCR or County needed • Could be achieved in 5-year timeframe • CSD is potential partner, but Morro Bay could pursue site independently	*Rancho Colina*
Water Rights	• Requires permitting to obtain water rights at City wellfields • Requires multi-agency agreements among all the customers discharging to the CMC WWTF • Risks creating or enhancing habitat and reducing ability to use recycled water for other applications in the future similar to City of SLO.	• Requires permitting to obtain water rights and City wellfields • Requires agreements with customers to reduce their pumping	*similar*
Streamflow Discharge Requirements and Limits	• Difficult to meet water quality goals in TMDL • Must meet minimum flow requirements	• No TMDL standards • No minimum flow requirements on Morro Creek	*Rancho Colina*
Caltrans Encroachment	• Encroachment Permit for pipeline potentially avoidable	• Encroachment Permit along Highway 41 needed for pipeline	*CMC*
Environmental and Other Agency Permitting	• Multiple studies and permits needed	• Multiple studies and permits needed	*similar*
F. Site Constraints that Affect Design?			
Site Configuration/Existing Development and Environmental Features	• Expansion of the existing facility to accommodate the City and CSD will require doubling the footprint of the existing facility. No existing unit processes are sized for handling the additional flows and loads from the City and CSD. • Design flexibility is	• The Rancho Colina site is constrained by a stream and by an existing package treatment facility and storage pond that serve the existing Rancho Colina community. The site is large enough to locate new treatment structures and facilities outside of a	*Rancho Colina*

Table 11. Summary of Comparative Site Analysis and Findings

Key Issue	Site		
	CMC	***Rancho Colina***	***Better Site***
	constrained by the need to match the existing facilities and technology. • Relocation of the existing recycled water storage pond and a maintenance building will be required at CMC and have not been included in the cost opinions at this time.	100-ft setback from the stream. • Construction can be staged to maximize use of the existing facilities while the new facilities are constructed. Then the existing facilities can be demolished and removed.	
G. Coastal Environmental Issues?			
Coastal Proximity and Access	• 4.7 miles to estuary; 6.5 miles to ocean. Will not affect coastal access	• 1.7 miles to ocean. Will not affect coastal access	*similar*
Visual Impacts	• Not visible from coast; distant view from Highway 1	• Not visible from coast; brief view from Highway 41	*similar*
Biological Resources/ESHA	• ESHA near Chorro Creek, potentially avoidable • Red-legged frog, tidewater goby and steelhead in Chorro Creek	• ESHA near Morro Creek, avoidable • Red-legged frog, tidewater goby and steelhead in Morro Creek	*similar*
Cultural Resources	• Site disturbed; potential for unknown resources exists	• Site disturbed; potential for unknown resources exists • Large site (CA-SLO-165) near SR 41/1 intersection could be impacted by pipeline	*CMC*
Agriculture	• All developable area property underlain by prime soils	• No prime soils in most developable area; some potentially prime soils near Highway 41	*Rancho Colina*
Minimize Carbon Footprint	• Longer pipeline distance suggests higher energy use and thus GHG emissions • Treatment process requires more power due to hydraulic limitations at the site and more stringent effluent requirements	• Shorter pipeline distance suggests lower energy use and thus GHG emissions	*Rancho Colina*
H. Design Limitations?			
Discharge Limitations that affect design	• Permitting challenges related to discharge limitations will adversely affect cost	• If direct reuse of water and wet weather disposal used, there would be fewer permitting challenges leading to lower costs; recycled water program is a critical path item	*Rancho Colina*
Other Considerations	• Morro Bay NEP and other agencies will need consultation relative to	• No national estuary reduces potential permitting and	*Rancho Colina*

Table 11. Summary of Comparative Site Analysis and Findings

Key Issue	Site		
	CMC	***Rancho Colina***	***Better Site***
	impacts to estuary	consultation challenges related to meeting water quality standards	
I. Is 5-Year Goal Achievable?			
Logistical Constraints	• Neither CDCR nor County indicate desire to lead • Would require multiple state agency approval to pursue (2 years to go/no go decision?) • Could not be achieved in 5-year timeframe	• Privately-owned; motivated seller • No coordination with CDCR or County needed • Could be achieved in 5-year timeframe	*Rancho Colina*
Permitting/Regulatory Constraints	• Multiple studies and regulatory permits needed	• Multiple studies and regulatory permits needed	*similar*
J. City's Role in Operating facility?			
Treatment Facility	• Owned by CDCR; City would be customer	• Owned and operated by City	*see below*
Offsite Pipeline Network	• Owned and operated by City	• Owned and operated by City	*see below*
Logistical Issues	• CDCR control would make realization of City goals difficult • Split ownership of treatment facility and pipelines could lead to conflict among agencies	• City control would make realization of City goals possible • Unified City ownership of entire reclamation system reduces operation and maintenance difficulties	*Rancho Colina*
K. Comparative Funding Advantages?			
Grants and Loans	• There are currently no identified site-specific advantages for securing funding at this location.	• There are currently no identified site-specific advantages for securing funding at this location.	*similar*
Other Considerations	• A well-defined project at any location will be more competitive for funding. • Projects that solve nitrate problems will be more competitive.	• A well-defined project at any location will be more competitive for funding. • Projects that solve nitrate problems will be more competitive.	*similar*
OVERALL			***Rancho Colina***

While both sites are potentially suitable for a new regional WRF, the **Rancho Colina** site is considered better overall. Key considerations in this determination include:

- Long-term benefits of water reuse in Morro Valley exceed those in the Chorro Valley for the following reasons:
    - Siting in the Morro Valley provides an opportunity to optimize reuse of State Water to restore a severely deleted groundwater basin that already experience agricultural demands that exceed the basin's safe yield (Cleath, 2014);
    - The City can likely improve the reliability of its existing appropriated water right and acquire additional water rights based on the reclaimed water used to recharge the basin;
    - Once the basin is restored and operated in a sustainable fashion, the City gains the ability to reduce its reliability on State Water and use a less expensive water supply to significantly reduce water costs to rate payers;
    - The Rancho Colina site is much closer to both the existing Morro Bay Desalination Plant and the Ocean Outfall, both of which provide vital infrastructure support to direct agricultural and future potable water reuse;
    - The Rancho Colina site and City water distribution system are within 2 miles of both the Whale Rock and Chorro Valley Turnout, thereby enabling broader distribution of reclaimed or potable City water throughout San Luis Obispo County. The CMC WWTP is a similar distance from both pipelines, so that site does not have an advantage relative to proximity to major water conveyance facilities.
    - Recharge of the Morro Valley aquifer provides three secondary benefits by:
        - Reducing the risk of seawater intrusion into the City well fields (Cleath, 2014)
        - Increased pumping which could remediate existing nitrate contamination in the basin because of the unique hydrogeographic conditions at "the Narrows" (Nitrate Study, Cleath, 2014)
        - Direct or indirect groundwater recharge of the aquifer through either percolation ponds or stream discharge which could potentially enhance aquatic habitat in both Morro and Little Morro Creeks
- The City's 5-Year Goal is not achievable at the CMC site, for the following reasons:
    - Neither CDCR nor the County appear likely to make expansion of the WRF facility at CMC a priority in their 5-year capital improvement program;
    - Pursuit of a regional facility at CMC would require extensive study and multiple state agency approvals, which may take at least a year or longer to even determine feasibility. If the State denies the project concept, the City would need to pursue a different site.
    - A multi-agency framework for operation, maintenance, cost-sharing, and water rights

would need to be developed at CMC, which would take considerable time.

- Rancho Colina has highly motivated private property owner, willing to work with the City, and there are no agency-related constraints to transferring ownership or operation to the City, which will save considerable time. Conversely, the CMC site is currently encumbered by an existing State Bond, which could significantly complicate property transfer/acquisition.

- The cost to build and operate a WRF at Rancho Colina site would be substantially lower than at the CMC site. The capital costs for the CMC expansion to accommodate the City and CSD is estimated at $161 million based on detailed process modeling and cost opinions. A functionally equivalent Phase I "Reclamation Ready" system at Rancho Colina would be approximately $75 million. Annual O&M costs would be higher at CMC due to higher energy and chemical costs per gallon of treated water.

- In their preliminary review of the two sites, California Coastal Commission staff considers the Rancho Colina site preferable relative to meeting that agency's goals.

- The City will have more flexibility at a "greenfield", or undeveloped, site to pursue innovative treatment approaches, energy-efficient technologies or alternative energy elements such as solar panels, composting, and other City priorities identified during the public workshops in 2013, rather than if they are a partner in the expansion of the existing CMC plant.

- Although a new WRF at CMC could improve the City's water supply from its wells Chorro Valley wells, the City would also benefit from a WRF in the Morro Valley indirectly by creating an additional water supply that could benefit growers in the Morro Valley and improve the utility of the City's wells in that valley. In addition, some of the City's theoretical water supply gain in the Chorro Valley from a CMC site could be offset by minimum streamflow requirements in Chorro Creek, or complications related to achieving water quality goals in that basin.

Table 12 below summarizes the conclusions from the water resources-specific studies performed for each site, relative to cost, potential water supply benefit, and permitting. For the Rancho Colina site, the table considers two possibilities: that CSD may or may not participate in a new WRF at that location.

Table 12. Comparison of Water Resources-Specific Conclusions

	CMC Wastewater Site	Rancho Colina (City Only)	Rancho Colina (City + CSD)
Design Flows for City/CSD	Additional 1.5 MGD (1,680 AFY)	1.13 MGD (1,270 AFY)	1.5 MGD (1,680 AFY)
Discharge Permitting	Highest regulatory risk due to location upstream of Morro Bay National Marine Sanctuary; listing of Chorro Creek as an impaired water body under the Clean Water Act; TN and TDS limits; and potential future nutrient policies. Mandatory minimum penalties are assigned to effluent exceedances (typically $3,000 per violation or $10,000 per day)	Opportunities include a range of permitting options such as use of the existing ocean outfall for wet weather flows, direct agricultural reuse within 3 miles of the plant, potential percolation, and stream augmentation. All vary in level of complexity but have less effluent limitations than CMC Regional Site.	Same as City Only
Water Supply Benefit	900 AFY during drought years 515 AFY during normal/wet years	320 AFY during drought years 895 AFY during normal/wet years	585 AFY during drought years 1,160 AFY during normal/wet years
WRF Capital Cost	$ 161,484,000	$ 66,789,000	$ 74,210,000
Annual Treatment Facility O&M Cost	See Appendix D	$ 720,000	$ 820,000
Relative Cost for Wastewater Reclamation	$ 5,800,000 for Chorro Valley Water Treatment Plant	$ 25,900,000 for Phase II Recycled Water System	$ 27,700,000 for Phase II Recycled Water System
Relative Cost for Water Supply Benefit ($/AFY)	Over $20,000	$9,000	$8,000

8. References and Report Preparers

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References for this study also include links to articles, newsletters, studies, and other documents imbedded into many of the above documents, websites, and correspondence submitted through the process.

Report Preparers

This report was prepared by **John F. Rickenbach Consulting** under contract to the City of Morro Bay. Persons and involved in the preparation of this report and related supporting activities include:

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Appendix A

Letter from San Luis Obispo County to CDCR
October 29, 2013

SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS
Paavo Ogren, Director

County Government Center, Room 206 • San Luis Obispo, CA 93408 • (805) 781-5252
Fax (805) 781-1229 email address: pwd@co.slo.ca.us

October 29, 2013

VIA EMAIL & MAIL

Fred Cordano
Associate Director
Facilities Asset Management Branch
Facility Planning, Construction and Management Division
California Department of Corrections and Rehabilitation
9838 Old Placerville Road, Suite B
Sacramento, CA 95827

Dear Mr. Cordano,

The purpose of this letter is to provide you with a summary of some of my thoughts, prior to our meeting on November 8, 2013, relating to discussions that have transpired over the past few years on the possibility of transitioning the operations of the water and wastewater facilities at the California Mens Colony (CMC) to the County of San Luis Obispo (County). Although no formal action has been considered by the County Board of Supervisors, several benefits will result if a transition occurs and my discussions with many recognize the transition will include benefits for California Department of Corrections and Rehabilitation (CDCR), the County and other agencies currently receiving service from CMC. Understandably, certain concerns have also been raised and I have addressed those to the extent I am aware of them. Lastly, I have provided some thoughts on how service might be transitioned in the event that your agency, the Board of Supervisors, and others agree to do so.

As you may be aware, the San Luis Obispo County Flood Control and Water Conservation District (District), which is a component of the County, is managed by the Public Works Department. We provide wholesale water to all seven (7) cities within our boundaries and most of the unincorporated communities. We operate two dams and reservoirs – Salinas Dam under agreement with the United States Army Corp of Engineers and Lopez Dam which was supported by a local voter initiative in the 1960s. The District is also a State Water Contractor and obtains a fourth wholesale supply from Lake Nacimiento, which is operated by the Monterey County Water Resource Agency. Each system is operated pursuant to multi-agency contracts, just as the current CMC systems are operated pursuant to contractual arrangements. The business professionals within Public Works include MBAs and CPAs and are instrumental in the administration of these contractual relationships.

In addition to the District's wholesale operations, the Public Works Department also operates municipal retail water systems through "County Service Areas" in Shandon, Santa Margarita, and Cayucos; plus a system in the Avila Valley area that is based on contracts with individual property owners due to its relatively rural nature. We operate Grade 3 and Grade 4 water treatment plants. We currently operate two wastewater systems and are developing a Grade 4 water recycling facility for the community of Los Osos, which had a 30-year duration of non-compliance with a Regional Water Board mandate to convert the community from septic systems to a community system. We are more than 50% complete with the construction of the Los Osos collection system and are currently bidding the water recycling facilities bringing compliance to Los Osos.

The Public Works operating crews include both Water System Workers and Public Works Workers. The former are our water and wastewater operators; the latter are our heavy equipment workers who predominantly work on our roads and bridges as employees of our Transportation Division, in addition to working on reservoirs and levees since our job specifications recognize that multi-dimensional crews are important to meeting the needs of ever-increasing complex field work.

The Public Works Department also has a State certified water quality lab and a team of Environmental Specialists that are leaders on the Central Coast in understanding the local environmental issues and how to obtain permits from Federal and State resource agencies in a timely manner. Finally, we are the lead agency responsible for San Luis Obispo County's Integrated Regional Water Management (IRWM) Plan, which is the State's planning model for coordinating the multiple benefits of water resource management including water quality, water supply, ecosystem restoration, groundwater and flood control.

In consideration of a possible transition, there are two primary benefits that I envision for the County.

P1. The transition will ensure reliability of service.
P2. The transition will enhance emergency responsiveness.

Below, addresses each of the primary benefits.

Reliability of Service

The CMC facilities, via Public Works, provide service to several agencies including the County Sheriff, the County Jail (male, female and juvenile facilities), the Emergency Operations Center and others. Each of these are critical to local law enforcement and responsiveness of all emergency personnel. Although CMC has not failed to meet its responsibilities to the County, concerns do exist on the lack of upgrades to some of the facilities and understandably, the resources at CMC are limited in their ability to tackle the issues that are facing public infrastructure as environmental and other regulations have been increasing over the years. The benefit of the Public Works Department providing a full slate of professional and operating resources is especially important on complex issues.

While I do have confidence in the CMC operators and other staff to succeed on a daily basis, the concern I have and the benefit the County provides is the breadth of resources available to address the non-routine issues and capital projects in a timely manner. Our in-house engineering staff includes a full compliment of water and wastewater professionals, in addition to structural, design and construction engineers. The design of the Los Osos wastewater (water recycling facilities) include similar technologies to the CMC facilities. Utilizing a common operating crew will provide economies of scale, as well as additional on-call staff to respond in the event of system malfunctions or failures. One of our heavy equipment yards is also located across Highway 1 from CMC, and the opportunity to ensure long-term maintenance of Chorro Reservoir, as an example, will benefit the overall operations.

Emergency Responsiveness

As California's challenges for adequate water resources continue, the need for local emergency and drought responsiveness increases. Our efforts in IRWM Planning has earned us grant funding and other recognition at the State level. A transition to the County will benefit both the County and CMC by improving access to water in droughts and other emergencies. The existing CMC rights to Whalerock Reservoir will provide enhancements to regional emergency planning and, likewise, the County's ability to respond to future needs of CMC in emergencies and droughts will be enhanced if the County has a direct responsibility for ensuring adequate water supplies to CMC during emergencies and droughts.

The issue of emergency responsiveness may best be understood in that the County is a permanent local institution that is extensively involved in emergency action planning and response with a long history of success. The Public Works Department is part of the County's emergency response efforts and we currently respond to the "Control Room" with other decision makers during emergencies. The significance of challenges during emergencies, including how multiple agencies need to coordinate, are understood by a relatively small percentage of people, and I am of the opinion that the transition will benefit both CMC as well as the region in our efforts to assure that safe drinking water is available in emergencies and droughts. I also believe that CMC's current reliance on State Water is an "at-risk" issue and the ability to connect to the Nacimiento Supply and improve system reliability absent of emergencies should be on the table for us to discuss and consider.

In addition to these two primary benefits, there are two secondary benefits that I also believe exist.

S1. Capital Project Planning and Implementation
S2. Local Needs and Regulatory Alignment

Below, addresses each of the secondary benefits.

Capital Project Planning and Implementation

In addition to the full breadth of engineering, environmental and financial professionals needed to successfully implement capital projects in a timely manner, the County also has its own financing authority for the sale of municipal bonds when needed. Recently, the County's Triple "A" credit rating led to issuance of approximately $200 million in municipal bonds for the construction of the Nacimiento Water Project which began operations in 2011. The Project included 45 miles of pipeline from Lake Nacimiento to the City of San Luis Obispo, with turnouts serving Paso Robles, Templeton and Atascadero and facilities that include three storage tanks, three pump stations and intake facilities at the lake. Our current efforts in developing a $173 million wastewater collection and water recycling facilities for Los Osos has been funded through approximately $20 million in Federal and State grants and the remaining $150+ million is from $70 million in State Revolving Funds (SRF) issued by the State Water Board and $83 million in Rural Development Funds from the United States Department of Agriculture (USDA). The SRF funds is one of the largest awards by the State Water Board and the USDA Rural Development Funds is the largest project funding ever awarded by USDA in the history of the Rural Development Program.

The Public Works Department success in developing funding is a result of excellent County credit ratings and our success in public outreach. The importance of establishing local support for infrastructure goes almost without stating today and is illustrated by voter approvals we have obtained. For example, we completed the Lopez Dam Seismic Remediation Project in 2006 and received State-wide honors as the geotechnical project of the year, but only after voters approved a special tax that required two-thirds approval, and we obtained a nearly 70% 'yes' vote. The Los Osos wastewater project success came only after the property owners approved assessments of nearly $25,000 per single family equivalent unit by an 80% yes vote! Our business professionals have been instrumental in the success of our capital projects, and while our engineers and environmental professionals have led the alternatives analysis and environmental permitting, the development of the best available financing for all of the projects we undertake is one hallmark of our success. Likewise, developing support between governmental agencies, such as what was needed for the Nacimiento Water Project, the Lopez Dam Seismic Remediation Project, the Los Osos Wastewater Project, and others, is another hallmark.

Local Needs and Regulatory Alignment

The existing CMC wastewater facilities have the potential of helping to address other local needs including those facing the communities of Morro Bay and Cayucos. Since the 1990's, the communities have been under a mandate by the Regional Water Board to upgrade the facilities. In January of 2013, the California Coastal Commission denied the coastal development permit for a project that had been proposed by the communities and re-evaluation of options is ongoing. Utilizing the CMC facilities as a regional treatment plant has been part of recent discussion, but it is our understanding that CDCR cannot provide municipal services. As a result, if this option is beneficial,

then it is likewise our understanding that transitioning operations to the County will provide the ability for the treatment plant to serve additional local needs. In doing so, the benefit to CMC and others connected to the CMC system will be a reduction in operating costs since economies of scale will result. A full analysis of capacity, "buy-in fees" and upgrade responsibilities that Morro Bay and Cayucos would need to pay, environmental impacts and other issues will need to be part of the project alternatives analysis that Morro Bay and Cayucos will need to update.

Our existing multi-agency contracts on regional facilities include provisions that address issues such as this and I am fully confident that meeting additional local needs is a benefit that a County operated facility would be able to make more feasible. It will provide direct economic benefit to the existing users of the CMC facilities, and may be preferable to both the Regional Water Board and the California Coastal Commission. Although the Morro Bay/Cayucos wastewater issue is independent of the primary issues in considering a possible transition to County operations, it is still important to recognize that a transition can also help meet the needs of other local agencies in their efforts to align local decisions with regulatory requirements.

On other regulatory issues, the County's central role in our region positions us to help promote alignment between regulatory issues and local needs. The breadth of resources within the Public Works Department and knowledge of the regulations with the local issues, needs and environment place us in a position, and with the responsibility, to efficiently undertake necessary efforts to ensure that local infrastructure is developed and maintained to comply with increasingly complex regulations while meeting local needs.

CDCR Concerns

While I will refrain from expressing a position that I fully understand the concerns of CDCR that might exist in considering a transition to County operation, it is both understandable that concerns would exist and that some would be more obvious. What I have understood is that prior transitions to local agencies have not proven as beneficial as anticipated for CDCR. Certainly, any transition is subject to risks of the unknown, such as a new regulatory mandate that would increase costs to all parties. The key to addressing risks is to have contractual arrangements established up front to provide for equitable allocation of costs when future issues do arise. Mitigating risks is not difficult and our existing multi-agency contracts do have provisions for doing so.

More specifically, it is my understanding that other transitions were different than the CMC situation. In the CMC situation, no "retail services" exist. Unlike other situations where the local agency provided service to both their municipal customers and to the CDCR facility – which simply made the CDCR facility one of many customers and subject to the rate setting process at the discretion of the local council. Not surprisingly in those situations, the local City Council is under pressure to minimize rates and charges on residential and business customers, and likewise pressured to increase the rates and charges to institutions such as CDCR. This risk simply does not exist, nor would it surface even if the Morro Bay/Cayucos option prevailed as a preferred option due to the contractual nature of the inter-agency rights and responsibilities.

The existing cost sharing for the CMC facilities are established by contract, and not a rate-setting process, and they will continue to be contractually based. We should anticipate that some modifications to the existing contracts will be needed commensurate with a transition of operations, rather than pursuing a simple assignment of the existing CMC contracts to the County, which itself may not be possible. Nevertheless, since the existing CMC contracts with the various users have been extremely well thought, detail oriented, and agreed upon in the past, the number of issues to accomplish with the transition will be relatively few and addressing risks and concerns of CDCR should be well within our abilities to accomplish.

Transitional Issues

Lastly, some basic transitional issues will also need to be addressed. First, it is customary for local transitions to provide existing employees with the right to transition. I believe that this is important not only to respect the existing CMC employees who might need to transition to County employment, but to also help ensure that those with existing knowledge of the CMC facilities continue to provide maintenance and to ensure continuity. Salary and benefit comparisons will need to be prepared; doing so as part of evaluating a transition is important to avoid a negative financial impact on existing employees. Equipment currently being utilized would also need to be inventoried and separated between those that would be provided to the County for its operations versus equipment that would continue to be held by CMC for its own use. Lastly, security and access issues will need to be addressed, together with delineating the facilities that are within secured areas that the County would not maintain, but would continue to be part of the internal CMC system.

I am hopeful, Fred, that this letter provides you with some insight on my thoughts regarding a possible transition in the operations of the existing CMC facilities. I look forward to meeting with you on November 8, 2013.

Sincerely,

PAAVO A. OGREN
San Luis Obispo County Public Works Director

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Appendix B

Capacity Evaluation of the CMC Wastewater Plant
Carollo Engineers, December 2014

December 8, 2014

CITY OF MORRO BAY

CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WASTEWATER TREATMENT PLANT

TECHNICAL MEMORANDUM

FINAL
December 2014

710 WEST PINEDALE AVENUE • FRESNO, CALIFORNIA 93711 • P. 559.436.6616 • F. 559.436.1191

CITY OF MORRO BAY

CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WASTEWATER TREATMENT PLANT

TECHNICAL MEMORANDUM

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CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WASTEWATER TREATMENT PLANT

1.0 PURPOSE AND INTRODUCTION

The California Men's Colony (CMC) Wastewater Treatment Plant (WWTP) treats the entire flow from the CMC along with flows from several surrounding areas including the California Men's Colony East Facility, California Men's Colony West Facility, County of San Luis Obispo (County Jail, Juvenile Services, and County Education and Engineering, Maintenance and Support Services Facilities), Camp San Luis Obispo (California National Guard Base), and Cuesta College. Each of these organizations has a contractual agreement with CMC and agreed to capacity of the WWTP, which will be discussed in a later section of this report.

There is current interest in developing a regional WWTP to provide services to not only the existing service area but also to the communities of Morro Bay (City) and the Cayucos Sanitary District (CSD). This area is collectively referred to as MBCSD throughout this report. The purpose of this report is to reassess the capacity of each process component of the existing CMC WWTP and determine the upgrades necessary to provide adequate capacity for the existing service area and the flows and loads anticipated from the combined MBCSD service area.

2.0 BACKGROUND

The background section defines terminology used throughout the report, describes the existing CMC WWTP, identifies regulatory considerations, and summarizes the information available for this analysis including the design flows and loads.

2.1 Definitions and Terminology

This section provides a summary of the terminology used in this report.

- Aerobic solids residence time (aSRT)/total solids residence time (SRT)
- Ammonia (NH_3)
- Average annual (AA)
- Average dry weather (ADW)
- Biochemical oxygen demand (BOD)
- California Department of Corrections and Rehabilitation (CDCR)

- California Men's Colony (CMC)
- Concrete mortar lining (CML)
- Cubic feet per hour (cfh)
- Degrees Centigrade (°C)
- Ductile iron pipe (DIP)
- Filter Feed Pump Station (FFPS)
- Foot per second (fps)
- Gallons filtered per day per square foot (gfd)
- Gallons per day (gpd)
- Gallons per minute (gpm)
- Gallons per minute per square foot (gpm/sf)
- Horsepower (hp)
- Hydraulic loading rate (HLR)
- Hydraulic retention time (HRT)
- Microfiltration (MF)
- Million gallons per day (MGD)
- Milligrams per liter (mg/L)
- Milliliters per gram (mL/g)
- Millimeter (mm)
- Maximum month (MM)
- Mixed liquor suspended solids (MLSS)
- National Pollutant Discharge Elimination System (NPDES)
- ORP (Oxidation-reduction potential)
- Peak hour dry weather (PHDW)
- Peak hour wet weather (PHWW)
- Pounds per day (ppd)
- Polyvinyl chloride (PVC)

- Raw wastewater pumping station (RWWPS)
- Return activated sludge (RAS)
- Reverse osmosis (RO)
- Total dissolved solids (TDS)
- Total Kjeldahl Nitrogen (TKN)
- Total suspended solids (TSS)
- Ultraviolet (UV)
- Waste activated sludge (WAS)
- Welded steel pipe (WSP)
- Wastewater treatment plant (WWTP)
- Variable frequency drive (VFD)

2.2 Existing Facilities Description

The CMC WWTP treatment process consists of preliminary treatment through mechanical bar screens, influent pumping, aerated grit removal, and a perforated fine screen; secondary treatment via oxidation ditches and secondary clarifiers; tertiary treatment with continuously backwashed filters and a recently constructed in-channel ultraviolet (UV) disinfection system; solids storage in an existing anaerobic sludge digester; and dewatering with centrifuges.

2.3 Regulatory Considerations

The effluent from the CMC WWTP is discharged to Chorro Creek and is regulated by the Central Coast Regional Water Quality Control Board under NPDES Permit No. CA0047856. The NPDES permit limitations for biochemical oxygen demand (BOD), total suspended solids (TSS), turbidity, nutrients, and total dissolved solids (TDS) are summarized in Table 1. The effluent concentration limits are typical for all constituents with the exception of a more stringent maximum daily limit of 10 milligrams per liter (mg/L) for total nitrogen.

Regulatory limits are typically listed as both a concentration and a mass load. This analysis evaluates the feasibility of accepting additional flow from MBCSD at the CMC WWTP. The additional flow from MBCSD will require that the existing mass load limits increase based on the existing concentration limit and the new total flow rate.

Table 1	NPDES Permit Effluent Limitations Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay			
		Effluent Limitations		
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
BOD	mg/L	10	30	50
	ppd	100	300	500
TSS	mg/L	10	30	50
	ppd	100	300	500
Turbidity	NTU	10	--	20
Total Nitrogen (as N)	mg/L	--	--	10
	ppd	--	--	100
Nitrite	mg/L	--	--	1.0
TDS(1)	mg/L	500		

Notes:
(1) TDS limit based on a surface water limitation. For this analysis, it was assumed that no dilution credits would be allowed; therefore, the surface water limit is the effluent limit.
(2) ppd = pounds per day

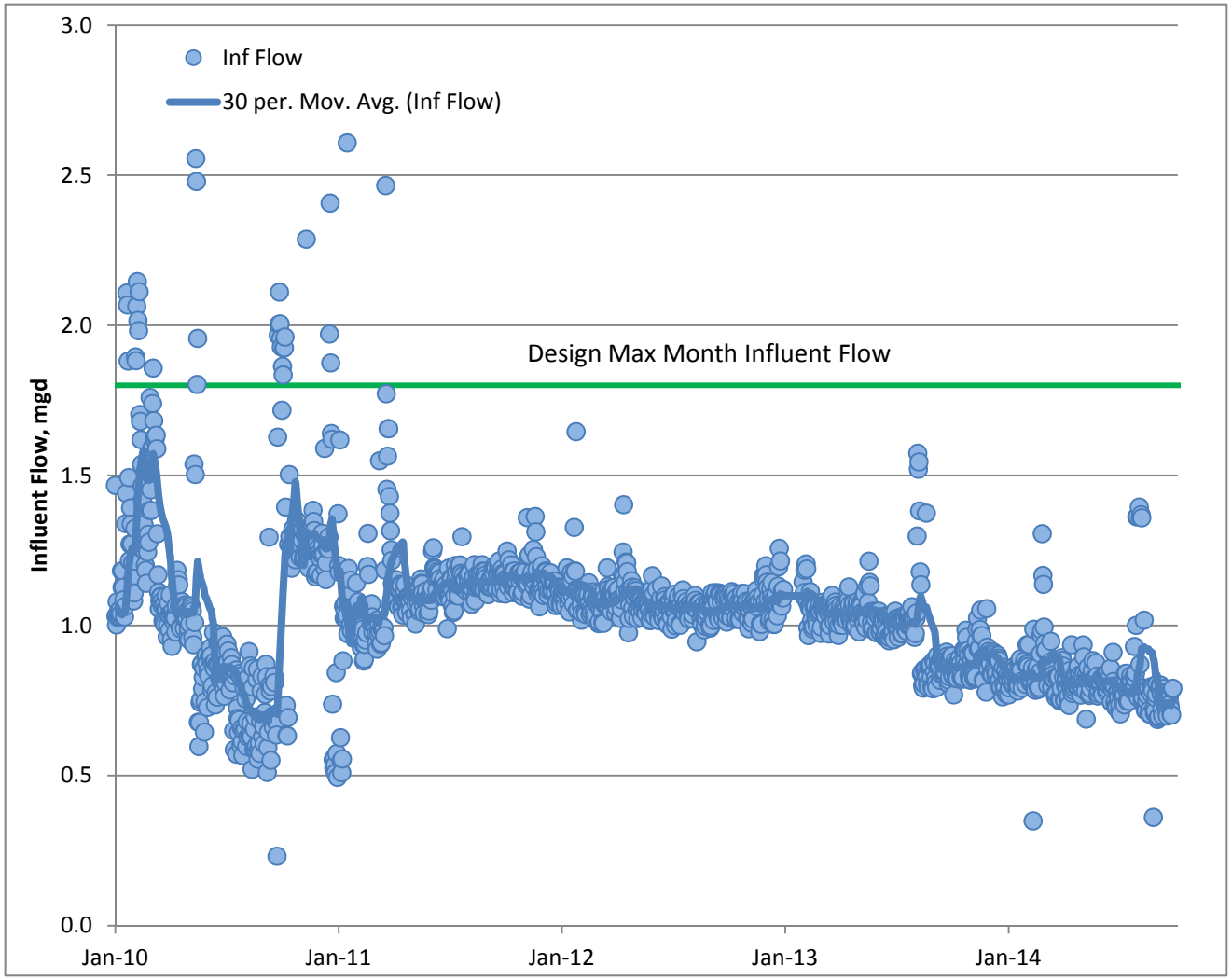
2.4 Summary of Available Data for the CMC Facility

CMC provided daily data for the years 2010 through 2014. The influent data included flow, BOD, and TSS concentrations. The effluent data included BOD, TSS, total nitrogen, and ammonia concentrations. The facility does not measure ammonia or total nitrogen concentrations in the influent.

Figures 1 and 2, along with Table 2, summarize the raw influent flow, BOD, and TSS loads at the CMC facility for the years 2010 through 2013. Figure 2 and Table 3 show the data without the influence of outlier concentrations, calculated as any value exceeding two standard deviations above the mean.

Table 2 summarizes the data in Figure 1 showing that while the average annual (AA) and maximum month (MM) flows have generally decreased from 2010 through 2013 the AA and MM BOD and TSS loads have varied significantly, with the highest loads occurring in 2012.

Figure 3 summarizes the effluent total nitrogen concentrations for the treatment plant.



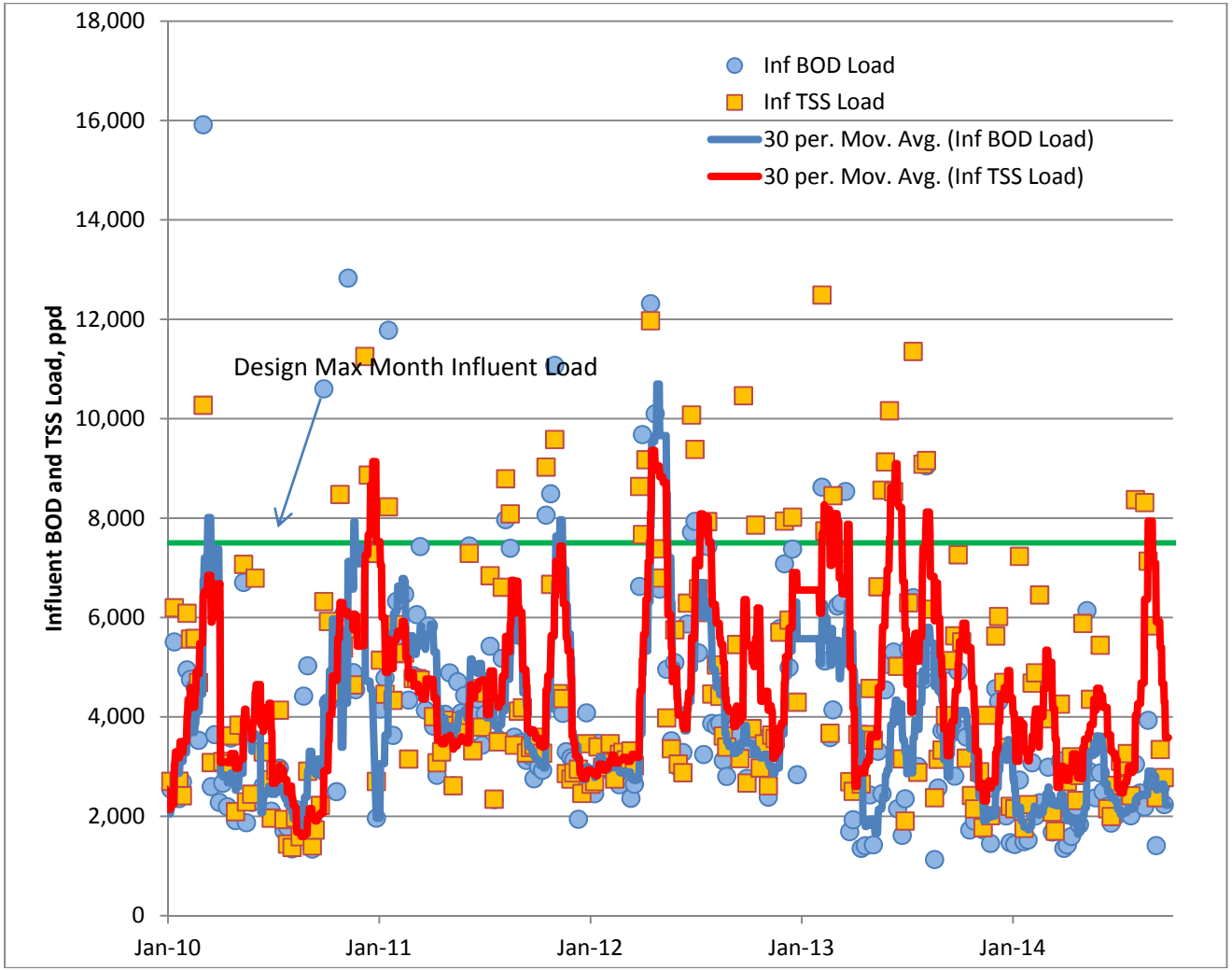
MONTHLY INFLUENT FLOW

FIGURE 1

CITY OF MORRO BAY
CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WWTP

carollo

pw://Carollo/Documents/Client/CA/Morro Bay/9723A00/Deliverables/Figure 1



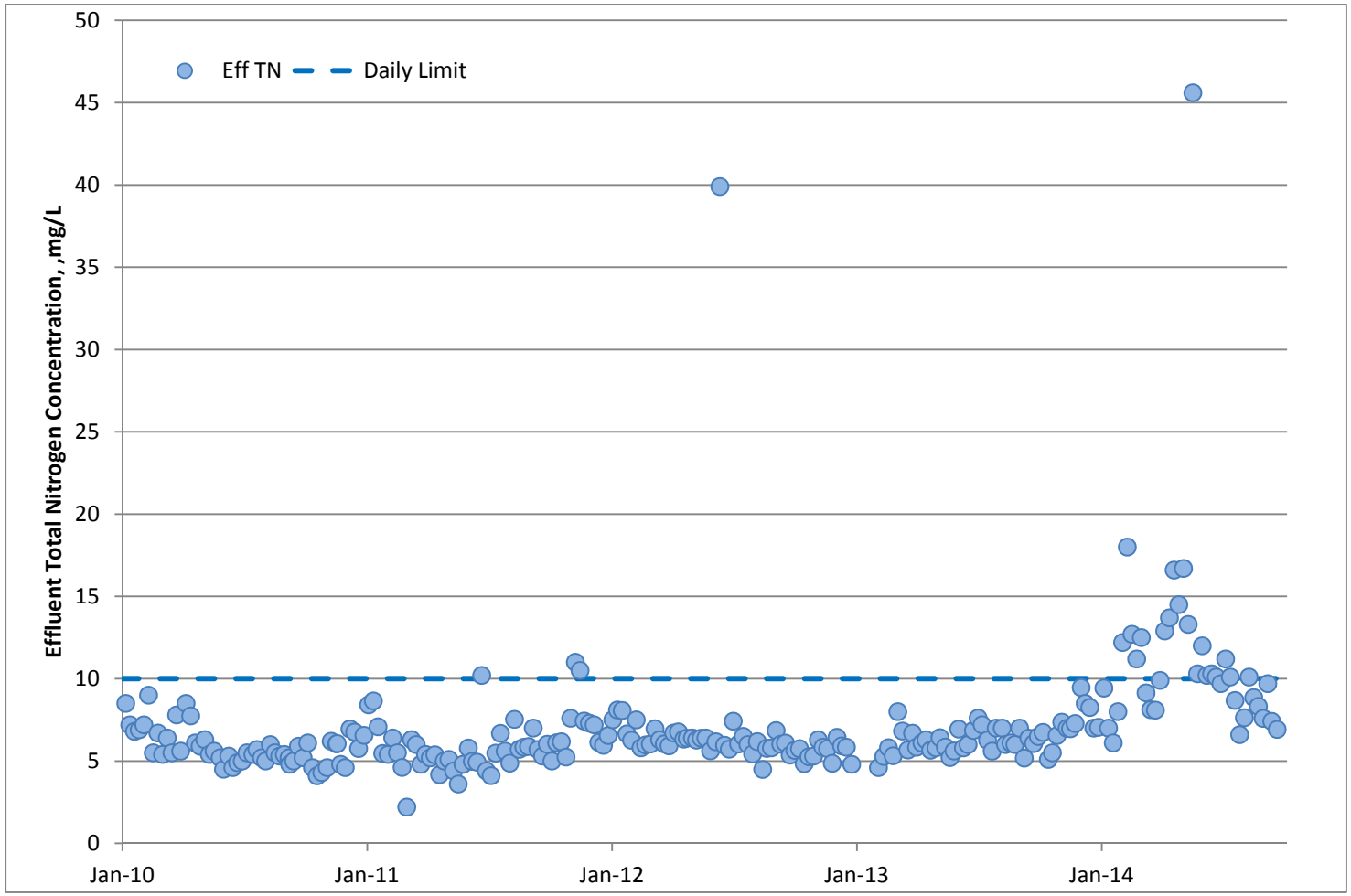
MONTHLY INFLUENT BOD AND TSS LOAD

FIGURE 2

CITY OF MORRO BAY
CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WWTP

carollo

pw://Carollo/Documents/Client/CA/Morro Bay/9723A00/Deliverables/Figure 2



EFFLUENT TOTAL NITROGEN CONCENTRATIONS

FIGURE 3

CITY OF MORRO BAY
CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WWTP

carollo

pw://Carollo/Documents/Client/CA/Morro Bay/9723A00/Deliverables/Figure 3

Table 2	Influent Flow and Loads Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay					
	Flow, MGD		BOD[1], mg/L		TSS[1], mg/L	
Year	AA[2]	MM[3]	AA	MM	AA	MM
2010	1.10	1.54	3,800	7,100	4,300	7,500
2011	1.13	1.21	4,700	6,100	4,600	6,200
2012	1.08	1.13	4,500	10,700	5,100	9,100
2013	0.97	1.07	3,600	5,700	5,200	8,100

Notes:
(1) Data excludes outliers, which were determined to be values exceeding two standard deviations above the mean.
(2) AA = Average annual
(3) MM = Maximum month

No data has been provided on operating conditions at the treatment plant including wastewater temperature, solids retention time (SRT), mixed liquor suspended solids (MLSS) concentration, sludge volume index (SVI), and waste activated sludge (WAS) flows or loads. A phone conversation with CMC on November 3, 2014 indicated that the WWTP typically operates with both oxidation ditches and both secondary clarifiers in service. Originally, the digester was planned to be used for WAS storage; however, the current practice is to directly dewater WAS. Additionally, CMC provided the following typical values:

- Minimum monthly wastewater temperature is approximately 19 degrees Centigrade (°C)
- SVI averages approximately 130 milliliters per gram (mL/g)
- MLSS concentrations average between 3,600 and 3,800 mg/L
- Wasting occurs approximately three times per week at a concentration of around 7,000 mg/L for an average daily WAS volume of 60,000 gallons per day (gpd)

2.5 Design Flows and Loads

This section summarizes the design flows and loads for the CMC and MBCSD service areas.

2.5.1 Existing CMC Service Area

Table 3 summarizes the CMC service area influent flow and loads from the 2001 design.

Table 3	Design CMC Influent Flow and Loads Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay				
Parameter	**ADW(1)**	**AA**	**MM**	**PHDW(2)**	**PHWW(3)**
Flow, MGD	1.2	1.3	1.8	2.4	5.2
BOD, ppd		5,400	7,500		
TSS, ppd		5,400			
Ammonia, ppd		450			

Notes:
(1) ADW = Average dry weather
(2) PHDW = Peak hour dry weather
(3) PHWW = Peak hour wet weather

2.5.2 Summary of Known Existing Service Contracts

Based on information obtained from the County of San Luis Obispo (County), the agreements in place between CMC and other entities served by the WWTP are summarized in Table 4.

Table 4	Existing Service Contracts Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay	
Party	**Date**	**Capacity Commitment (gpd)**
San Luis Obispo Community College District(1)	1971	80,000
California Army National Guard, Camp San Luis Obispo (CSLO)(2)	1999	125,000
County of San Luis Obispo(3)	2000	215,000

Notes:
(1) Based on 80 percent of potable water commitment of 100,000 gpd
(2) Based on 80 percent of potable water commitment of 140 acre-feet per year
(3) Based on 240 acre-feet per year

At this time, it is not known if other agreements to provide wastewater service are in place. Additionally, adequate flow data is not presently available to determine what amount of the above capacity commitments are currently being served by the WWTP.

2.5.3 Combined City of Morro Bay and Cayucos Sanitary District

Table 5 summarizes the influent flow and loads for the MBCSD based on information from Amendment 2 (MWH, July 2011).

Table 5	Design City Influent Flow and Loads Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay				
Parameter	**ADW**	**AA**	**MM**	**PHDW**	**PHWW**
Flow, MGD		1.5	2.9		8.0
BOD, ppd		3,500	5,500(1)		
TSS, ppd		3,800	6,300(1)		
TKN, ppd		600	940		

Notes:
(1) Peak season dry weather

3.0 PROCESS CAPACITY EVALUATION METHODOLOGY

This section summarizes the methods used to evaluate the process capacity of each unit process.

3.1 "Whole-Plant" Process Simulation

As is shown in Figure 2, the CMC influent MM BOD and TSS loads have exceeded the 2001 design criteria in 2012 and again for TSS in 2013. Due to these higher than anticipated influent loads, it was assumed that the CMC facility does not have any excess secondary capacity.

A "whole-plant" simulator was created in BioWin and used to check the capacity of the existing secondary treatment facilities as well as assess the capacity requirements for the additional oxidation ditches. The model assumed the planning-level influent flow and load data for the MBCSD (Table 4). Since no process data is available for the MBCSD flows and loads, the model relied on the BioWin default wastewater characteristics. The model was initially calibrated around the CMC influent flow and loads and the conversation with plant staff regarding typical MLSS concentrations. A minimum monthly temperature of 15°C was selected based on previous work done for the MBCSD Facility Master Plan (Carollo, September 2007) and the design aSRT was set to 15.7 days based on the 2001 CMC design criteria.

3.2 Secondary Clarifier State-Point Analysis

The capacity requirement for the secondary clarification process was evaluated using a state point analysis. Since no SVI data was available for the MBCSD flow, the state point analysis assumed an SVI of 150 mL/g and a clarification safety factor of 1.15.

3.3 Other Analyses

The capacity requirements for preliminary treatment, tertiary filtration, and disinfection of the combined MBCSD flow were determined based on the projected PHWW flow of 8.0 MGD and the CMC WWTP's current design criteria for these processes. The capacity requirement for dewatering the WAS as a result of the MBCSD flow was determined based on the MM WAS projection from the BioWin model with a factor of 1.2 applied to create a maximum week projection. The capacity requirements for the microfiltration – reverse osmosis (MF-RO) process was determined based on a mass balance of published effluent TDS data from CMC and planning-level TDS data provided from the City for the combined MBCSD flows. The RO salt rejection was assumed to be 97 percent based on typical values for a Hydranautics ESPA2 membrane.

4.0 PROCESS CAPACITY EVALUATION RESULTS

This section summarizes the results of the process capacity evaluation for each unit process.

4.1 Preliminary Treatment

Preliminary treatment at the CMC WWTP consists of mechanical bar screens followed by influent pumping, aerated grit removal, and fine screening. The existing preliminary treatment facilities were generally sized for a PHWW flow of 5.46 MGD (the fine screens were sized for a PHWW flow of 5.6 MGD). Since the projected CMC PHWW flow is 5.2 MGD, the existing preliminary treatment facilities do not have sufficient capacity to handle the MBCSD flows. Additionally, there is not sufficient space available near the existing preliminary treatment facilities to accommodate expansion. Thus, a new parallel preliminary treatment facility is proposed to handle the MBCSD's projected PHWW flow of 8.0 MGD.

The CMC WWTP currently has two 3/8-inch mechanically cleaned bar screens with a total capacity of 5.46 MGD followed by one 6 millimeter (mm) band screen with a total capacity of 5.6 MGD. The fine screen was added to the CMC WWTP in the latest major expansion to help deal with small plastics that were passing through the 3/8-inch climber screens and fouling the tertiary filters. To treat the MBCSD flow, a new screening facility with three screening channels will be added, allowing for one of the proposed new screens to operate as a standby during AA and MM conditions. A third screen channel is required to accommodate the design PHWW flow of 8.0 MGD. It has been assumed that these screens will be equipped with smaller effective openings than the existing climber screens such that the MBCSD flows will not require a subsequent fine screening step.

The CMC WWTP currently has two duty and one standby raw wastewater pumps with a firm capacity of 5.46 MGD. To treat the MBCSD flow, a parallel influent pump station will be

added with three duty pumps and one standby pump. Each pump will have a capacity of 2.67 MGD, resulting in a pump station with a firm capacity of 8.0 MGD.

The CMC WWTP currently has one aerated grit chamber, with a total capacity of 5.46 MGD sized to allow for a PHWW flow hydraulic retention time (HRT) of 3.5 minutes. To treat the MBCSD flow, one new aerated grit chamber is proposed, sized for a 3.5-minute HRT at the PHWW flow of 8.0 MGD.

4.2 Secondary Treatment

Secondary treatment at the CMC WWTP consists of two 1.76 million gallon (MG) oxidation ditches followed by two 65-foot diameter secondary clarifiers. Since the CMC facility has observed recent MM loads in excess of the plants original design criteria, the existing oxidation ditches and secondary clarifiers do not have sufficient capacity to handle any of the combined MBCSD flows and loads.

Based upon these assumptions described above for the state point analysis, and assuming a PHWW flow of 8.0 MGD (Table 5), three new 65-foot diameter secondary clarifiers would be needed to allow for a maximum MLSS concentration of 3,000 mg/L. The resulting state point curve is shown in Figure 4.

Based on this maximum MLSS concentration, the assumed minimum design aSRT of 15.7 days listed in the 2001 design of the CMC facility, and the assumed minimum month wastewater temperature of 15ºC, two new oxidation ditches would be required to treat the MBCSD flows and loads. The BioWin output detailing the sizing of these facilities is included in Appendix A.

Additional precautions should be taken in the design of the secondary system due to the daily effluent total nitrogen limit of 10 mg/L. These include:

- Additional data is needed from both the MBCSD and CMC to evaluate the variation in influent temperature and flows and loads (including influent TKN).
- The oxidation ditches should be designed with an ammonia-based aeration control scheme including online dissolved oxygen (DO), TSS, and ammonia and nitrate probes. This additional level of control will aid the plant staff in responding to problems with nitrification and denitrification as they occur.
- A methanol feed facility should be considered to allow for supplemental BOD should a drop in influent BOD occur. Since additional analysis is needed to confirm the need for methanol addition, the cost for this methanol facility has not been included in the cost estimates presented in a latter section of this report.

4.3 Tertiary Treatment and Disinfection

This section provides a summary of the process capacity evaluation for the tertiary filtration, MF-RO and UV disinfection processes.

4.3.1 Tertiary Filtration

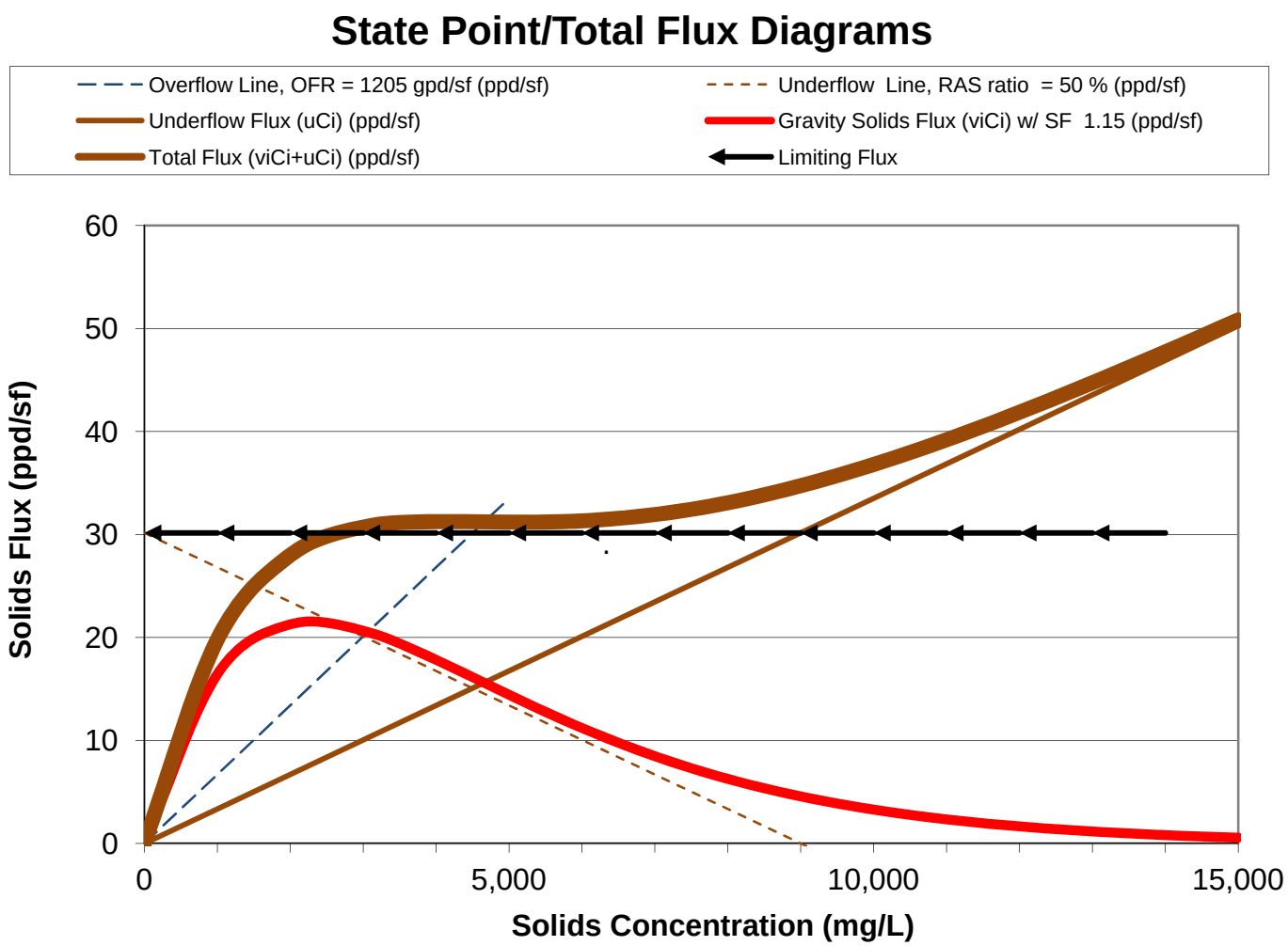
The secondary effluent is filtered and disinfected prior to reuse and discharge. The existing filtration and disinfection processes were sized for a PHWW flow of 5.2 MGD. Since the projected CMC PHWW flow is 5.2 MGD, the existing filtration and disinfection facilities do not have sufficient capacity to handle the MBCSD flows. New filters and disinfection facilities are proposed to handle the MBCSD's projected PHWW flow of 8.0 MGD.

The CMC WWTP currently has eight continuous backwash filters (Parkson DynaSand®) that are sized based on a peak flow hydraulic loading rate of 9.0 gallons per minute per square foot (gpm/sf). To treat the MBCSD's PHWW flow of 8.0 MGD at a design hydraulic loading rate of 9.0 gpm/sf, 13 new filters are required. One additional standby unit is proposed to provide standby capacity during peak flows, bringing the total number of proposed filters to 14.

4.3.2 Microfiltration and Reverse Osmosis Membranes

Membrane filtration differs from the existing tertiary filters in several significant ways. First, the continuous backwash filters at the plant are a depth filtration method that relies on a certain amount of granular media to create a filter bed thick enough to remove the suspended particles. Water flows between and around this filter media but the different path ways are created by the shape of the media resting against itself. Membrane filtration is a surface filtration method, meaning that the suspended materials are removed from the process stream at the surface of the membrane. The effluent flows through the membrane via microscopic holes known as pores. Each pore in a specific membrane is the same size creating what is known as a positive barrier, that is, any particle larger than the pore cannot pass through the membrane. This feature of membranes makes them very useful for producing consistent, high quality effluent.

Membranes are grouped based on their pore size and the constituents that pore size will remove. Low-pressure membranes include microfiltration (MF) and ultrafiltration (UF) membranes that are used to remove particulate matter from liquid, whereas high-pressure membranes including nanofiltration (NF) and reverse osmosis (RO) are used to remove dissolved constituents from water. The smaller the pore size and the greater the concentration of the constituents to be removed, the more pressure is required to drive water through the membranes.



Notes: Assumes 3 – 65 ft diameter secondary clarifiers, a SVI of 150 mL/g a PHWW flow of 8 MGD and a clarification safety factor of 1.15.

STATE POINT ANALYSIS FOR CITY FLOWS

FIGURE 4

CITY OF MORRO BAY

CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WWTP

carollo

pw://Carollo/Documents/Client/CA/Morro Bay/9723A00/Deliverables/Figure 4

Table 6 shows an estimated combined effluent TDS of 837 mg/L. This estimated effluent TDS exceeds the receiving water quality standard of 500 mg/L. It is assumed that no dilution credits will be granted, so the final effluent TDS must be reduced before discharge. This analysis used a target effluent TDS of 450 mg/L to provide a factor of safety of 1.1.

TDS are largely comprised of different soluble salts. Dissolved salt ions are very small and require RO membranes with the smallest membrane pore size for removal. RO membranes however, require significant pretreatment to prevent damage so they are frequently preceded by low pressure membranes to remove any remaining particulate matter.

Table 6 Planning Level Effluent TDS Data
Capacity Evaluation of the California Men's Colony WWTP
City of Morro Bay

	City	CMC	Combined
Effluent MM Flow, MGD(1)	2.9	1.8	4.7
Effluent TDS, mg/L	942(2)	669(3)	837(4)

Notes:
(1) Planning level values presented in Tables 3 and 5.
(2) Data was obtained from lab results from six 24-hour composite samples taken between February 8, 2012 and February 14, 2012. Tests were conducted by FGL Environmental and Agricultural Analytical Chemists.
(3) Maximum month value based on published DMR data from July 2009 through September 2014.
(4) Data calculated based on a simple mass balance.

4.3.2.1 Microfiltration Membrane System

As discussed previously, MF membranes strictly remove particulate matter and do not provide any desalination, however they are installed ahead of RO membranes to protect them. The MF influent will be drawn from the tertiary filter effluent to provide a more consistent feed water quality and to extend the membrane backwash cycle times.

Depth filtration, such as the existing tertiary filters, uses a hydraulic loading rate to quantify the amount of flow a filter is capable of treating. Microfiltration membranes use a similar metric known as flux. Flux is measured by the number of gallons filtered per day per square foot (gfd) of membrane surface area. The higher the flux the fewer membranes are required to treat the same volume of water. However, higher flux rates push more water through the membranes, which results in more fouling and more frequent backwashing. The MF membranes will operate at a flux of approximately 25 gfd.

As particulate matter is deposited on the surface of the membrane, the pressure required to push water increases. Eventually the membrane needs to be flushed with water and air in the reverse direction to remove this accumulated material. The membranes need to be backwashed with filtrate, water that has already gone through the membranes. The spent washwater with the accumulated solids is returned to the head of the WWTP. The more

frequently the membranes need to be backwashed, the more water is used. For this analysis, it was assumed that the MF membranes have an efficiency of 95 percent.

4.3.2.2 Reverse Osmosis Membrane System

The RO membrane filtration process is where the salt ions that contribute to TDS are removed from the process water. This analysis utilized the Hydranautics ESPA2 membranes with a typical assumed salt rejection rate of 97 percent. RO membranes reject much more material and operate at a much lower flux rate, typically around 10 gfd.

RO membranes utilize a cross flow pattern to continuously remove the dissolved material as it accumulates on the face of the membranes instead of an intermittent backwash like the MF membranes. This method of continuous backwashing is required due to the amount of material being rejected. This concentrated wash water, frequently called brine, has levels four to five times higher than the RO influent based on the efficiency of the membrane system. This analysis assumed a total recovery of 80 percent.

4.3.2.3 MF and RO Membrane System Sizing

Membranes remove nearly all of the target contaminant; however, the effluent from the plant only needs to comply with the receiving water quality standard. The design MM daily combined flow for CMC and MBCSD is 4.7 MGD. If the RO process was sized to treat all 4.7 MGD, the effluent TDS would be approximately 25 mg/L. Instead of treating the entire flow a portion will bypass the RO and be blended together downstream of the membranes. To achieve the target concentration, approximately 48 percent of the effluent needs to be filtered through the RO process.

To provide redundancy during times when one of the membrane racks is down for maintenance or cleaning, an additional unit is installed. Table 7 shows both the firm and total capacity required to comply with the discharge requirements during the MM daily flow condition. For this analysis, it is assumed that the brine will be disposed through an extended brine disposal pipeline that connects to the existing ocean outfall.

4.3.3 <u>UV Disinfection</u>

The CMC WWTP currently has two UV disinfection channels, each with a capacity of 2.6 MGD, for a total capacity of 5.2 MGD. To treat the MBCSD's PHWW flow of 8.0 MGD, three new UV channels of roughly the same size as the existing will be required.

4.4 Biosolids Handling

The CMC WWTP currently directly dewaters WAS prior to disposal using two centrifuges, each sized for a flow rate of 200 gpm and a 35 hour per week operational schedule. Since the CMC WWTP has observed influent solids loads in excess of the original design criteria, it is assumed that the current dewatering facility does not have excess capacity to treat the MBCSD flow and retain the same level of redundancy currently provided by the existing

dewatering facility. Two new centrifuges are proposed to dewater the MBCSD WAS assuming a flow rate of 200 gpm, a WAS concentration of 7,000 mg/L, and the same 35 hour per week operational schedule. With four centrifuges, the facility will have the ability to handle the maximum week WAS production anticipated for the combined MBCSD and CMC flows with one unit out of service.

Table 7 Planning Level MF-RO Sizing
Capacity Evaluation of the California Men's Colony WWTP
City of Morro Bay

	MF	RO	Bypass MF-RO	Combined Effluent to Chorro Creek	RO Brine
Firm Capacity, MGD	2.8	2.0(1)	2.2	4.2	0.5
Total Capacity, MGD	3.5	2.5	-	-	-
Effluent TDS, mg/L	837(2)	25(3)	837(2)	450(4)	3,350

Notes:
(1) MF and RO System size is stated based on total throughput
(2) Based on estimated combined effluent TDS shown in Table 6
(3) Calculated assuming 80 percent recovery through the RO process
(4) Calculated assuming 97 percent salt rejection through membrane
Data calculated based on a simple mass balance

5.0 HYDRAULIC CAPACITY EVALUATION

5.1 Methodology

In order to complete the hydraulic evaluation of the existing CMC WWTP and determine the necessary improvements and plant configuration changes required to accommodate the additional MBCSD flows, a hydraulic model was developed. The model was developed using Carollo's proprietary *Hydraulix*® tool. The following major steps were involved in developing the hydraulic model.

- **Step 1**: Identify flow pathways through the plant, from inlet to discharge at the Discharge Wet Well located in the previous chlorine contact basin.
- **Step 2**: In each pathway, identify the hydraulic control points, which define the segments for each pathway.
- **Step 3**: In those instances where more than one flow pathway exists per segment, select the pathway that has the highest likely headloss (i.e., defines the most restrictive or critical pathway).

- **Step 4**: For each segment, identify the headloss elements (pipeline, channel, weir, sluice gate, etc.), and, starting at the downstream control point, use the associated *Hydraulix*® calculation modules as "building blocks" to construct the model based on dimensions and elevations from the conformed drawings.
- **Step 5**: Integrate the various segments by identifying the appropriate flow split and recycle streams as influent flow to the plant is separated out between individual structures within the plant.

The detailed hydraulic analysis calculations are included in Appendix B.

5.2 Assumptions

5.2.1 Roughness Coefficients

In addition to the physical attributes of the various flow-conveyance structures (i.e., diameter, width, length, elevation, slope, etc.), the model hydraulic calculations require roughness coefficients for channels and pipelines. Since headloss through these structures increases with age, conservative coefficients were selected to reflect that condition, even though some of these structures are still relatively new. The selected roughness coefficients used for this analysis include the following:

- Manning coefficient, n (channels) = 0.013
- Absolute roughness, e (pipelines) = 0.004 feet

5.2.2 Control Point Elevations

The control point elevations are a critical input parameter. All headloss through a segment is added to the control point elevation to determine the anticipated water surface elevation in the upstream control structure. The control point elevations were derived from the conformed drawings. The critical control point elevations are shown in Table 8.

5.2.3 Common Hydraulic Grade Line

The conceptual design and hydraulic evaluation was completed with the assumption that the new improvements presented in the previous section will be operated at the same hydraulic grade line as the existing plant. This will allow the plant to operate as a single wastewater facility (as opposed to separate, parallel plants) and give operations staff the greatest amount of redundancy and flexibility. This assumption requires that flow be combined and split equally between each stage of treatment. Achieving a common hydraulic grade line for both the existing and new facilities complicates the site layout for the necessary improvements as the distance between processes needs to be as similar as possible to prevent surcharging a weir and providing unequal flow to a downstream process. The site layout presented in a latter section of this report was developed to accommodate these hydraulic challenges.

Table 8	Hydraulic Analysis Control Points Capacity Evaluation of the California Men's Colony Wastewater Treatment Plant City of Morro Bay
Control Point Location	**Elevation, ft**
Oxidation Ditch Splitter Structure Weir(1)	210.75
Oxidation Ditch Effluent Weir(1)	209.61
Mixed Liquor Splitter Structure Weir(1)	208.68
Secondary Clarifier Effluent Weir(1)	207.68
Tertiary Filter Effluent Trough(1)	202.57
UV Disinfection Effluent Weir(2)	199.44

Notes:

(1) Elevations obtained from the California Men's Colony San Luis Obispo, California Wastewater Collection/Treatment Upgrade Record Drawings (December 2007).

(2) Elevation obtained from the final California Men's Colony – CMC Wastewater Treatment Plant Disinfection Upgrade Drawings (May 09, 2012).

5.3 Evaluation Results

The CMC WWTP is capable of passing the new PHWW flow with the addition of several improvements. The revised WWTP hydraulics do not deviate significantly from the original design between the inlets of the oxidation ditches through the secondary clarifiers. However, the existing secondary clarifier effluent lines connect and run a short distance to the existing tertiary filters. Therefore, a new filter feed splitter box would be required to distribute flow between the existing and future filter galleries. However, it would be difficult to account for the different number of filters operating in each gallery. Relocating this filter feed box to a site equidistant from the existing and proposed secondary clarifiers, results in too much additional headloss to continue to supply the filters via gravity.

To rectify this situation, the secondary clarifier effluent lines will flow by gravity into a new filter feed pump station (FFPS). The FFPS allows the secondary clarifiers to gravity flow into the pump station wet well where the filter pumps lift the secondary effluent into a new filter feed distribution manifold. The manifold will connect to both the existing and new filter galleries with magnetic flow meters and flow control valves at the entrance to each to distribute flow based on the number of filters currently in run status at each location. The FFPS and new filter gallery are identified in the site layout included in a latter section of this report. The cost for this new pump station is also included as part of the tertiary filter costs presented in a latter section of this report.

6.0 IMPROVEMENTS NECESSARY TO ACCOMMODATE ADDITIONAL FLOW

This section summarizes the design criteria and conceptual facility layout for the required improvements necessary to accommodate the additional flow from the MBCSD.

6.1 Design Criteria

The design criteria for the proposed improvements are summarized in Table 9.

Table 9 Design Criteria
Capacity Evaluation of the California Men's Colony WWTP
City of Morro Bay

Parameter	Existing[1]	New	Total
Influent Flows and Loads			
AA Flow, MGD	1.3	1.5	2.8
MM Flow, MGD	1.8	2.9	4.7
Peak Flow, MGD	5.2	8.0	13.2
MM BOD, ppd	7,500	5,500	13,000
MM TSS, ppd	7,500	6,300	13,800
MM TKN, ppd	950[2]	940	1,890
Preliminary Treatment			
Mechanical Bar Screens			
Number	2	3+0	
Bar Spacing, inches	3/8	1/4	2 at 3/8; 3 at 1/4
Capacity (each), MGD	2.73	2.67	
Channel Width, feet	2.5	2	
Raw Wastewater Pumps			
Number	2+1	3+1	5+2
Type	Dry Pit Submersible	Dry Pit Submersible	
Capacity (each), MGD	2.73	2.67	3 at 2.73; 3 at 2.67
Firm Capacity, MGD	5.46	8.0	13.46

Table 9	**Design Criteria** **Capacity Evaluation of the California Men's Colony WWTP** **City of Morro Bay**		
Parameter	**Existing[(1)]**	**New**	**Total**
Fine Screens			
Number	1	0	1
Screen Perforations, mm	6	--	6
Capacity, MGD	5.6	--	5.6
Washer compactor			
Number	1	--	1
Capacity, cfh	86	--	86
Motor Size, hp	3	--	3
Grit Chamber			
Number	1	1	2
Type	Aerated	Aerated	Aerated
Length, feet	14	18	1 at 14; 1 at 18
Depth, feet	10	10	10
Width, feet	12	15	1 at 12; 1 at 15
Peak Capacity, MGD	5.46	8.0	13.46
HRT (at PHWW flow), minutes	3.5	3.5	3.5
Secondary Treatment			
Oxidation Ditch			
Number	2	2	4
Aeration Type	Mechanical	Mechanical	Mechanical
Side Water Depth, feet	13	13	13
Basin Volume (each), MG	1.76	1.76	1.76
Anoxic Volume (each), MG	0.35	0.35	0.35
Aerobic Volume (each), MG	1.41	1.41	1.41
Total, MG	3.52	3.52	7.04
Anoxic mixers			
Number (per ditch)	1	1	1
Drive Motor, hp	15	15	15
Drive Type	Constant Speed	Constant Speed	Constant Speed

Table 9	**Design Criteria** **Capacity Evaluation of the California Men's Colony WWTP** **City of Morro Bay**		
Parameter	**Existing[1]**	**New**	**Total**
Surface Aerators			
Number (per ditch)	2	2	2
Type	Surface	Surface	Surface
Drive Type	Two Speed	VFD[3]	VFD
Drive Motor, hp	60/125	125	125
Online Monitoring Equipment			
Ammonia Probe (total)	0	1	1
Nitrate Probe (total)	0	3	3
TSS Probe (total)	0	2	2
ORP[4] Probe (total)	0	2	2
DO Probe (total)	0	2	2
Ammonia-Based SRT Control System	0	1	1
Secondary Clarifiers			
Sludge Removal Mechanism Type	Spiral Scraper	Spiral Scraper	Spiral Scraper
Number	2	3	5
Diameter, feet	65	65	65
Side Water Depth, feet	14	14	14
Surface Area (total), sf	6,636	9,954	16,590
RAS/WAS Pump Station			
Number	2+1	3+1	5+2
Type	Centrifugal	Centrifugal	Centrifugal
Pump Capacity, each	1.13	1.3	3 at 1.13; 4 at 1.3
Firm Capacity, MGD	2.26	4	6.26
Tertiary Treatment and Disinfection			
Filter Feed Pump Station			
Number	0	2+1	2+1
Type	0	Vertical Turbine	Vertical Turbine
Pump Capacity, each	0	6.6	6.6
Firm Capacity, MGD	0	13.2	13.2

Table 9	**Design Criteria** **Capacity Evaluation of the California Men's Colony WWTP** **City of Morro Bay**		
Parameter	**Existing[1]**	**New**	**Total**
Filtration			
Type	Continuous Backwash (DynaSand®)	Continuous Backwash (DynaSand®)	Continuous Backwash (DynaSand®)
Number	8	14	22
Surface Area (each), sf	50	50	50
Loading Rate (at PHWW flow), gpm/sf	9.0	9.0	9.0
MF Membranes			
Permeate capacity, MGD	0	2.8	2.8
Recovery, percent	0	95	95
Flux, gfd	0	25	25
RO Membranes			
Permeate capacity, MGD	0	2.0	2.0
Recovery, percent	0	80	80
Flux, gfd	0	11	11
UV Disinfection			
Type	Low Pressure, High Output	Low Pressure, High Output	Low Pressure, High Output
Configuration	Open Channel	Open Channel	Open Channel
Channels	2	3	5
Capacity per Channel, MGD	2.6	2.67	2.6
Total Capacity, MGD	5.2	8.0	13.2
Design UV dose, mJ/cm^2[5]	100	100	100
Biosolids Handling			
Dewatering			
Type	Centrifuge	Centrifuge	Centrifuge
Number	1+1	2	3+1
Solids Loading, ppd	4,600	5,000[6]	9,600
Hydraulic Loading Rate, gpm/unit	200	200	200
Operating Cycle during Maximum Week, hours/week	35	35	35

Table 9	Design Criteria Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay			
	Parameter	**Existing(1)**	**New**	**Total**

Notes:

(1) Based on the 2001 Wastewater Collection/Treatment Upgrade Design Criteria Drawing G03.
(2) The design criteria table from the 2011 design listed an AA NH_3 load of 450 ppd. The maximum month TKN load was calculated assuming that a NH_3/TKN ratio of 0.66 and a MM/AA TKN load ratio equal to the design MM/AA BOD load ratio.
(3) VFD = Variable frequency drive
(4) ORP = Oxidation-reduction potential
(5) mJ/cm^2 = Millijoule per square centimeter
(6) The anticipated maximum week solids load was calculated by assuming a MW/MM WAS load peak factor of 1.2.

6.2 Facility Layout

The first criterion for locating the proposed improvements was to place them where they could be physically accommodated on the site. While the site does have some available space, it is fairly constrained given the size of the required improvements (i.e., oxidation ditches and secondary clarifiers). With the larger improvements located on the site, the remaining improvements were located to accommodate the hydraulic grade line for the existing facilities. Lastly, wherever possible, the improvements were located to minimize the additional yard piping required. Minimizing the additional yard piping through the facility layout reduces cost and minimizes construction impacts to the existing WWTP.

It should be noted that any potential environmental constraints were not considered when developing the layout. An environmental analysis of the site is outside the scope of this report, and should be completed during future planning phases.

It is anticipated that the new conveyance pipeline will enter the site from the northwest. The new influent pumping and screening facility, and aerated grit chamber required to accommodate the MBCSD flows are located in a clear area immediately northwest of the existing preliminary treatment facilities.

A new oxidation ditch splitter structure will be located across the road from the existing fine screen and oxidation ditches. At this structure, screened wastewater from CMC and MBCSD will combine with RAS from both the existing and new secondary clarifiers so that it can be evenly split between the four oxidation ditches. The new oxidation ditches and secondary clarifiers are located to the southeast of the existing oxidation ditches. This will require the relocation of the existing pond and maintenance building. The cost for rebuilding or relocating these facilities is not included in the cost estimate for the necessary improvements to the facility.

The new FFPS and the new tertiary filters will be located adjacent to the existing Chlorination Building and Chlorine Contact Basins. The new UV structure will be located at the base of the new oxidation ditches in a similar location to the existing UV structure.

Figure 5 shows a rendering of the proposed site layout. Additional renderings are provided in Appendix C.

7.0 RAW WASTEWATER CONVEYANCE EVALUATION

7.1 Background

This section describes the facilities required to convey raw wastewater from the existing MBCSD WWTP site to CMC where it will be treated. These improvements generally fall into the following two categories:

- Conveyance pipeline; and
- Raw wastewater pumping station

7.2 Conveyance Pipeline

7.2.1 Description

7.2.1.1 Pipe Size and Design Flows

Long transmission lines carrying raw surface water or wastewater like the conveyance pipeline require that the conduit be sized for both the maximum and minimum flow conditions. The new pipeline will need to be able to convey a PHWW flow of 8.0 MGD. The maximum velocity in pipelines is governed more by the amount of pressure available to drive flow than a numerical limit. The minimum flow condition should achieve a minimum velocity of at least 1 foot per second (fps) during average conditions. Therefore, during maximum daily flow conditions, the velocity should exceed 2 fps, which will re-suspend any solids that may settle in the pipeline during periods of low or no flow. Ideally, the minimum flow condition should be close to the AA design flow so that the pumps in the pump station operate near their best efficiency point.

For this analysis, the minimum design flow selected was 2 MGD. With a minimum flow of 2 MGD and a minimum velocity of 1 fps, the required pipe size is approximately 24 inches in diameter. At the PHWW flow of 8.0 MGD, the maximum velocity in the pipeline is approximately 4 fps.

PROPOSED SITE LAYOUT

FIGURE 5

CITY OF MORRO BAY

CAPACITY EVALUATION OF THE CALIFORNIA MEN'S COLONY WWTP

carollo

pw://Carollo/Documents/Client/CA/Morro Bay/9723A00/Deliverables/Figure 5

7.2.1.2 Pipeline Material

Transmission mains in this size range are typically constructed from polyvinyl chloride (PVC), ductile iron pipe (DIP), or welded steel pipe (WSP). Each of these pipe materials is available in the pressure class required for the new conveyance pipeline. During subsequent phases of the project, an analysis will be completed to determine if the pipeline should be limited to a single material, multiple materials, rigid or flexible pipe, or open to bid.

7.2.1.3 Pipeline Appurtenances

Long transmission lines need isolation valves located along the alignment to allow a portion of the pipeline to be taken out of service for cleaning and maintenance. For this analysis, it was assumed that there would be an isolation valve located along every mile of pipe for a total of eight valves. Isolation valves on large diameter piping are frequently smaller than the transmission line. This increases the velocity through the valve and causes a small amount of additional headloss. However, the increased velocity also serves to scour material out of the valve body keeping it cleaner. Isolation vales are assumed to be 18-inch diameter plug valves.

7.2.2 Proposed Alignment

The proposed alignment extends from the existing WWTP generally along Highway 1 to the CMC WWTP as shown in Appendix D. The total length is approximately 8.1 miles with an elevation gain of approximately 180 feet.

7.2.3 Design Criteria

A summary of the design criteria and the results of the hydraulic analysis are shown in Table 10.

Table 10 Design Criteria – Wastewater Conveyance Pipeline Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay	
Parameter	**Criteria**
Peak Flow, MGD	8.0
Minimum Flow, MGD	2.0
Minimum Velocity, fps	1.0
Pipe Diameter, inches	24
Lining Material	Double-Thick CML(1)
Isolation Valve	
Type	Plug
Size, inches	18
Spacing, per mile	1
Notes: (1) CML = Cement mortar lining	

7.3 Raw Wastewater Pumping Station

7.3.1 Description

The raw wastewater pumping station (RWWPS) will lift raw sewage from the existing MBCSD WWTP through the new conveyance pipeline to the CMC WWTP for treatment.

7.3.1.1 Pumping Station Configuration

As explained previously, the minimum flow through the pipeline is limited to 2 MGD to maintain adequate velocity in the pipe. Setting the design flow at 2 MGD per pump and providing redundancy with the largest unit out of service in the event of a pump failure requires four duty pumps plus a standby.

The new RWWPS will require a new concrete wet well. The wet well is sized to accommodate the selected pump configuration. The active volume of the pump station will be located below the invert of the sewer inlet pipe so that even when the wet well is full it will not surcharge the existing line.

The pumps will all operate on VFDs, which will allow the pumps to run at a reduced speed to modulate the output based on an input signal such as the wet well level. In this case, the first pump will operate at maximum speed to maintain the 2 MGD minimum flow rate. As influent flow increases beyond the 2 MGD capacity of a single pump, additional pumps will be called to run. These pumps will modulate speed to maintain the set level in the wet well. This operating strategy minimizes the number of starts and stops for the pumps, which will extend their service life.

7.3.1.2 Pump Type

The new RWWPS will not provide screening and removal of solids that make their way into the collection system. This requires that the pumps installed be capable of passing any solids that accumulate in the wet well. The conceptual design assumes that submersible, solids-handling pumps will be installed on guides rails at the bottom of the wet well. If a pump fails or is clogged, the spare pump will automatically be called to run and an alarm will notify the operator that a pump needs attention.

7.3.1.3 Total Design Head Requirements

Total design head (TDH) is the total amount of energy required to convey water the entire length of the pipeline from the RWWPS to the CMC WWTP. TDH is calculated by summing the total change in elevation required, also known as static lift, and the total amount of headloss that occurs throughout the system.

Static lift includes the change in elevation between the water surface elevation at the RWWPS and the water surface elevation at the discharge. This difference in elevation is not dependent on the flow through the pipeline. In addition to elevation change, it is desirable to maintain a positive residual pressure in the pipeline. This residual pressure can be added to the static lift, as it also does not change with the amount of flow.

Headloss is the amount of energy spent to move water past the wall of the pipeline. Headloss calculations for the transmission line were completed using another *Hydraulix*® model separate from the model created for the hydraulic evaluation of the CMC WWTP. The amount of headloss through the line is dependent on both the velocity through the line and the friction factor of the surface in contact with the wastewater. In the case of flexible pipe materials, such as PVC, this is typically the pipe wall itself. For rigid pipes, such as DIP or WSP, this is frequently a liner applied to the inside of the pipe barrel to protect the pipe material from the corrosive effects of wastewater. The friction factor is based on the absolute roughness of the pipe wall with rougher materials producing more friction and consequently more headloss. This analysis has assumed CML to calculate the friction factor. Assuming a rougher material such as CML instead of PVC at this stage provides additional conservatism in the TDH calculation in the event PVC is later selected as the desired pipe material.

In addition to friction losses, small amounts of energy loss occur when the pipeline changes direction at fittings, or if the pipeline changes shape (i.e., reduced size, valve body, etc.). These losses are termed minor losses and were accounted for by adding an additional one percent to the length of the pipe. Analysis of minor losses through addition of pipe length is known as the equivalent length method.

All of these components taken together provide the TDH used to select a pump for the new RWWPS.

7.3.2 Location and Site Layout

The RWWPS will be located on the site of the existing MBCSD WWTP near the existing headworks facility. The new RWWPS will be constructed within, but separately from, the existing WWTP to minimize the interference with the existing facility.

7.3.3 Design Criteria

A summary of the design criteria are shown in Table 11.

Table 11 Design Criteria – Wastewater Raw Wastewater Pumping Station Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay

Parameter	Criteria
Peak Flow, MGD	8.0
Pump Flow, MGD	2.0
Total Design Head, ft	295
Total Static Head, ft	215
Pump Station Configuration	4+1
Pump Type	Submersible, Solids Handling

8.0 PLANNING-LEVEL COST ESTIMATES

8.1 Introduction

The cost estimate is one of the most sensitive products prepared for a project. The level of accuracy that can be expected is directly proportional to the level of engineering effort completed. Each cost estimate must be carefully prepared from the conceptual level to the facilities plan level, through the preliminary design and the final engineer's estimate.

8.2 Scope and Level of Accuracy

The Association for the Advancement of Cost Engineering (AACE) International (formally known as the American Association of Cost Engineers) has suggested levels of accuracy for five estimate classes. These five estimate classes are presented in the AACE International Recommended Practice No. 18R-97.

Table 12 presents a summary of these five estimate classes and their characteristics including expected accuracy ranges determined for each process area to determine the total capital costs.

Table 12 Category of Cost Estimates[1]
Capacity Evaluation of the California Men's Colony WWTP
City of Morro Bay

Primary Characteristic		Secondary Characteristic			
Estimate Class	**Level of Project Definition Expressed as percent of Complete Definition**	**End Usage**	**Methodology Typical Estimating Method**	**Expected Accuracy Range Typical Variation in Low and High Ranges[a]**	**Preparation Effort Typical Degree of Effort Relative to Least Cost Index of 1[b]**
Class 5	0% to 2%	Concept Screening	Capacity Factored, Parametric Models, Judgment, or Analogy	L: -20% to -50% H: +30% - +100%	1
Class 4	1% to 15%	Study or Feasibility	Equipment Factored or parametric Models	L: - 15% to -30% H: +20% - +50%	2 to 4
Class 3	10% to 40%	Budget, Authorization, or Control	Semi-Detailed Unit Costs with Assembly Level Line Items	L: - 10% to -20% H: +10% - +30%	3 to 10
Class 2	30% to 70%	Control or Bid/Tender	Detailed Unit Cost with Forced Detailed Take-Off	L: - 5% to -15% H: +5% - +20%	4 to 20
Class 1	50% to 100%	Check Estimate or Bid/Tender	Detailed Unit Cost with Detailed Take-Off	L: - 3% to -10% H: +3% - +15%	5 to 100

Notes:
(1) Table 1.1 comes from the AACE International Recommended Practices and Standards, No. 18R-97.
(a) The state of process technology and availability of applicable reference cost data affect the range markedly. The +/- value represents typical percentage variation of actual costs from the cost estimate after application of contingency (typically at a 50% level of confidence) for a given scope.
(b) If the range index value of "1" represents 0.005% of project costs, then an index value of 100 represents 0.5%. Estimate preparation effort is highly dependent upon the size of the project and the quality of estimating data and tools.

The quantity and quality of the information required to prepare an estimate depends on the end use for that estimate. Typically, as a project progresses from the conceptual phase to the study phase, preliminary design and final design, the quantity and quality of information increases, thereby providing data for development of a progressively more accurate cost estimate. A contingency is often used to compensate for lack of detailed engineering data, oversights, anticipated changes, and imperfection in the estimating methods used. As the quantity and quality of data becomes better, smaller contingency allowances are typically utilized. For the individual components described in this TM, cost estimates are developed following the AACE International Recommended Practice No. 18R-97 estimate Class 4.

Class 4 estimates are prepared for any number of strategic business planning purposes including, but not limited to, detailed strategic planning, confirmation of economic and/or technical feasibility, and preliminary budget approval or approval to proceed to next stage. Limited information is available at the time when a Class 4 estimate is developed. Therefore, Class 4 estimates virtually always use stochastic estimating methods such as parametric or other modeling techniques, and various factors. Subsequently, estimated costs have fairly wide accuracy ranges. Typical accuracy ranges for Class 4 estimates are –15 percent to –30 percent on the low side, and +20 percent to +50 percent on the high side, depending on the technological complexity of the project, availability and accuracy of appropriate reference information, and the inclusion of an appropriate contingency determination. Capital costs for the necessary treatment plant improvements and raw wastewater conveyance facilities needed for combined MBCSD to be treated at the CMC WWTP are prepared based on Class 4 estimates.

8.3 Basis of Cost Evaluations

The costs presented in this TM are based on preliminary layouts, preliminary unit process sizes, and conceptual alternative configurations. Capital costs have been estimated from unit costs developed from the following sources:

- Final Engineer's Estimate for the California Men's Colony Wastewater Treatment Plant Improvement Project (Carollo, January 2001)
- Final Engineer's for the California Men's Colony Wastewater Treatment Plant Disinfection Upgrade (JR Conkey & Associates, February 2012)
- Manufacturers' cost proposals for MF and RO equipment
- Carollo Cost Estimating System (CCES)

A summary of the economic criteria used for estimating costs is presented in Table 13. These economic criteria were applied to the capital costs determined for each process area to determine the total capital cost.

Table 13 Economic Criteria Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay	
Item	**Assumption**
General	
Cost in Time and Place	Costs are based on 2014 (ENRCCI[1] = 10737) in San Luis Obispo, CA
Direct Cost Factors	
General Conditions	10 percent applied to the Total Capital Cost
Site Work	2.5 percent applied to the Total Capital Cost
Yard Piping and Miscellaneous Structures	7.5 percent applied to the Total Capital Cost
Electrical and Instrumentation	15 percent applied to the Total Capital Cost
Indirect Cost Factors	
Design Contingency	30 percent applied to the Total Capital Cost
General Contractor Overhead and Profit (OH&P)	18 percent applied to the Total Capital Cost
Escalation to Mid-Point of Construction[2]	19.4 percent applied to the Total Direct Cost
Sales Tax[3]	3.5 percent applied to the Total Direct Cost
Project Cost Factors	
Engineering, Administration and Legal	35 percent applied to the Total Estimated Construction Cost

Notes:
(1) ENRCCI = Engineering News Record Construction Cost Index
(2) Escalation based on an annual escalation rate of 3 percent to a mid-point of construction in November 2020
(3) Sales tax calculated as 8.7 percent applied to 40 percent of the Total Direct Cost

8.4 Capital Costs

While the estimated construction costs represent the average bidding conditions for many projects, variations in bidding climate at the time the facilities are constructed can affect actual construction costs. Further, the size of the facilities may be refined during preliminary design based on the most current operational information available. For these reasons, the actual construction costs may be lower or higher than originally estimated. As mentioned earlier, Class 4 estimates are not as accurate as estimates prepared in conjunction with preliminary or final design.

Construction costs have historically escalated with time. This trend is expected to continue in the future. To record these trends in rising costs, several indices have been established for various fields of construction. The standard indicator of changes in heavy construction prices is the ENRCCI. Capital costs developed for the CMC WWTP improvements outlined in this TM are based on July 2009 costs for San Luis Obispo with an ENRCCI of 6,825 and February 2012 costs with an ENRCCI of 10,092.

As the financial analysis is developed, the estimated costs will be escalated to the projected time of construction. The estimated escalation rate is 3 percent. This escalation rate has been applied to current costs to a mid-point of construction of November 2020 based on a report prepared by Mike Nunley and Associates (MKN) and direction from City staff. This report is included in Appendix E.

The construction costs presented include contractor's overhead and profit, and design contingencies. Costs to the owner, such as engineering, legal, administrative, project contingencies, and construction management costs are added to the construction costs. A variable project cost factor of 35 percent is applied to the construction costs to arrive at the total estimated project capital cost.

Several different approaches have been used to develop construction cost estimates for the CMC WWTP improvements and new conveyance facilities. Treatment plant costs have been developed using a capacity factored estimate approach. Conveyance facilities costs are based on unit costs.

8.4.1 Treatment Plant Cost Estimating Approach

As mentioned previously, the CMC WWTP improvement cost estimates have been developed using a capacity factored estimate approach. The basis of these estimates is the final engineer's estimates from the last major expansions to the CMC facility completed in 2003 and 2013. A summary of these estimates is included in Appendix F. In order to develop cost factors, direct costs for each process were escalated to current values using an ENRCCI of 10737. These direct costs were then converted to unit costs using the appropriate design criteria. Table 12 includes the design criteria for each unit process and the associated unit cost used to develop the capital cost estimates for the CMC WWTP improvements.

For project cost components not represented by the unit costs in Table 14, cost factors were applied to the total capital cost for the improvements to account for the following items:

- General conditions
- Site work
- Yard piping
- Electrical and instrumentation

Table 14 Unit Cost Development for CMC WWTP Improvements
Capacity Evaluation of the California Men's Colony WWTP
City of Morro Bay

Process	Total Construction Cost	Total Capital Cost	Design Criteria		Unit Capital Costs	
	Original	Current[3]	Value	Unit	Value	Unit
Influent Pumping and Screening[1]	$1,464,260	$1,808,565	5.46	MGD	$331,200	$/MGD
Aerated Grit Removal[1]	$322,990	$398,938	12,566	Gallons	$32	$/Gallon
Oxidation Ditches[1]	$2,879,450	$3,556,521	3,520,000	Gallons	$1	$/Gallon
Secondary Clarification[1]	$1,144,620	$1,413,765	694,986	Gallons	$2	$/Gallon
RAS/WAS Pumping[1]	$291,970	$360,624	3.4	MGD	$106,000	$/MGD
Tertiary Filtration[1]	$972,780	$1,201,519	8	Filter Cells	$150,200	$/Filter Cell
UV Disinfection[2]	$2,048,241	$2,798,689	2	Channels	$1,024,000	$/Channel
Biosolids Dewatering[1]	$2,265,890	$2,048,241	4,603	Pounds per Day	$608	$/Pounds per Day

Notes:

(1) Costs developed using the Final Engineer's Estimate for the California Men's Colony Wastewater Treatment Plant Improvement Project (Carollo, January 2001)

(2) Cost developed using the Final Engineer's for the California Men's Colony Wastewater Treatment Plant Disinfection Upgrade (JR Conkey & Associates, February 2012)

(3) Total capital cost has been developed by extracting soft costs and escalating from the original estimate date to the mid-point of construction (November 2020) using the appropriate ENRCCI.

8.4.2 MF-RO System Facility Cost Estimating Approach

Cost estimates for the MF-RO facility were developed using a combination of the CCES and manufacturer-provided quotes for major MF-RO-related equipment. The CCES is a cost-estimating tool supported by a compilation of up-to-date cost databases focused on the water and wastewater industry. The CCES was used to develop the costs for the MF-RO supporting infrastructure including flow and washwater equalization and storage. Cost for major equipment including MF membranes, RO membranes, and chemical storage tanks and metering pumps were derived from manufacturers' quotes available from previous projects. Once the design criteria for the MF-RO facility were finalized, equipment layouts were prepared to determine the necessary building footprint. The building cost was determined using a unit capital cost of $250 per sf. Separate cost factors for electrical and instrumentation were applied to account for the cost of these elements that are specific to the MF-RO facility.

8.4.3 Raw Wastewater Conveyance Cost Estimating Approach

Cost estimates for the RWWPS and conveyance pipeline necessary to convey sewage from the current MBCSD WWTP site to the CMC WWTP were also developed using the CCES. The development of the estimates for these facilities began with a conceptual alignment of the conveyance pipeline. Based on the design PHWW flow requirements of 8.0 MGD, the elevation difference between the two sites, and the alignment length, the diameter for the pipeline was selected. Following selection of the pipeline diameter, the TDH for the system was determined in order to identify the size of the pumps needed to lift the raw wastewater from the MBCSD WWTP to the CMC WWTP. Once the pumps were preliminarily selected, the wet well was sized. Quantity take-offs were then done based on the conceptual design of the conveyance pipeline and RWWPS for items that could be quantified at this stage in the project.

Cost factors were applied to the total capital cost for the RWWPS and force main to account for the following items:

- General conditions
- Electrical and instrumentation (applied to the RWWPS only)

8.4.4 Brine Disposal Line Cost Estimating Approach

A cost estimate for the brine disposal pipeline was also developed using the CCES in a similar manner as the conveyance pipeline. Based on the planning-level MF-RO design criteria presented in Table 7, an 8-inch force main would be required to convey the 0.5 MGD brine flow from the CMC WWTP to the existing ocean outfall. The residual pressure from the RO process will be sufficient to convey the brine; therefore, a separate pump station at the CMC site is not required. The pipeline material has been assumed as

PVC. Based on the design criteria and material assumptions, quantity take-offs were done for items that could be quantified at this stage in the project.

Cost factors were applied to the total capital cost for the brine disposal line to account for General Conditions.

8.5 Results

A summary of the cost estimate results for the RWWPS, conveyance pipeline, and CMC WWTP improvements is included in Table 15. Cost estimating details for these facilities are included in Appendix G.

Table 15	**Summary of Total Project Costs Capacity Evaluation of the California Men's Colony WWTP City of Morro Bay**
CMC WWTP Improvements	
General Conditions	$5,088,000
Site Work	$1,272,000
Yard Piping-Misc. Structures	$3,816,000
Influent Pumping-Screening	$2,650,000
Aerated Grit Removal	$641,000
Oxidation Ditches	$3,555,000
RAS-WAS Pump Station	$424,000
Secondary Clarifiers	$2,116,000
Tertiary Filters	$2,797,000
UV Disinfection	$3,072,000
MF-RO Facility	$15,020,000
Biosolids Dewatering	$2,799,000
Electrical-Instrumentation	$7,633,000
Subtotal	**$50,883,000**
New Conveyance Facilities and Brine Disposal	
8 MGD Raw Wastewater Pump Station	$2,036,000
24-inch Raw Wastewater Force Main	$8,263,000
8-inch Brine Disposal Pipeline	$1,912,000
Subtotal	**$12,211,000**
Total Capital Cost	**$63,094,000**
Total Construction Cost(1)	**$119,617,000**
Total Project Cost(2)	**$161,484,000**

Notes:

(1) Cost includes contingency (30 percent), general contractor overhead and profit (18 percent), escalation to mid-point of construction (19.4 percent), and sales tax (3.5 percent).

(2) Cost includes engineering, administration, and legal (35 percent).

APPENDIX A – BIOWIN OUTPUT

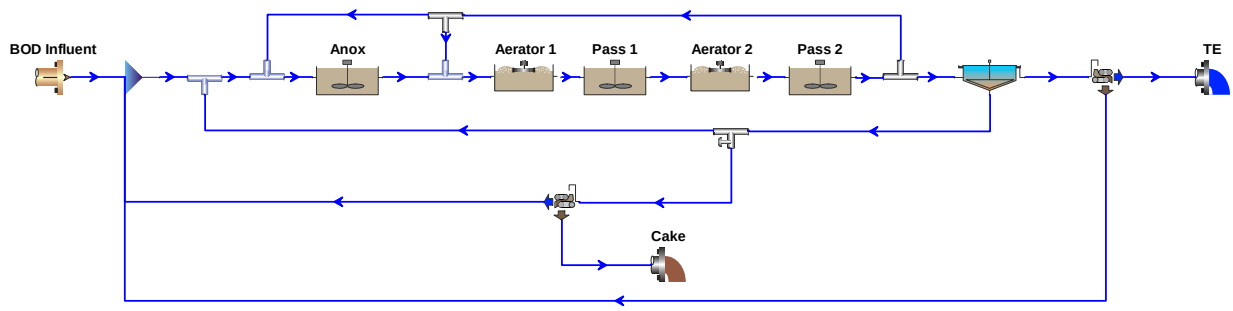
BioWin user and configuration data

Project details
User name: AConklin

Created: 10/24/2014Saved: 11/20/2014

Target aSRT: 16.00 daysSRT: **** days
Temperature: 15.0°C

Flowsheet



Configuration information for all Bioreactor units

Physical data

Element name	Volume [Mil. Gal]	Area [ft2]	Depth [ft]	# of diffusers
Anox	0.7000	7198.1842	13.000	Un-aerated
Pass 1	1.0533	1.083E+4	13.000	Un-aerated
Pass 2	1.0533	1.083E+4	13.000	Un-aerated

Operating data Average (flow/time weighted as required)

Element name	Average DO Setpoint [mg/L]
Anox	0
Pass 1	0
Pass 2	0

Aeration equipment parameters

Element name	k1 in C = k1(PC)^0.25 + k2	k2 in C = k1(PC)^0.25 + k2	Y in Kla = C Usg ^ Y - Usg in [m3/(m2 d)]	Area of one diffuser	% of tank area covered by diffusers [%]
Anox	2.5656	0.0432	0.8200	0.4413	10.0000
Pass 1	2.5656	0.0432	0.8200	0.4413	10.0000
Pass 2	2.5656	0.0432	0.8200	0.4413	10.0000

Configuration information for all BOD Influent units

Operating data Average (flow/time weighted as required)

Element name	BOD Influent
Flow	2.9
Total Carbonaceous BOD mgBOD/L	227.00
Volatile suspended solids mgVSS/L	221.00
Total suspended solids mgTSS/L	260.00
Total Kjeldahl Nitrogen mgN/L	39.00
Total P mgP/L	10.00
Nitrate N mgN/L	0
pH	7.30
Alkalinity mmol/L	6.00
Calcium mg/L	80.00
Magnesium mg/L	15.00
Dissolved oxygen mg/L	0

Element name	BOD Influent
Fbs - Readily biodegradable (including Acetate) [gCOD/g of total COD]	0.1600
Fac - Acetate [gCOD/g of readily biodegradable COD]	0.1500
Fxsp - Non-colloidal slowly biodegradable [gCOD/g of slowly degradable COD]	0.9129
Fus - Unbiodegradable soluble [gCOD/g of total COD]	0.0500
Fup - Unbiodegradable particulate [gCOD/g of total COD]	0.1300
Fna - Ammonia [gNH3-N/gTKN]	0.6600
Fnox - Particulate organic nitrogen [gN/g Organic N]	0.5000
Fnus - Soluble unbiodegradable TKN [gN/gTKN]	0.0200
FupN - N:COD ratio for unbiodegradable part. COD [gN/gCOD]	0.0350
Fpo4 - Phosphate [gPO4-P/gTP]	0.5000
FupP - P:COD ratio for unbiodegradable part. COD [gP/gCOD]	0.0110
FZbh - OHO COD fraction [gCOD/g of total COD]	0.0200
FZbm - Methylotroph COD fraction [gCOD/g of total COD]	1.000E-4
FZaob - AOB COD fraction [gCOD/g of total COD]	1.000E-4
FZnob - NOB COD fraction [gCOD/g of total COD]	1.000E-4
FZamob - ANAMMOX COD fraction [gCOD/g of total COD]	1.000E-4
FZbp - PAO COD fraction [gCOD/g of total COD]	1.000E-4
FZbpa - Propionic acetogens COD fraction [gCOD/g of total COD]	1.000E-4
FZbam - Acetoclastic methanogens COD fraction [gCOD/g of total COD]	1.000E-4
FZbhm - H2-utilizing methanogens COD fraction [gCOD/g of total COD]	1.000E-4
FZe - Endogenous products COD fraction [gCOD/g of total COD]	0

Configuration information for all Model clarifier units

Physical data

Element name	Volume[Mil. Gal]	Area[ft2]	Depth[ft]	Number of layers	Top feed layer	Feed Layers
SC	0.6950	6636.0000	14.000	10	6	1

Operating data Average (flow/time weighted as required)

Element name	Split method	Average Split specification
SC	Flow paced	100.00 %

Element name	Average Temperature	Reactive
SC	Uses global setting	No

Configuration information for all Dewatering unit units

Operating data Average (flow/time weighted as required)

Element name	Split method	Average Split specification
Filters	Flow paced	10.00 %
Centrifuges	Flow paced	0.50 %

Element name	Percent removal
Filters	60.00
Centrifuges	85.00

Configuration information for all Splitter units

Operating data Average (flow/time weighted as required)

Element name	Split method	Average Split specification
RAS splitter	Flowrate [Side]	0.0799178609117129
ML splitter	Flowrate [Side]	250
IR splitter	Fraction	0.85

Configuration information for all Bioreactor (surface aerators) units

Physical data

Element name	Volume [Mil. Gal]	Area [ft2]	Depth [ft]
Aerator 1	0.3567	3667.9890	13.000
Aerator 2	0.3567	3667.9890	13.000

Operating data Average (flow/time weighted as required)

Element name	Average Power supply rate [hp]
Aerator 1	117.5
Aerator 2	117.5

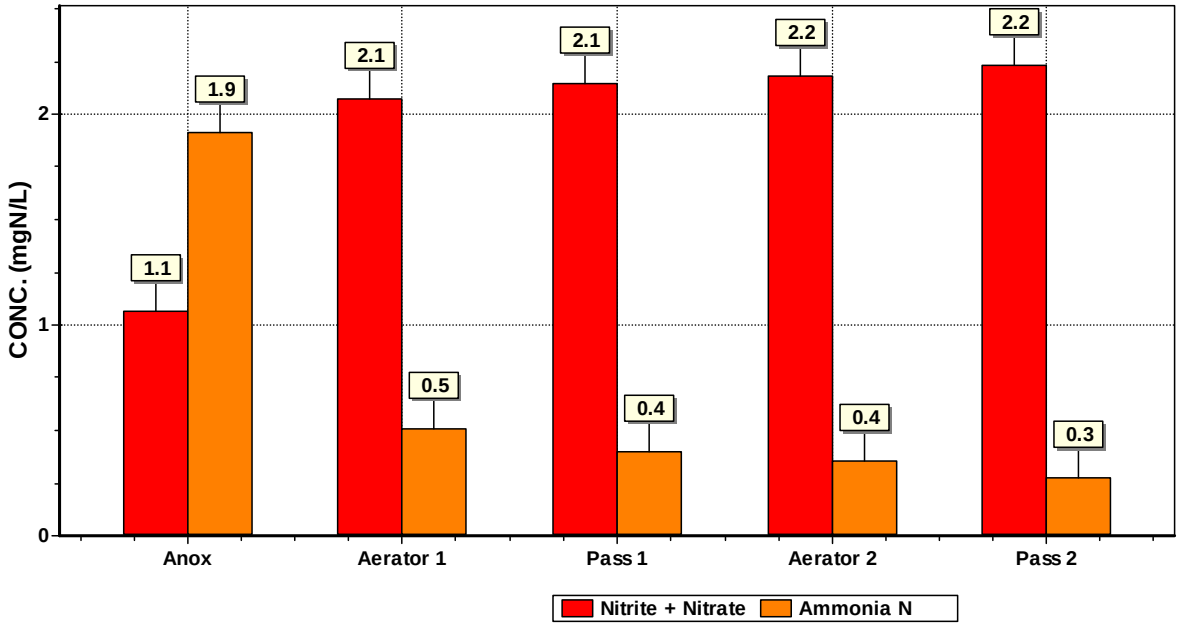
Aeration equipment parameters

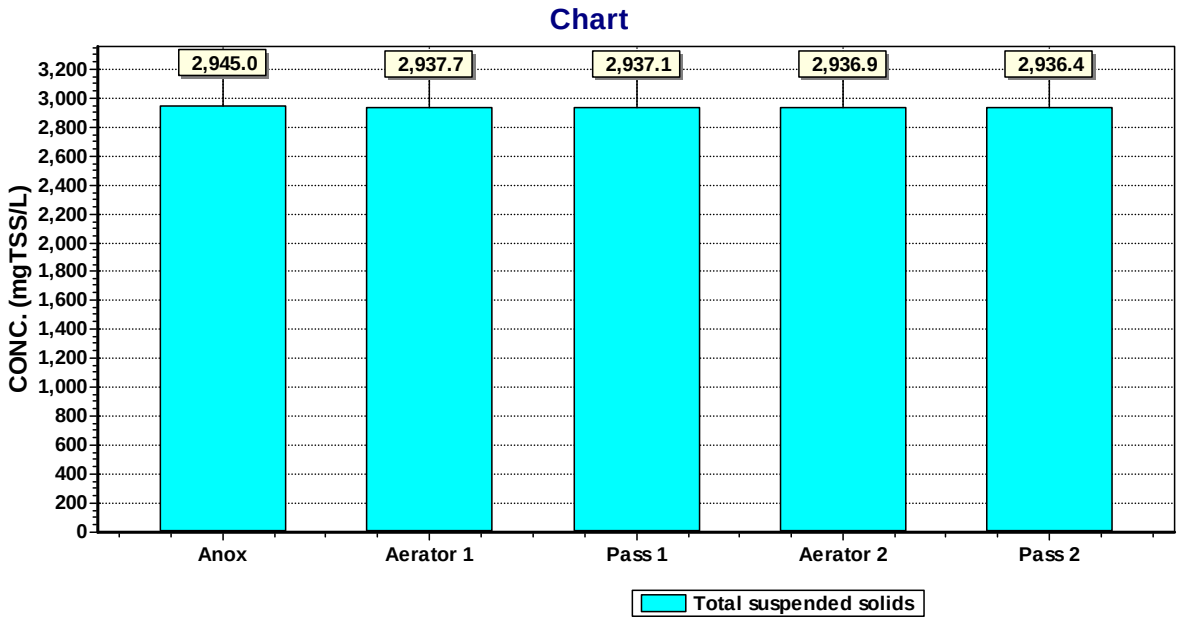
Element name	Surface aerator Std. oxygen transfer rate [lb O /(hp hr)]	Maximum power per rotor [hp]
Aerator 1	2.4670	26.8097
Aerator 2	2.4670	26.8097

Element name	Alpha (surf) OR Alpha F (diff) [-]	Beta [-]	Surface pressure [kPa]	Fractional effective saturation depth (Fed) [-]
Aerator 1	0.8500	0.9500	101.3250	0.3250
Aerator 2	0.8500	0.9500	101.3250	0.3250

Element name	Supply gas CO2 content [vol. %]	Supply gas O2 [vol. %]	Off-gas CO2 [vol. %]	Off-gas O2 [vol. %]	Off-gas H2 [vol. %]	Off-gas NH3 [vol. %]	Off-gas CH4 [vol. %]	Surface turbulence factor [-]
Aerator 1	0.0350	20.9500	2.0000	18.8000	0	0	0	2.0000
Aerator 2	0.0350	20.9500	2.0000	18.8000	0	0	0	2.0000

BioWin Album





Global Parameters

AOB

Name	Default	Value	
Max. spec. growth rate [1/d]	0.9000	0.9000	1.0720
Substrate (NH4) half sat. [mgN/L]	0.7000	0.7000	1.0000
Byproduct NH4 logistic slope [-]	50.0000	50.0000	1.0000
Byproduct NH4 inflection point [mgN/L]	1.4000	1.4000	1.0000
AOB denite DO half sat. [mg/L]	0.1000	0.1000	1.0000
AOB denite HNO2 half sat. [mgN/L]	5.000E-6	5.000E-6	1.0000
Aerobic decay rate [1/d]	0.1700	0.1700	1.0290
Anoxic/anaerobic decay rate [1/d]	0.0800	0.0800	1.0290
KiHNO2 [mmol/L]	0.0050	0.0050	1.0000

NOB

Name	Default	Value	
Max. spec. growth rate [1/d]	0.7000	0.7000	1.0600
Substrate (NO2) half sat. [mgN/L]	0.1000	0.1000	1.0000
Aerobic decay rate [1/d]	0.1700	0.1700	1.0290
Anoxic/anaerobic decay rate [1/d]	0.0800	0.0800	1.0290
KiNH3 [mmol/L]	0.0750	0.0750	1.0000

ANAMMOX

Name	Default	Value	
Max. spec. growth rate [1/d]	0.1000	0.1000	1.1000
Substrate (NH4) half sat. [mgN/L]	2.0000	2.0000	1.0000
Substrate (NO2) half sat. [mgN/L]	1.0000	1.0000	1.0000
Aerobic decay rate [1/d]	0.0190	0.0190	1.0290
Anoxic/anaerobic decay rate [1/d]	0.0095	0.0095	1.0290
Ki Nitrite [mgN/L]	1000.0000	1000.0000	1.0000
Nitrite sensitivity constant [L / (d mgN)]	0.0160	0.0160	1.0000

OHO

Name	Default	Value	
Max. spec. growth rate [1/d]	3.2000	3.2000	1.0290
Substrate half sat. [mgCOD/L]	5.0000	5.0000	1.0000
Anoxic growth factor [-]	0.5000	0.5000	1.0000
Denite N2 producers (NO3 or NO2) [-]	0.5000	0.5000	1.0000
Aerobic decay rate [1/d]	0.6200	0.6200	1.0290
Anoxic decay rate [1/d]	0.2330	0.2330	1.0290
Anaerobic decay rate [1/d]	0.1310	0.1310	1.0290
Hydrolysis rate [1/d]	2.1000	2.1000	1.0290
Hydrolysis half sat. [-]	0.0600	0.0600	1.0000
Anoxic hydrolysis factor [-]	0.2800	0.2800	1.0000
Anaerobic hydrolysis factor (AS) [-]	0.0400	0.0400	1.0000
Anaerobic hydrolysis factor (AD) [-]	0.2000	0.2000	1.0000
Adsorption rate of colloids [L/(mgCOD d)]	0.1500	0.1500	1.0290
Ammonification rate [L/(mgN d)]	0.0400	0.0400	1.0290
Assimilative nitrate/nitrite reduction rate [1/d]	0.5000	0.5000	1.0000
Fermentation rate [1/d]	1.6000	1.6000	1.0290
Fermentation half sat. [mgCOD/L]	5.0000	5.0000	1.0000
Fermentation growth factor (AS) [-]	0.2500	0.2500	1.0000
Endogenous products decay rate[1/d]	0	0	1.0000
Free nitrous acid inhibition [mmol/L]	1.000E-7	1.000E-7	1.0000

Methylotrophs

Name	Default	Value	
Max. spec. growth rate [1/d]	1.3000	1.3000	1.0720
Methanol half sat. [mgCOD/L]	0.5000	0.5000	1.0000
Denite N2 producers (NO3 or NO2) [-]	0.5000	0.5000	1.0000
Aerobic decay rate [1/d]	0.0400	0.0400	1.0290
Anoxic/anaerobic decay rate [1/d]	0.0300	0.0300	1.0000
Free nitrous acid inhibition [mmol/L]	1.000E-7	1.000E-7	1.0000

PAO

Name	Default	Value	
Max. spec. growth rate [1/d]	0.9500	0.9500	1.0000
Max. spec. growth rate, P-limited [1/d]	0.4200	0.4200	1.0000
Substrate half sat. [mgCOD(PHB)/mgCOD(Zbp)]	0.1000	0.1000	1.0000
Substrate half sat., P-limited [mgCOD(PHB)/mgCOD(Zbp)]	0.0500	0.0500	1.0000
Magnesium half sat. [mgMg/L]	0.1000	0.1000	1.0000
Cation half sat. [mmol/L]	0.1000	0.1000	1.0000
Calcium half sat. [mgCa/L]	0.1000	0.1000	1.0000
Aerobic/anoxic decay rate [1/d]	0.1000	0.1000	1.0000
Aerobic/anoxic maintenance rate [1/d]	0	0	1.0000
Anaerobic decay rate [1/d]	0.0400	0.0400	1.0000
Anaerobic maintenance rate [1/d]	0	0	1.0000
Sequestration rate [1/d]	4.5000	4.5000	1.0000
Anoxic growth factor [-]	0.3300	0.3300	1.0000

Acetogens

Name	Default	Value	
Max. spec. growth rate [1/d]	0.2500	0.2500	1.0290
Substrate half sat. [mgCOD/L]	10.0000	10.0000	1.0000
Acetate inhibition [mgCOD/L]	10000.0000	10000.0000	1.0000
Anaerobic decay rate [1/d]	0.0500	0.0500	1.0290
Aerobic/anoxic decay rate [1/d]	0.5200	0.5200	1.0290

Methanogens

Name	Default	Value	
Acetoclastic max. spec. growth rate [1/d]	0.3000	0.3000	1.0290
H2-utilizing max. spec. growth rate [1/d]	1.4000	1.4000	1.0290
Acetoclastic substrate half sat. [mgCOD/L]	100.0000	100.0000	1.0000
Acetoclastic methanol half sat. [mgCOD/L]	0.5000	0.5000	1.0000
H2-utilizing CO2 half sat. [mmol/L]	0.1000	0.1000	1.0000
H2-utilizing substrate half sat. [mgCOD/L]	0.1000	0.1000	1.0000
H2-utilizing methanol half sat. [mgCOD/L]	0.5000	0.5000	1.0000
Acetoclastic propionic inhibition [mgCOD/L]	10000.0000	10000.0000	1.0000
Acetoclastic anaerobic decay rate [1/d]	0.1300	0.1300	1.0290
Acetoclastic aerobic/anoxic decay rate [1/d]	0.6000	0.6000	1.0290
H2-utilizing anaerobic decay rate [1/d]	0.1300	0.1300	1.0290
H2-utilizing aerobic/anoxic decay rate [1/d]	2.8000	2.8000	1.0290

pH

Name	Default	Value
OHO low pH limit [-]	4.0000	4.0000
OHO high pH limit [-]	10.0000	10.0000
Methylotrophs low pH limit [-]	4.0000	4.0000
Methylotrophs high pH limit [-]	10.0000	10.0000
Autotrophs low pH limit [-]	5.5000	5.5000
Autotrophs high pH limit [-]	9.5000	9.5000
PAO low pH limit [-]	4.0000	4.0000
PAO high pH limit [-]	10.0000	10.0000
OHO low pH limit (anaerobic) [-]	5.5000	5.5000
OHO high pH limit (anaerobic) [-]	8.5000	8.5000
Propionic acetogens low pH limit [-]	4.0000	4.0000
Propionic acetogens high pH limit [-]	10.0000	10.0000
Acetoclastic methanogens low pH limit [-]	5.0000	5.0000
Acetoclastic methanogens high pH limit [-]	9.0000	9.0000
H2-utilizing methanogens low pH limit [-]	5.0000	5.0000
H2-utilizing methanogens high pH limit [-]	9.0000	9.0000

Switches

Name	Default	Value
Aerobic/anoxic DO half sat. [mgO2/L]	0.0500	**0.2500**
Anoxic/anaerobic NOx half sat. [mgN/L]	0.1500	0.1500
AOB DO half sat. [mgO2/L]	0.2500	0.2500
NOB DO half sat. [mgO2/L]	0.5000	0.5000
ANAMMOX DO half sat. [mgO2/L]	0.0100	0.0100
Anoxic NO3(->NO2) half sat. [mgN/L]	0.1000	0.1000
Anoxic NO3(->N2) half sat. [mgN/L]	0.0500	0.0500
Anoxic NO2(->N2) half sat. (mgN/L)	0.0100	0.0100
NH3 nutrient half sat. [mgN/L]	0.0050	0.0050
PolyP half sat. [mgP/mgCOD]	0.0100	0.0100
VFA sequestration half sat. [mgCOD/L]	5.0000	5.0000
P uptake half sat. [mgP/L]	0.1500	0.1500
P nutrient half sat. [mgP/L]	0.0010	0.0010
Autotroph CO2 half sat. [mmol/L]	0.1000	0.1000
H2 low/high half sat. [mgCOD/L]	1.0000	1.0000
Propionic acetogens H2 inhibition [mgCOD/L]	5.0000	5.0000
Synthesis anion/cation half sat. [meq/L]	0.0100	0.0100

Changed Aerobic/Anoxic DO half sat switch based on suggestion from Envirosim for modeling oxidation ditches.

Common

Name	Default	Value
Biomass volatile fraction (VSS/TSS)	0.9200	0.9200
Endogenous residue volatile fraction (VSS/TSS)	0.9200	0.9200
N in endogenous residue [mgN/mgCOD]	0.0700	0.0700
P in endogenous residue [mgP/mgCOD]	0.0220	0.0220
Endogenous residue COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200
Particulate substrate COD:VSS ratio [mgCOD/mgVSS]	1.6000	1.6000
Particulate inert COD:VSS ratio [mgCOD/mgVSS]	1.6000	1.6000

AOB

Name	Default	Value
Yield [mgCOD/mgN]	0.1500	0.1500
AOB denite NO2 fraction as TEA [-]	0.5000	0.5000
Byproduct NH4 fraction to N2O [-]	0.0025	0.0025
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous residue [-]	0.0800	0.0800
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200

NOB

Name	Default	Value
Yield [mgCOD/mgN]	0.0900	0.0900
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous residue [-]	0.0800	0.0800
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200

ANAMMOX

Name	Default	Value
Yield [mgCOD/mgN]	0.1140	0.1140
Nitrate production [mgN/mgBiomassCOD]	2.2800	2.2800
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous residue [-]	0.0800	0.0800
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200

OHO

Name	Default	Value
Yield (aerobic) [-]	0.6660	0.6660
Yield (fermentation, low H2) [-]	0.1000	0.1000
Yield (fermentation, high H2) [-]	0.1000	0.1000
H2 yield (fermentation low H2) [-]	0.3500	0.3500
H2 yield (fermentation high H2) [-]	0	0
Propionate yield (fermentation, low H2) [-]	0	0
Propionate yield (fermentation, high H2) [-]	0.7000	0.7000
CO2 yield (fermentation, low H2) [-]	0.7000	0.7000
CO2 yield (fermentation, high H2) [-]	0	0
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Endogenous fraction - aerobic [-]	0.0800	0.0800
Endogenous fraction - anoxic [-]	0.1030	0.1030
Endogenous fraction - anaerobic [-]	0.1840	0.1840
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200
Yield (anoxic) [-]	0.5400	0.5400
Yield propionic (aerobic) [-]	0.6400	0.6400
Yield propionic (anoxic) [-]	0.4600	0.4600
Yield acetic (aerobic) [-]	0.6000	0.6000
Yield acetic (anoxic) [-]	0.4300	0.4300
Yield methanol (aerobic) [-]	0.5000	0.5000
Adsorp. max. [-]	1.0000	1.0000
Max fraction to N2O at high FNA over nitrate [-]	0.0500	0.0500
Max fraction to N2O at high FNA over nitrite [-]	0.1000	0.1000

Methylotrophs

Name	Default	Value
Yield (anoxic) [-]	0.4000	0.4000
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous residue [-]	0.0800	0.0800
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200
Max fraction to N2O at high FNA over nitrate [-]	0.1000	0.1000
Max fraction to N2O at high FNA over nitrite [-]	0.1500	0.1500

PAO

Name	Default	Value
Yield (aerobic) [-]	0.6390	0.6390
Yield (anoxic) [-]	0.5200	0.5200
Aerobic P/PHA uptake [mgP/mgCOD]	0.9300	0.9300
Anoxic P/PHA uptake [mgP/mgCOD]	0.3500	0.3500
Yield of PHA on sequestration [-]	0.8890	0.8890
N in biomass [mgN/mgCOD]	0.0700	0.0700
N in sol. inert [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous part. [-]	0.2500	0.2500
Inert fraction of endogenous sol. [-]	0.2000	0.2000
P/Ac release ratio [mgP/mgCOD]	0.5100	0.5100
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200
Yield of low PP [-]	0.9400	0.9400

Acetogens

Name	Default	Value
Yield [-]	0.1000	0.1000
H2 yield [-]	0.4000	0.4000
CO2 yield [-]	1.0000	1.0000
N in biomass [mgN/mgCOD]	0.0700	0.0700
P in biomass [mgP/mgCOD]	0.0220	0.0220
Fraction to endogenous residue [-]	0.0800	0.0800
COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200

Methanogens

Name	Default	Value
Acetoclastic yield [-]	0.1000	0.1000
Methanol acetoclastic yield [-]	0.1000	0.1000
H2-utilizing yield [-]	0.1000	0.1000
Methanol H2-utilizing yield [-]	0.1000	0.1000
N in acetoclastic biomass [mgN/mgCOD]	0.0700	0.0700
N in H2-utilizing biomass [mgN/mgCOD]	0.0700	0.0700
P in acetoclastic biomass [mgP/mgCOD]	0.0220	0.0220
P in H2-utilizing biomass [mgP/mgCOD]	0.0220	0.0220
Acetoclastic fraction to endog. residue [-]	0.0800	0.0800
H2-utilizing fraction to endog. residue [-]	0.0800	0.0800
Acetoclastic COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200
H2-utilizing COD:VSS ratio [mgCOD/mgVSS]	1.4200	1.4200

General

Name	Default	Value
Molecular weight of other anions [mg/mmol]	35.5000	35.5000
Molecular weight of other cations [mg/mmol]	39.1000	39.1000
Mg to P mole ratio in polyphosphate [mmolMg/mmolP]	0.3000	0.3000
Cation to P mole ratio in polyphosphate [meq/mmolP]	0.1500	0.1500
Ca to P mole ratio in polyphosphate [mmolCa/mmolP]	0.0500	0.0500
Cation to P mole ratio in organic phosphate [meq/mmolP]	0.0100	0.0100
Bubble rise velocity (anaerobic digester) [cm/s]	23.9000	23.9000
Bubble Sauter mean diameter (anaerobic digester) [cm]	0.3500	0.3500
Anaerobic digester gas hold-up factor []	1.0000	1.0000
Tank head loss per metre of length (from flow) [m/m]	0.0025	0.0025

Mass transfer

Name	Default	Value	
Kl for H2 [m/d]	17.0000	17.0000	1.0240
Kl for CO2 [m/d]	10.0000	10.0000	1.0240
Kl for NH3 [m/d]	1.0000	1.0000	1.0240
Kl for CH4 [m/d]	8.0000	8.0000	1.0240
Kl for N2 [m/d]	15.0000	15.0000	1.0240
Kl for N2O [m/d]	8.0000	8.0000	1.0240
Kl for O2 [m/d]	13.0000	13.0000	1.0240

Henry's law constants

Name	Default	Value	
CO2 [M/atm]	0.0340	0.0340	2400.0000
O2 [M/atm]	0.0013	0.0013	1500.0000
N2 [M/atm]	6.500E-4	6.500E-4	1300.0000
N2O [M/atm]	0.0250	0.0250	2600.0000
NH3 [M/atm]	58.0000	58.0000	4100.0000
CH4 [M/atm]	0.0014	0.0014	1600.0000
H2 [M/atm]	7.800E-4	7.800E-4	500.0000

Physico-chemical rates

Name	Default	Value	
Struvite precipitation rate [1/d]	3.000E+10	3.000E+10	1.0240
Struvite redissolution rate [1/d]	3.000E+11	3.000E+11	1.0240
Struvite half sat. [mgTSS/L]	1.0000	1.0000	1.0000
HDP precipitation rate [L/(molP d)]	1.000E+8	1.000E+8	1.0000
HDP redissolution rate [L/(mol P d)]	1.000E+8	1.000E+8	1.0000
HAP precipitation rate [molHDP/(L d)]	5.000E-4	5.000E-4	1.0000

Physico-chemical constants

Name	Default	Value
Struvite solubility constant [mol/L]	6.918E-14	6.918E-14
HDP solubility product [mol/L]	2.750E-22	2.750E-22
HDP half sat. [mgTSS/L]	1.0000	1.0000
Equilibrium soluble PO4 with Al dosing at pH 7 [mgP/L]	0.0100	0.0100
Al to P ratio [molAl/molP]	0.8000	0.8000
Al(OH)3 solubility product [mol/L]	1.259E+9	1.259E+9
AlHPO4+ dissociation constant [mol/L]	7.943E-13	7.943E-13
Equilibrium soluble PO4 with Fe dosing at pH 7 [mgP/L]	0.0100	0.0100
Fe to P ratio [molFe/molP]	1.6000	1.6000
Fe(OH)3 solubility product [mol/L]	0.0500	0.0500
FeH2PO4++ dissociation constant [mol/L]	5.012E-22	5.012E-22

Aeration

Name	Default	Value
Alpha (surf) OR Alpha F (diff) [-]	0.5000	0.5000
Beta [-]	0.9500	0.9500
Surface pressure [kPa]	101.3250	101.3250
Fractional effective saturation depth (Fed) [-]	0.3250	0.3250
Supply gas CO2 content [vol. %]	0.0350	0.0350
Supply gas O2 [vol. %]	20.9500	20.9500
Off-gas CO2 [vol. %]	2.0000	2.0000
Off-gas O2 [vol. %]	18.8000	18.8000
Off-gas H2 [vol. %]	0	0
Off-gas NH3 [vol. %]	0	0
Off-gas CH4 [vol. %]	0	0
Surface turbulence factor [-]	2.0000	2.0000
Set point controller gain []	1.0000	1.0000

Modified Vesilind

Name	Default	Value
Maximum Vesilind settling velocity (Vo) [ft/min]	0.387	0.387
Vesilind hindered zone settling parameter (K) [L/g]	0.370	0.370
Clarification switching function [mg/L]	100.000	100.000
Specified TSS conc.for height calc. [mg/L]	2500.000	2500.000
Maximum compactability constant [mg/L]	15000.000	15000.000

Double exponential

Name	Default	Value
Maximum Vesilind settling velocity (Vo) [ft/min]	0.934	0.934
Maximum (practical) settling velocity (Vo') [ft/min]	0.615	0.615
Hindered zone settling parameter (Kh) [L/g]	0.400	0.400
Flocculent zone settling parameter (Kf) [L/g]	2.500	2.500
Maximum non-settleable TSS [mg/L]	20.0000	20.0000
Non-settleable fraction [-]	0.0010	0.0010
Specified TSS conc. for height calc. [mg/L]	2500.0000	2500.0000

Emission factors

Name	Default	Value
Carbon dioxide equivalence of nitrous oxide	296.0000	296.0000
Carbon dioxide equivalence of methane	23.0000	23.0000

Biofilm general

Name	Default	Value	
Attachment rate [g / (m2 d)]	80.0000	80.0000	1.0000
Attachment TSS half sat. [mg/L]	100.0000	100.0000	1.0000
Detachment rate [g/(m3 d)]	8.000E+4	8.000E+4	1.0000
Solids movement factor []	10.0000	10.0000	1.0000
Diffusion neta []	0.8000	0.8000	1.0000
Thin film limit [mm]	0.5000	0.5000	1.0000
Thick film limit [mm]	3.0000	3.0000	1.0000
Assumed Film thickness for tank volume correction (temp independant) [mm]	0.7500	0.7500	1.0000
Film surface area to media area ratio - Max.[ ]	1.0000	1.0000	1.0000
Minimum biofilm conc. for streamer formation [gTSS/m2]	4.0000	4.0000	1.0000

Maximum biofilm concentrations [mg/L]

Name	Default	Value	
Ordinary heterotrophic organisms (OHO)	5.000E+4	5.000E+4	1.0000
Methylotrophs	5.000E+4	5.000E+4	1.0000
Ammonia oxidizing biomass (AOB)	1.000E+5	1.000E+5	1.0000
Nitrite oxidizing biomass (NOB)	1.000E+5	1.000E+5	1.0000
Anaerobic ammonia oxidizers (ANAMMOX)	5.000E+4	5.000E+4	1.0000
Polyphosphate accumulating organisms (PAO)	5.000E+4	5.000E+4	1.0000
Propionic acetogens	5.000E+4	5.000E+4	1.0000
Methanogens - acetoclastic	5.000E+4	5.000E+4	1.0000
Methanogens - hydrogenotrophic	5.000E+4	5.000E+4	1.0000
Endogenous products	3.000E+4	3.000E+4	1.0000
Slowly bio. COD (part.)	5000.0000	5000.0000	1.0000
Slowly bio. COD (colloid.)	4000.0000	4000.0000	1.0000
Part. inert. COD	5000.0000	5000.0000	1.0000
Part. bio. org. N	0	0	1.0000
Part. bio. org. P	0	0	1.0000
Part. inert N	0	0	1.0000
Part. inert P	0	0	1.0000
Stored PHA	5000.0000	5000.0000	1.0000
Releasable stored polyP	1.150E+6	1.150E+6	1.0000
Fixed stored polyP	1.150E+6	1.150E+6	1.0000
Readily bio. COD (complex)	0	0	1.0000
Acetate	0	0	1.0000
Propionate	0	0	1.0000
Methanol	0	0	1.0000
Dissolved H2	0	0	1.0000
Dissolved methane	0	0	1.0000
Ammonia N	0	0	1.0000
Sol. bio. org. N	0	0	1.0000
Nitrous Oxide N	0	0	1.0000
Nitrite N	0	0	1.0000
Nitrate N	0	0	1.0000
Dissolved nitrogen gas	0	0	1.0000
PO4-P (Sol. & Me Complexed)	1.000E+10	1.000E+10	1.0000
Sol. inert COD	0	0	1.0000
Sol. inert TKN	0	0	1.0000
ISS Influent	1.300E+6	1.300E+6	1.0000
Struvite	8.500E+5	8.500E+5	1.0000
Hydroxy-dicalcium-phosphate	1.150E+6	1.150E+6	1.0000
Hydroxy-apatite	1.600E+6	1.600E+6	1.0000
Magnesium	0	0	1.0000
Calcium	0	0	1.0000
Metal	1.000E+10	1.000E+10	1.0000
Other Cations (strong bases)	0	0	1.0000
Other Anions (strong acids)	0	0	1.0000
Total CO2	0	0	1.0000
User defined 1	0	0	1.0000
User defined 2	0	0	1.0000
User defined 3	5.000E+4	5.000E+4	1.0000
User defined 4	5.000E+4	5.000E+4	1.0000
Dissolved oxygen	0	0	1.0000

Effective diffusivities [m2/s]

Name	Default	Value	
Ordinary heterotrophic organisms (OHO)	5.000E-14	5.000E-14	1.0290
Methylotrophs	5.000E-14	5.000E-14	1.0290
Ammonia oxidizing biomass (AOB)	5.000E-14	5.000E-14	1.0290
Nitrite oxidizing biomass (NOB)	5.000E-14	5.000E-14	1.0290
Anaerobic ammonia oxidizers (ANAMMOX)	5.000E-14	5.000E-14	1.0290
Polyphosphate accumulating organisms (PAO)	5.000E-14	5.000E-14	1.0290
Propionic acetogens	5.000E-14	5.000E-14	1.0290
Methanogens - acetoclastic	5.000E-14	5.000E-14	1.0290
Methanogens - hydrogenotrophic	5.000E-14	5.000E-14	1.0290
Endogenous products	5.000E-14	5.000E-14	1.0290
Slowly bio. COD (part.)	5.000E-14	5.000E-14	1.0290
Slowly bio. COD (colloid.)	5.000E-12	5.000E-12	1.0290
Part. inert. COD	5.000E-14	5.000E-14	1.0290
Part. bio. org. N	5.000E-14	5.000E-14	1.0290
Part. bio. org. P	5.000E-14	5.000E-14	1.0290
Part. inert N	5.000E-14	5.000E-14	1.0290
Part. inert P	5.000E-14	5.000E-14	1.0290
Stored PHA	5.000E-14	5.000E-14	1.0290
Releasable stored polyP	5.000E-14	5.000E-14	1.0290
Fixed stored polyP	5.000E-14	5.000E-14	1.0290
Readily bio. COD (complex)	6.900E-10	6.900E-10	1.0290
Acetate	1.240E-9	1.240E-9	1.0290
Propionate	8.300E-10	8.300E-10	1.0290
Methanol	1.600E-9	1.600E-9	1.0290
Dissolved H2	5.850E-9	5.850E-9	1.0290
Dissolved methane	1.963E-9	1.963E-9	1.0290
Ammonia N	2.000E-9	2.000E-9	1.0290
Sol. bio. org. N	1.370E-9	1.370E-9	1.0290
Nitrous Oxide N	1.607E-9	1.607E-9	1.0290
Nitrite N	2.980E-9	2.980E-9	1.0290
Nitrate N	2.980E-9	2.980E-9	1.0290
Dissolved nitrogen gas	1.900E-9	1.900E-9	1.0290
PO4-P (Sol. & Me Complexed)	2.000E-9	2.000E-9	1.0290
Sol. inert COD	6.900E-10	6.900E-10	1.0290
Sol. inert TKN	6.850E-10	6.850E-10	1.0290
ISS Influent	5.000E-14	5.000E-14	1.0290
Struvite	5.000E-14	5.000E-14	1.0290
Hydroxy-dicalcium-phosphate	5.000E-14	5.000E-14	1.0290
Hydroxy-apatite	5.000E-14	5.000E-14	1.0290
Magnesium	7.200E-10	7.200E-10	1.0290
Calcium	7.200E-10	7.200E-10	1.0290
Metal	4.800E-10	4.800E-10	1.0290
Other Cations (strong bases)	1.440E-9	1.440E-9	1.0290
Other Anions (strong acids)	1.440E-9	1.440E-9	1.0290
Total CO2	1.960E-9	1.960E-9	1.0290
User defined 1	6.900E-10	6.900E-10	1.0290
User defined 2	6.900E-10	6.900E-10	1.0290
User defined 3	5.000E-14	5.000E-14	1.0290
User defined 4	5.000E-14	5.000E-14	1.0290
Dissolved oxygen	2.500E-9	2.500E-9	1.0290

EPS Strength coefficients [ ]

Name	Default	Value	
Ordinary heterotrophic organisms (OHO)	1.0000	1.0000	1.0000
Methylotrophs	1.0000	1.0000	1.0000
Ammonia oxidizing biomass (AOB)	5.0000	5.0000	1.0000
Nitrite oxidizing biomass (NOB)	25.0000	25.0000	1.0000
Anaerobic ammonia oxidizers (ANAMMOX)	10.0000	10.0000	1.0000
Polyphosphate accumulating organisms (PAO)	1.0000	1.0000	1.0000
Propionic acetogens	1.0000	1.0000	1.0000
Methanogens - acetoclastic	1.0000	1.0000	1.0000
Methanogens - hydrogenotrophic	1.0000	1.0000	1.0000
Endogenous products	1.0000	1.0000	1.0000
Slowly bio. COD (part.)	1.0000	1.0000	1.0000
Slowly bio. COD (colloid.)	1.0000	1.0000	1.0000
Part. inert. COD	1.0000	1.0000	1.0000
Part. bio. org. N	1.0000	1.0000	1.0000
Part. bio. org. P	1.0000	1.0000	1.0000
Part. inert N	1.0000	1.0000	1.0000
Part. inert P	1.0000	1.0000	1.0000
Stored PHA	1.0000	1.0000	1.0000
Releasable stored polyP	1.0000	1.0000	1.0000
Fixed stored polyP	1.0000	1.0000	1.0000
Readily bio. COD (complex)	0	0	1.0000
Acetate	0	0	1.0000
Propionate	0	0	1.0000
Methanol	0	0	1.0000
Dissolved H2	0	0	1.0000
Dissolved methane	0	0	1.0000
Ammonia N	0	0	1.0000
Sol. bio. org. N	0	0	1.0000
Nitrous Oxide N	0	0	1.0000
Nitrite N	0	0	1.0000
Nitrate N	0	0	1.0000
Dissolved nitrogen gas	0	0	1.0000
PO4-P (Sol. & Me Complexed)	1.0000	1.0000	1.0000
Sol. inert COD	0	0	1.0000
Sol. inert TKN	0	0	1.0000
ISS Influent	0.3300	0.3300	1.0000
Struvite	1.0000	1.0000	1.0000
Hydroxy-dicalcium-phosphate	1.0000	1.0000	1.0000
Hydroxy-apatite	1.0000	1.0000	1.0000
Magnesium	0	0	1.0000
Calcium	0	0	1.0000
Metal	1.0000	1.0000	1.0000
Other Cations (strong bases)	0	0	1.0000
Other Anions (strong acids)	0	0	1.0000
Total CO2	0	0	1.0000
User defined 1	0	0	1.0000
User defined 2	0	0	1.0000
User defined 3	1.0000	1.0000	1.0000
User defined 4	1.0000	1.0000	1.0000
Dissolved oxygen	0	0	1.0000

APPENDIX B – HYDRAULIX® CALCULATIONS

PROJECT : CMC WWTP Evaluation
PHWWF (13.2 MGD)

JOB # : 9723A.00 **REVISION:**

CHECKED : BS **BY :** ETC
DATE : 2/7/2011 **DATE :** 11/18/2014

	Equation Ref.	HGL	EGL

Number of Duty Channels: 5
Number of Weirs/Channel: 3

DOWNSTREAM CONTROL

EGL =	**198.06**			Max WSE in Effluent Structure Storage Basin.	198.06	198.06
Flow =	**13.20 mgd =**	**20.42 cfs**				

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	12.6	mgd =	19.5 cfs	Subtracted 400 gpm, which will be going to discharge and not flowing over weir	
				201.68	
WSE Downstream of Weir	198.06	ft			
Weir Crest Elevation	198.00	ft			
Downstream head, Hd	0.06	ft			
Length of Weir, L	21.00	ft			

WEIR IS SUBMERGED

Free Discharging Weir Computation **{ 6 }**

Head on Weir, H	NA	ft
Upstream WSE	NA	ft

Submerged Weir Computation **{ 7 }**

K	0.04	
M	0.01	
Increment	0.10	ft
Upstream Head, Hu1	0.43	ft
F(H1)	0.00	
F'(H1)	-8.72	
Upstream Head, Hu2	0.43	ft
Upstream WSE	198.43	ft
Head over Weir	*0.43*	*ft*

Condition Upstream of Weir 198.43 198.43

[CHANNEL FRICTION LOSSES] (Recycle Water Wet Well) **{ 5 }**

Flow, Q	7.92	mgd =	12.3 cfs	Number of Duty Channels (T	5
Channel Width	6.00	ft		Number of Weirs/Channel (N	3
Total Channel Length	24.50				
Downstream Invert El	188.00				
Channel Slope	0.00%				
Manning Coeff, n	0.013				

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	188.00	188.00	10.43	0.196	2.33	0.000	----	----	198.43	198.43
4.9	188.00	188.00	10.43	0.196	2.33	0.000	0.000	0.00	198.43	198.43
9.8	188.00	188.00	10.43	0.196	2.33	0.000	0.000	0.00	198.43	198.43
14.7	188.00	188.00	10.43	0.196	2.33	0.000	0.000	0.00	198.43	198.43
19.6	188.00	188.00	10.43	0.196	2.33	0.000	0.000	0.00	198.43	198.43
24.5	188.00	188.00	10.43	0.196	2.33	0.000	0.000	0.00	198.43	198.43

TOTAL ENERGY LOSS *0.00 ft*

Condition at Upstream End of Channel 198.43 198.43

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **36" UV Effluent Pipe to Effluent Structure** **{ 4 }**

Flow	7.9	mgd =	12.3 cfs	
Pipe Diameter, D	36	inch		
Pipe Length, L	420	ft		
Absolute Roughness, ε	0.00040	ft		
Pipe velocity, v	1.73	fps		
Kinematic Viscosity	1.000E-05	ft^2/sec		
Reynold's Number, R	520001			
Friction factor, f	0.0147		Equivalent Hazen-Williams "C" =	146.4512

	Equation Ref.	HGL	EGL

Friction Energy Loss, h_L 0.10 ft

MINOR PIPE LOSS HEADING **30" UV Effluent Pipe to Effluent Structure**

Flow, Q 7.9 mgd = 12.3 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Outlet Loss - Still Water	7.92	12.25	1.00	36	----	1.73	----	0.05	0.05
2	90 º Elbow - Regular Fl.	7.92	12.25	0.30	36	----	1.73	----	0.05	0.03
2	45 º Bend - Regular Fl.	7.92	12.25	0.23	36	----	1.73	----	0.05	0.02
1	Butterfly Valve (Open)	7.92	12.25	0.50	36	----	1.73	----	0.05	0.02
1	Entrance Loss - Flush	7.92	12.25	1.00	----	36	----	1.73	0.05	0.05
									Sum =	0.17

Total Energy Loss = 0.26 ft

Upstream Condition 198.65 198.70

FLOW SPLIT **Individual 20" UV Effluent Pipes Combining** Number of Duty Channels 3

Downstream Flow 7.9 mgd = 12.3 cfs

New Flow 2.6 mgd = 4.1 cfs

[CHANNEL FRICTION LOSSES] **{ 5 }**

Flow, Q 2.64 mgd = 4.1 cfs
Channel Width 7.50 ft
Total Channel Length 50.00
Downstream Invert El 191.00
Channel Slope 0.00%
Manning Coeff, n 0.013

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	191.00	191.00	7.70	0.071	2.52	0.000	----	----	198.70	198.70
10.0	191.00	191.00	7.70	0.071	2.52	0.000	0.000	0.00	198.70	198.70
20.0	191.00	191.00	7.70	0.071	2.52	0.000	0.000	0.00	198.70	198.70
30.0	191.00	191.00	7.70	0.071	2.52	0.000	0.000	0.00	198.70	198.70
40.0	191.00	191.00	7.70	0.071	2.52	0.000	0.000	0.00	198.70	198.70
50.0	191.00	191.00	7.70	0.071	2.52	0.000	0.000	0.00	198.70	198.70

TOTAL ENERGY LOSS *0.00 ft*

Condition at Upstream End of Channel 198.70 198.70

FLOW SPLIT

Number of Weirs 3

Downstream Flow 2.6 mgd = 4.1 cfs

New Flow 0.9 mgd = 1.4 cfs

Lateral Spillway - Discharge into launder uniformly along entire length of launder

Flow, Q 0.88 mgd = 1.4 cfs
Width, b 0.63 ft 9.58 in
Length, L 11 ft
Manning Coeff, n 0.013

Mannings Equation
yc = 0.53 ft
yl = 1.26 ft
yu = 1.34 ft

PROJECT : CMC WWTP Evaluation
PHWWF (13.2 MGD)

JOB # : 9723A.00 **REVISION:**

CHECKED : BS **DATE :** 2/7/2011 **BY :** ETC **DATE :** 11/18/2014

				Equation Ref.	HGL	EGL
Slope, So	0.000 ft/ft		HGLu = 198.78 ft			
Invert Elevation at Outlet	197.44 ft	24.00 in depth of trough				
HGL at outlet	198.70 ft					

Station	Invert	Flow (cfs)	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	D (HGL)	EGL
0.00	197.44	1.36	1.26	1.72	0.252	0.0014			198.70		198.74
2.20	197.44	1.09	1.29	1.34	0.253	0.0009	0.0011	0.0025	198.73	0.037	198.76
4.40	197.44	0.82	1.32	0.98	0.254	0.0005	0.0007	0.0014	198.76	0.026	198.77
6.60	197.44	0.54	1.34	0.65	0.255	0.0002	0.0003	0.0007	198.78	0.017	198.78
8.80	197.44	0.27	1.35	0.32	0.255	0.0000	0.0001	0.0003	198.79	0.010	198.79
11.00	197.44	0.00	1.35	0.00	0.255	0.0000	0.0000	0.0001	198.79	0.003	198.79

Total Energy Loss = 0.05 ft

WSE Upstream of lateral spillway 198.79 198.79

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	0.9 mgd =	1.4 cfs	0.48
WSE Downstream of Weir	198.79 ft		
Weir Crest Elevation	199.44 ft		
Downstream head, Hd	-0.65 ft		
Length of Weir, L	20.16 ft		

WEIR IS FREE-DISCHARGING

Free Discharging Weir Computation **{ 6 }**

Head on Weir, H	0.07	ft
Upstream WSE	199.51	ft

Submerged Weir Computation **{ 7 }**

K	NA	
M	NA	
Increment	NA	ft
Upstream Head, Hu1	NA	ft
F(H1)	NA	
F'(H1)	NA	
Upstream Head, Hu2	NA	ft
Upstream WSE	NA	ft
Head over Weir	*0.07*	*ft*

Condition Upstream of Weir 199.51 199.51

FLOW SPLIT

Number of Weirs 3

Downstream Flow	0.9 mgd =	1.4 cfs
New Flow	2.6 mgd =	4.1 cfs

[CHANNEL FRICTION LOSSES] **{ 5 }**

Flow, Q	2.64 mgd =	4.1 cfs
Channel Width	3.40 ft	Width changes. Used average of upstream and downstream width.
Total Channel Length	3.00	
Downstream Invert El	197.44	
Channel Slope	-18.00%	
Manning Coeff, n	0.013	

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	197.44	197.44	2.07	0.581	0.93	0.000	----	----	199.51	199.51
0.6	197.33	197.44	2.18	0.552	0.95	0.000	0.000	0.00	199.51	199.51
1.2	197.22	197.33	2.29	0.525	0.97	0.000	0.000	0.00	199.51	199.51
1.8	197.12	197.22	2.39	0.502	0.99	0.000	0.000	0.00	199.51	199.51
2.4	197.01	197.12	2.50	0.480	1.01	0.000	0.000	0.00	199.51	199.51
3.0	196.90	197.01	2.61	0.460	1.03	0.000	0.000	0.00	199.51	199.51

TOTAL ENERGY LOSS *0.00 ft*

PROJECT : CMC WWTP Evaluation
PHWWF (13.2 MGD)

JOB # : 9723A.00 **REVISION:**

CHECKED : BS **DATE :** 2/7/2011 **BY :** ETC **DATE :** 11/18/2014

	Equation Ref.	HGL	EGL
Condition at Upstream End of Channel		199.51	199.51

MINOR CHANNEL LOSS HEADING

Flow, Q 2.6 mgd = 4.1 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Width Up (ft)	Width Down (ft)	Depth (ft)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Sudden Expansion	2.64	4.08	1.00	2.33	4.50	2.07	0.85	0.44	0.01	0.01
										Sum =	0.00814

Total Energy Loss = 0.01 ft

Upstream Condition		199.51	199.52

U.V. Basin Channel:

Flow, Q 2.6 mgd = 4.1 cfs
Channel width, W 2.3 ft
Bottom Channel Elevation = 196.90 ft
Energy Loss, hL 0.056 ft **0.6 inches was calculated from the sizing spreadsheet for max flow with 1 channels with 3 banks in the channel**

Flow Area of Channel, A 6.17 sq ft 2.75
Velocity, V 0.66 fps

Condition Upstream of UV Banks		199.57	199.57

Water Level upstream of first UV bank = 2.67 *ft* ***Ok***
Water level over center line of top lamp of first UV bank = *0.17 ft or 2.042 in*
Note: Water level upstream of first UV Bank Shall not Exceed 2.75 ft.

[SUBMERGED ORIFICE (CIRCULAR)] **{ 3 }**

Flow 2.6 mgd = 4.1 cfs

Downstream WSE 199.57 ft
Downstream Depth, d 2.67 ft = 32.0 inches
Number of water covered rows: 10
Number of Ports 105 **(105 total holes in baffle plate)**
Flow Per Port 0.02514 mgd = 0.0 cfs
Port Diameter 0.1666667 ft = 2.0 inches
Upstream Invert El. 196.90 ft
Discharge Coefficient, C 0.61
Velocity through port, v 1.78 fps

Orifice Energy Loss, h_L 0.13 ft

Condition Upstream of Orifice		199.65	199.70

[CHANNEL FRICTION LOSSES] **{ 5 }**

Flow, Q 2.64 mgd = 4.1 cfs
Channel Width 2.33 ft
Total Channel Length 12.00
Downstream Invert El 196.90
Channel Slope 0.00%
Manning Coeff, n 0.013

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	196.90	196.90	2.80	0.626	0.82	0.000	----	----	199.70	199.70
2.4	196.90	196.90	2.80	0.626	0.82	0.000	0.000	0.00	199.70	199.70
4.8	196.90	196.90	2.80	0.626	0.82	0.000	0.000	0.00	199.70	199.70
7.2	196.90	196.90	2.80	0.626	0.82	0.000	0.000	0.00	199.70	199.70
9.6	196.90	196.90	2.80	0.626	0.82	0.000	0.000	0.00	199.70	199.70
12.0	196.90	196.90	2.80	0.626	0.82	0.000	0.000	0.00	199.70	199.70

TOTAL ENERGY LOSS *0.00 ft*

PROJECT : CMC WWTP Evaluation
PHWWF (13.2 MGD)

JOB # : 9723A.00 **REVISION:**

CHECKED : BS **DATE :** 2/7/2011 **BY :** ETC **DATE :** 11/18/2014

			Equation Ref.	HGL	EGL
Condition at Upstream End of Channel				199.70	199.70

PARSHALL FLUME { 13 }

Flow, Q =	2.6	mgd	
	4.1	cfs	(0.3 < Q < 100)
Downstream WSE =	199.70	ft	
Downstream EGL =	199.70	ft	
Throat width =	0.8	ft	(available sizes = 1, 2, 3, 3.5, 4, 5, 6, 7, and 8 (W-2 Contract Drawings)
Flume invert elevation =	199.30	ft	
Upstream channel width =	2.33	ft	
Downstream depth, Hb =	0.40	ft	
Upstream depth, Ha =	1.23	ft	
Upstream velocity =	1.43	fps	
Submergence =	**32.4**	%	
Headloss =	0.861	ft	** NOT USED **

WSE Upstream of Flume	200.53	200.56

[CHANNEL FRICTION LOSSES] { 5 }

Flow, Q	2.64	mgd =	4.1	cfs
Channel Width	2.33	ft		
Total Channel Length	11.00			
Downstream Invert El	199.05			
Channel Slope	0.00%			
Manning Coeff, n	0.013			

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	199.05	199.05	1.49	1.179	0.65	0.000	----	----	200.54	200.56
2.2	199.05	199.05	1.49	1.179	0.65	0.000	0.000	0.00	200.54	200.56
4.4	199.05	199.05	1.49	1.178	0.65	0.000	0.000	0.00	200.54	200.56
6.6	199.05	199.05	1.49	1.178	0.65	0.000	0.000	0.00	200.54	200.56
8.8	199.05	199.05	1.49	1.178	0.65	0.000	0.000	0.00	200.54	200.56
11.0	199.05	199.05	1.49	1.177	0.65	0.000	0.000	0.00	200.54	200.56

TOTAL ENERGY LOSS *0.00 ft*

Condition at Upstream End of Channel	200.54	200.56

[GATE - RECTANGULAR OPENING] (UV Influent upstream of Parshall Flume) { 14 }

Flow, Q	2.6	mgd =	4.1	cfs
Gate Width	2.33	ft		
Full Height of Opening	3	ft		
Gate Percent Open	100%			
Discharge Coefficient, C	0.61			
Velocity through gate, v	0.58	fps		
Energy Loss thru Gate, h_L	0.01	ft		

Condition Upstream of Gate	200.57	200.57

Channel FLOW SPLIT (Flow From UV Influent Split Box Into Each Individual UV Channel)

Downstream Flow	2.6	mgd =	4.1	cfs	Number of Duty Channels	3
New Flow	7.9	mgd =	12.3	cfs		

[Influent CHANNEL FRICTION LOSSES] (UV Influent 16 feet X 5 feet) { 5 }

Flow, Q	7.92	mgd =	12.3	cfs
Channel Width	16.00	ft		
Total Channel Length	5.00			
Downstream Invert El	191.00			

		Equation Ref.	HGL	EGL

Channel Slope 0.00%
Manning Coeff, n 0.013

Station	Invert Up	Invert Down	Depth (ft)	Vel. (fps)	Hydr. Radius (ft)	Sf	Avg. Sf	Friction Loss (ft)	HGL	EGL
0.0	191.00	191.00	9.57	0.080	4.36	0.000	----	----	200.57	200.57
1.0	191.00	191.00	9.57	0.080	4.36	0.000	0.000	0.00	200.57	200.57
2.0	191.00	191.00	9.57	0.080	4.36	0.000	0.000	0.00	200.57	200.57
3.0	191.00	191.00	9.57	0.080	4.36	0.000	0.000	0.00	200.57	200.57
4.0	191.00	191.00	9.57	0.080	4.36	0.000	0.000	0.00	200.57	200.57
5.0	191.00	191.00	9.57	0.080	4.36	0.000	0.000	0.00	200.57	200.57

TOTAL ENERGY LOSS *0.00 ft*

Condition at Upstream End of Channel 200.57 200.57

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] (20 inch Filter Effluent) **{ 4 }**

Flow 7.9 mgd = 12.3 cfs

Pipe Diameter, D 30 inch
Pipe Length, L 450 ft
Absolute Roughness, ε 0.00040 ft
Pipe velocity, v 2.50 fps
Kinematic Viscosity 1.000E-05 ft^2/sec
Reynold's Number, R 624001
Friction factor, f 0.0147 Equivalent Hazen-Williams "C" = 144.3961

Friction Energy Loss, h_L 0.26 ft

MINOR PIPE LOSS HEADING (20 inch Filter Effluent Pipe)

Flow, Q 7.9 mgd = 12.3 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
2	90 º Elbow - Regular Fl.	7.92	12.25	0.30	30	----	2.50	----	0.10	0.06
1	Outlet Loss - Still Water	7.92	12.25	1.00	30	----	2.50	----	0.10	0.10
									Sum =	0.15

Total Energy Loss = 0.41 ft

Upstream Condition 200.99 200.99

FLOW SPLIT (20 inch East Dynasand Effluent combined with 16 inch West Effluent)
FLOW SPLIT

Downstream Flow 7.9 mgd = 12.3 cfs

New Flow 4.0 mgd = 6.1 cfs

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] (16 inch West Dynasand) **{ 4 }**

Flow 4.0 mgd = 6.1 cfs

Pipe Diameter, D 16 inch
Pipe Length, L 56 ft
Absolute Roughness, ε 0.00040 ft
Pipe velocity, v 4.39 fps
Kinematic Viscosity 1.000E-05 ft^2/sec
Reynold's Number, R 585001
Friction factor, f 0.0161 Equivalent Hazen-Williams "C" = 139.1119

	Equation Ref.	HGL	EGL

Friction Energy Loss, h_L 0.20 ft

MINOR PIPE LOSS HEADING (16 inch Western Dynasand Effluent)

Flow, Q 4.0 mgd = 6.1 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Increaser	3.96	6.13	0.25	16	20	4.39	2.81	0.18	0.04
1	Wye - Thru Straight Run	2.26	3.50	0.45	16	----	2.51	----	0.10	0.04
1	Wye - Thru Straight Run	1.70	2.63	0.45	16	----	1.88	----	0.05	0.02
1	Wye - Thru Straight Run	1.13	1.75	0.45	16	----	1.25	----	0.02	0.01
									Sum =	0.12

Total Energy Loss = 0.33 ft

Upstream Condition 201.31 201.31

FLOW SPLIT (20 inch Dynasand Effluent to 8 inch Effluent)

Downstream Flow 4.0 mgd = 6.1 cfs

New Flow 0.6 mgd = 0.9 cfs

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] (8 inch Dynasand Effluent) **{ 4 }**

Flow 0.6 mgd = 0.9 cfs

Pipe Diameter, D 8 inch
Pipe Length, L 15 ft
Absolute Roughness, ε 0.00040 ft
Pipe velocity, v 2.51 fps
Kinematic Viscosity 1.000E-05 ft^2/sec
Reynold's Number, R 167143
Friction factor, f 0.0196 Equivalent Hazen-Williams "C" = 139.1889

Friction Energy Loss, h_L 0.04 ft

MINOR PIPE LOSS HEADING (8 inch Effluent Pipe to Dynasand Cell)

Flow, Q 0.6 mgd = 0.9 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Wye - Thru Side Outlet	0.57	0.88	1.35	8	----	2.51	----	0.10	0.13
1	45 º Bend - Regular Fl.	0.57	0.88	0.23	8	----	2.51	----	0.10	0.02
1	90 º Elbow - Regular Fl.	0.57	0.88	0.30	8	----	2.51	----	0.10	0.03
1	90 º Elbow - Regular Fl.	0.57	0.88	0.30	8	----	2.51	----	0.10	0.03
1	Increaser	0.57	0.88	0.25	8	16	2.51	0.63	0.09	0.02
1	Entrance Loss - Flush	0.57	0.88	0.50	----	8	----	2.51	0.10	0.05
									Sum =	0.28

Total Energy Loss = 0.33 ft

Upstream Condition 201.64 201.64

Dynasand Effluent Weir Trough Elevation	202.57
Head Available (feet)	0.93
WSE at Filter Feed Box	207.17
WSE in Filter Feed Pump Station	206.50
Freeboard at Secondary Clarifier	-0.60
Static Lift	0.67

FLOW SPLIT

				Equation Ref.	HGL	EGL
Downstream Flow	0.6 mgd =	0.9 cfs				
New Flow	7.9 mgd =	12.3 cfs				

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	7.9 mgd =	12.3 cfs
Pipe Diameter, D	30 inch	
Pipe Length, L	525 ft	
Absolute Roughness, ε	0.00040 ft	
Pipe velocity, v	2.50 fps	
Kinematic Viscosity	1.000E-05 ft^2/sec	
Reynold's Number, R	624001	
Friction factor, f	0.0147	Equivalent Hazen-Williams "C" = 144.3961
Friction Energy Loss, h_L	0.30 ft	

MINOR PIPE LOSS HEADING

Flow, Q 7.9 mgd = 12.3 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Outlet Loss - Still Water	7.92	12.25	1.00	30	----	2.50	----	0.10	0.10
2	45 º Bend - Regular Fl.	7.92	12.25	0.23	30	----	2.50	----	0.10	0.04
1	90 º Elbow - Regular Fl.	7.92	12.25	0.30	30	----	2.50	----	0.10	0.03
1	Wye - Thru Straight Run	7.92	12.25	0.45	30	----	2.50	----	0.10	0.04
									Sum =	0.21

Total Energy Loss = 0.51 ft

	HGL	EGL
Upstream Condition	207.01	207.01

FLOW SPLIT

Downstream Flow	7.9 mgd =	12.3 cfs	
New Flow	5.3 mgd =	8.2 cfs	

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	5.3 mgd =	8.2 cfs
Pipe Diameter, D	30 inch	
Pipe Length, L	110 ft	
Absolute Roughness, ε	0.00040 ft	
Pipe velocity, v	1.66 fps	
Kinematic Viscosity	1.000E-05 ft^2/sec	
Reynold's Number, R	416001	
Friction factor, f	0.0153	Equivalent Hazen-Williams "C" = 146.0638
Friction Energy Loss, h_L	0.03 ft	

MINOR PIPE LOSS HEADING

Flow, Q 5.3 mgd = 8.2 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Wye - Thru Straight Run	5.28	8.17	0.45	30	----	1.66	----	0.04	0.02

				Equation Ref.	HGL	EGL
		Sum =	0.02			
Total Energy Loss =	0.05 ft					
			Upstream Condition		207.06	207.06

FLOW SPLIT

Downstream Flow	5.3	mgd =	8.2	cfs
New Flow	2.6	mgd =	4.1	cfs

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	2.6	mgd =	4.1	cfs
Pipe Diameter, D	30	inch		
Pipe Length, L	100	ft		
Absolute Roughness, ε	0.00040	ft		
Pipe velocity, v	0.83	fps		
Kinematic Viscosity	1.000E-05	ft^2/sec		
Reynold's Number, R	208000			
Friction factor, f	0.0167	Equivalent Hazen-Williams "C" =	147.4178	
Friction Energy Loss, h_L	0.01 ft			

MINOR PIPE LOSS HEADING

Flow, Q	2.6	mgd =	4.1	cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Entrance Loss - Flush	2.64	4.08	0.50	----	30	----	0.83	0.01	0.01
1	45 º Bend - Regular Fl.	2.64	4.08	0.23	30	----	0.83	----	0.01	0.00
									Sum =	0.01

Total Energy Loss = 0.02 ft

				Equation Ref.	HGL	EGL
			Upstream Condition		207.08	207.08

[V-NOTCH WEIR]

Flow	2.6	mgd =	4.1	cfs	
WSE Downstream of Weir	207.08	ft		TOW	208.93
Weir Crest Elevation	207.68	ft			
Downstream head, Hd	-0.60	ft			
Weir Length	204.20	ft			
Distance Between Notches	6.00	in			
Number of Notches	408				

WEIR IS FREE-DISCHARGING

Free Discharging Weir Computation **{ 8 }**

Head on Weir, H	0.11	ft
Upstream WSE	207.79	ft

Submerged Weir Computation **{ 9 }**

K	NA	
M	NA	
Increment	NA	ft
Upstream Head, Hu1	NA	ft
F(H1)	NA	
F'(H1)	NA	
Upstream Head, Hu2	NA	ft
Upstream WSE	NA	ft

				Equation Ref.	HGL	EGL
Head over Weir	*0.11 ft*					
			WSE in Secondary Clarifier		207.79	207.79

FLOW SPLIT

Downstream Flow	2.6	mgd =	4.1 cfs	**Flow Conditions**	
				PHWWF (CMC)	**5.3 mgd**
				PHWWF (CMC)	**8.0 mgd**
New Flow	4.0	mgd =	6.2 cfs	**RAS**	**50 percent of inf**

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	4.0	mgd =	6.2 cfs
Pipe Diameter, D	24	inch	
Pipe Length, L	20	ft	
Absolute Roughness, ε	0.00040	ft	
Pipe velocity, v	1.96	fps	
Kinematic Viscosity	1.000E-05	ft^2/sec	
Reynold's Number, R	392955		
Friction factor, f	0.0158	Equivalent Hazen-Williams "C" =	144.7564
Friction Energy Loss, h_L	0.01 ft		

MINOR PIPE LOSS HEADING

Flow, Q 4.0 mgd = 6.2 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Outlet Loss - Still Water	3.99	6.17	1.00	24	----	1.96	----	0.06	0.06
1	90 º Elbow - Regular Fl.	3.99	6.17	0.30	24	----	1.96	----	0.06	0.02
									Sum =	0.08

Total Energy Loss = 0.09 ft

		207.88	207.88

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	4.0	mgd =	6.2 cfs
Pipe Diameter, D	24	inch	
Pipe Length, L	500	ft	
Absolute Roughness, ε	0.00040	ft	
Pipe velocity, v	1.96	fps	
Kinematic Viscosity	1.000E-05	ft^2/sec	
Reynold's Number, R	392955		
Friction factor, f	0.0158	Equivalent Hazen-Williams "C" =	144.7564
Friction Energy Loss, h_L	0.24 ft		

MINOR PIPE LOSS HEADING

Flow, Q 4.0 mgd = 6.2 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Entrance Loss - Flush	3.99	6.17	0.50	----	24	----	1.96	0.06	0.03
1	45 º Bend - Regular Fl.	3.99	6.17	0.23	24	----	1.96	----	0.06	0.01

											Equation Ref.	HGL	EGL
1	90 º Elbow - Regular Fl.	3.99	6.17	0.30	24	----	1.96	----	0.06	0.02			
									Sum =	0.06			
	Total Energy Loss =	0.30 ft											
												208.18	208.18

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	4.0	mgd =	6.2 cfs
WSE Downstream of Weir	208.18	ft	
Weir Crest Elevation	208.68	ft	
Downstream head, Hd	-0.50	ft	
Length of Weir, L	5.00	ft	

WEIR IS FREE-DISCHARGING

Free Discharging Weir Computation **{ 6 }**

Head on Weir, H	0.52	ft
Upstream WSE	209.20	ft

Submerged Weir Computation **{ 7 }**

K	NA	
M	NA	
Increment	NA	ft
Upstream Head, Hu1	NA	ft
F(H1)	NA	
F'(H1)	NA	
Upstream Head, Hu2	NA	ft
Upstream WSE	NA	ft
Head over Weir	*0.52*	*ft*

WSE in Effluent Box of ML Splitter Structure 209.20 209.20

FLOW SPLIT

Downstream Flow	4.0	mgd =	6.2 cfs
New Flow	10.0	mgd =	15.4 cfs

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	10.0	mgd =	15.4 cfs
Pipe Diameter, D	36	inch	
Pipe Length, L	250	ft	
Absolute Roughness, ε	0.00040	ft	
Pipe velocity, v	2.18	fps	
Kinematic Viscosity	1.000E-05	ft^2/sec	
Reynold's Number, R	654926		
Friction factor, f	0.0144	Equivalent Hazen-Williams "C" =	145.5241
Friction Energy Loss, h_L	0.09 ft		

MINOR PIPE LOSS HEADING

Flow, Q	10.0	mgd =	15.4 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Outlet Loss - Still Water	9.98	15.43	1.00	36	----	2.18	----	0.07	0.07
1	Entrance Loss - Flush	9.98	15.43	0.50	----	36	----	2.18	0.07	0.04
1	90 º Elbow - Regular Fl.	9.98	15.43	0.30	36	----	2.18	----	0.07	0.02
									Sum =	0.13

			Equation Ref.	HGL	EGL
Total Energy Loss =	0.22 ft				
		WSE in Influent Box of ML Splitter Structure		209.42	209.42

FLOW SPLIT

Downstream Flow	10.0	mgd =	15.4	cfs
New Flow	5.0	mgd =	7.7	cfs

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	5.0	mgd =	7.7	cfs
WSE Downstream of Weir	209.42	ft		
Weir Crest Elevation	209.61	ft		
Downstream head, Hd	-0.19	ft		
Length of Weir, L	17.50	ft		

WEIR IS FREE-DISCHARGING

Free Discharging Weir Computation			{ 6 }
Head on Weir, H	0.26	ft	
Upstream WSE	209.87	ft	
Submerged Weir Computation			{ 7 }
K	NA		
M	NA		
Increment	NA	ft	
Upstream Head, Hu1	NA	ft	
F(H1)	NA		
F'(H1)	NA		
Upstream Head, Hu2	NA	ft	
Upstream WSE	NA	ft	
Head over Weir	*0.26*	*ft*	

		WSE in Oxidation Ditch	209.87	209.87

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] { 4 }

Flow	5.0	mgd =	7.7	cfs
Pipe Diameter, D	24	inch		
Pipe Length, L	375	ft		
Absolute Roughness, ε	0.00040	ft		
Pipe velocity, v	2.46	fps		
Kinematic Viscosity	1.000E-05	ft^2/sec		
Reynold's Number, R	491194			
Friction factor, f	0.0155	Equivalent Hazen-Williams "C" =	143.7954	
Friction Energy Loss, h_L	0.27	ft		

MINOR PIPE LOSS HEADING

Flow, Q	5.0	mgd =	7.7	cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
1	Entrance Loss - Flush	4.99	7.72	0.50	----	24	----	2.46	0.09	0.05
1	Outlet Loss - Still Water	4.99	7.72	1.00	24	----	2.46	----	0.09	0.09
1	90 º Elbow - Regular Fl.	4.99	7.72	0.30	24	----	2.46	----	0.09	0.03
									Sum =	0.17

Total Energy Loss =	0.44 ft			
		WSE in Effluent Box of Oxidation Ditch Splitter Structure	210.31	210.31

				Equation Ref.	HGL	EGL

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	5.0	mgd =	7.7 cfs
WSE Downstream of Weir	210.31	ft	
Weir Crest Elevation	210.75	ft	
Downstream head, Hd	-0.44	ft	
Length of Weir, L	5.00	ft	

WEIR IS FREE-DISCHARGING

Free Discharging Weir Computation **{ 6 }**

Head on Weir, H	0.60	ft
Upstream WSE	211.35	ft

Submerged Weir Computation **{ 7 }**

K	NA	
M	NA	
Increment	NA	ft
Upstream Head, Hu1	NA	ft
F(H1)	NA	
F'(H1)	NA	
Upstream Head, Hu2	NA	ft
Upstream WSE	NA	ft
Head over Weir	*0.60*	*ft*

	HGL	EGL
WSE in Influent Box of Oxidation Ditch Splitter Structure	211.35	211.35

FLOW SPLIT

Downstream Flow	5.0	mgd =	7.7 cfs
New Flow	5.2	mgd =	8.0 cfs

[PIPE FRICTION LOSSES (DARCY-WEISBACH / COLEBROOK)] **{ 4 }**

Flow	5.2	mgd =	8.0 cfs
Pipe Diameter, D	24	inch	
Pipe Length, L	100	ft	
Absolute Roughness, ε	0.00040	ft	
Pipe velocity, v	2.56	fps	
Kinematic Viscosity	1.000E-05	ft^2/sec	
Reynold's Number, R	512122		
Friction factor, f	0.0154	Equivalent Hazen-Williams "C" =	143.5948
Friction Energy Loss, h_L	0.08	ft	

MINOR PIPE LOSS HEADING

Flow, Q 5.2 mgd = 8.0 cfs

No.	Description	Flow (mgd)	Flow (cfs)	K	Dia Up (in)	Dia Down (in)	Vel Up (fps)	Vel Down (fps)	Vel Head (ft)	Minor Loss (ft)
2	90 º Elbow - Regular Fl.	5.20	8.04	0.30	24	----	2.56	----	0.10	0.06
1	Outlet Loss - Still Water	5.20	8.04	1.00	24	----	2.56	----	0.10	0.10
1	Entrance Loss - Rounded	5.20	8.04	0.23	----	24	----	2.56	0.10	0.02
1	Tee - Thru Straight Run	5.20	8.04	0.60	24	----	2.56	----	0.10	0.06
									Sum =	0.16

Total Energy Loss = 0.33 ft

	HGL	EGL
WSE in Fine Screen Facility (Downstream of Screen)	211.67	211.67
Loss through Fine Screen	0.91	
WSE Upstream if Fine Screen	212.58	

PROJECT : CMC WWTP Evaluation
PHWWF (13.2 MGD)

JOB # : 9723A.00 **REVISION:**

CHECKED : BS **BY :** ETC
DATE : 2/7/2011 **DATE :** 11/18/2014

	Equation Ref.	HGL	EGL
Top of Slab at Fine Screen		214.29	
Freeboard at Fine Screen		1.71	
Loss from Aerated Grit Chamber to Fine Screen		0.7	
WSE in Aerated Grit Effluent Channel		213.28	

[STRAIGHT EDGED SHARP CRESTED WEIR]

Flow	5.2	mgd =	8.0	cfs
WSE Downstream of Weir	213.28	ft		
Weir Crest Elevation	213.00	ft		
Downstream head, Hd	0.28	ft		
Length of Weir, L	14.00	ft		

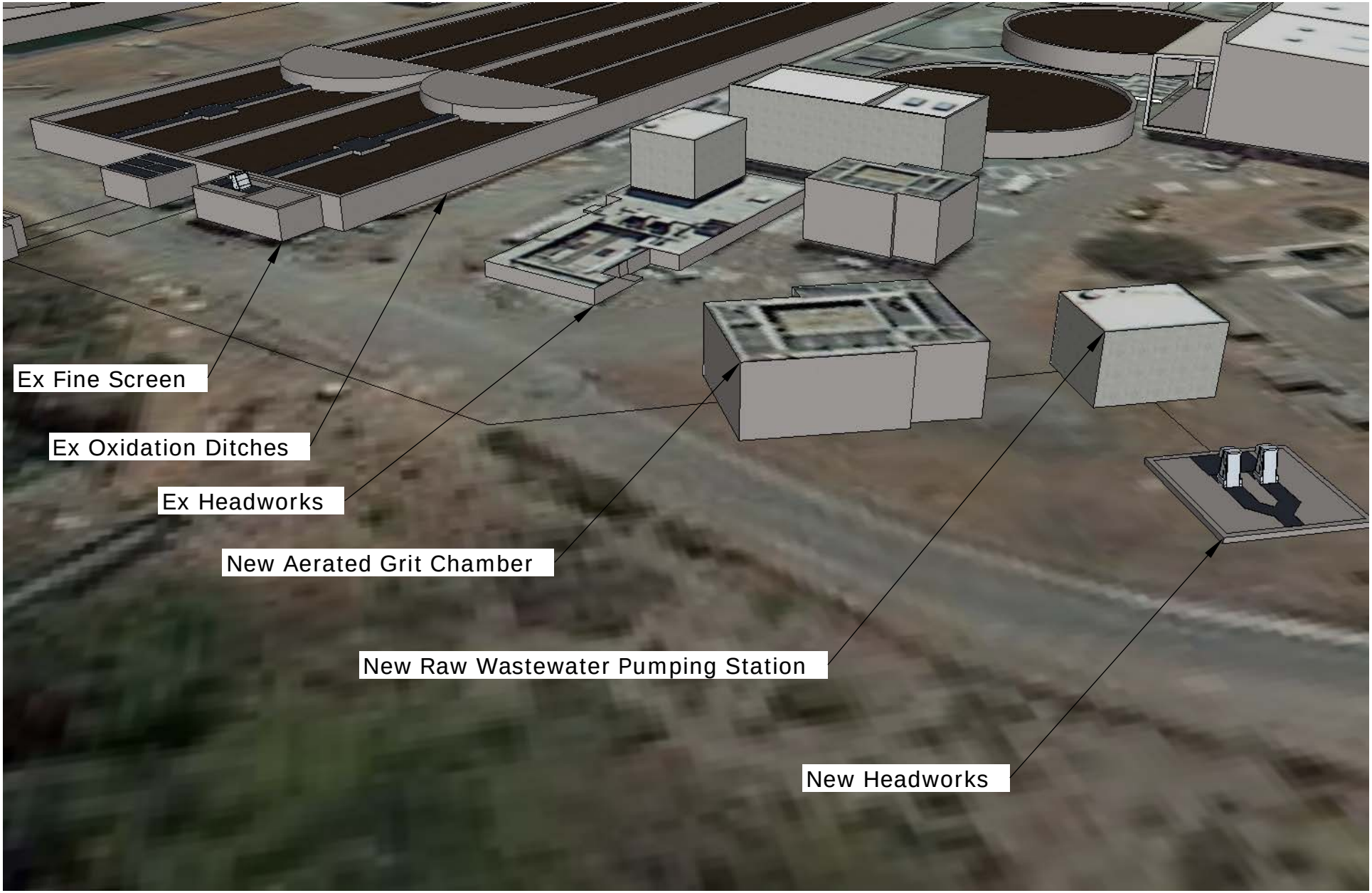
WEIR IS SUBMERGED

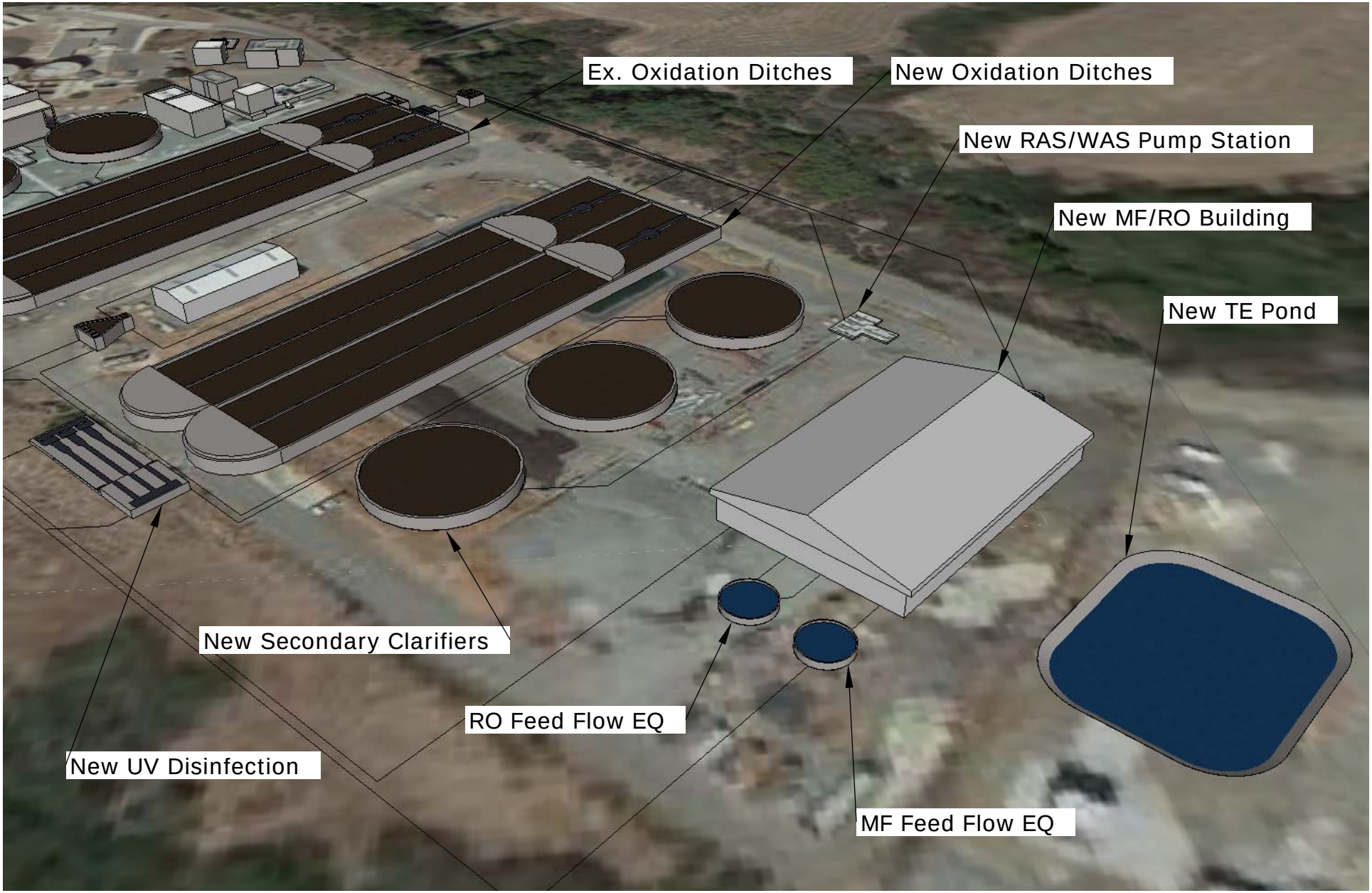
Free Discharging Weir Computation			{6}
Head on Weir, H	NA	ft	
Upstream WSE	NA	ft	
Submerged Weir Computation			{7}
K	0.01		
M	0.15		
Increment	0.10	ft	
Upstream Head, Hu1	0.40	ft	
F(H1)	0.00		
F'(H1)	-6.16		
Upstream Head, Hu2	0.40	ft	
Upstream WSE	213.40	ft	
Head over Weir	*0.40*	*ft*	

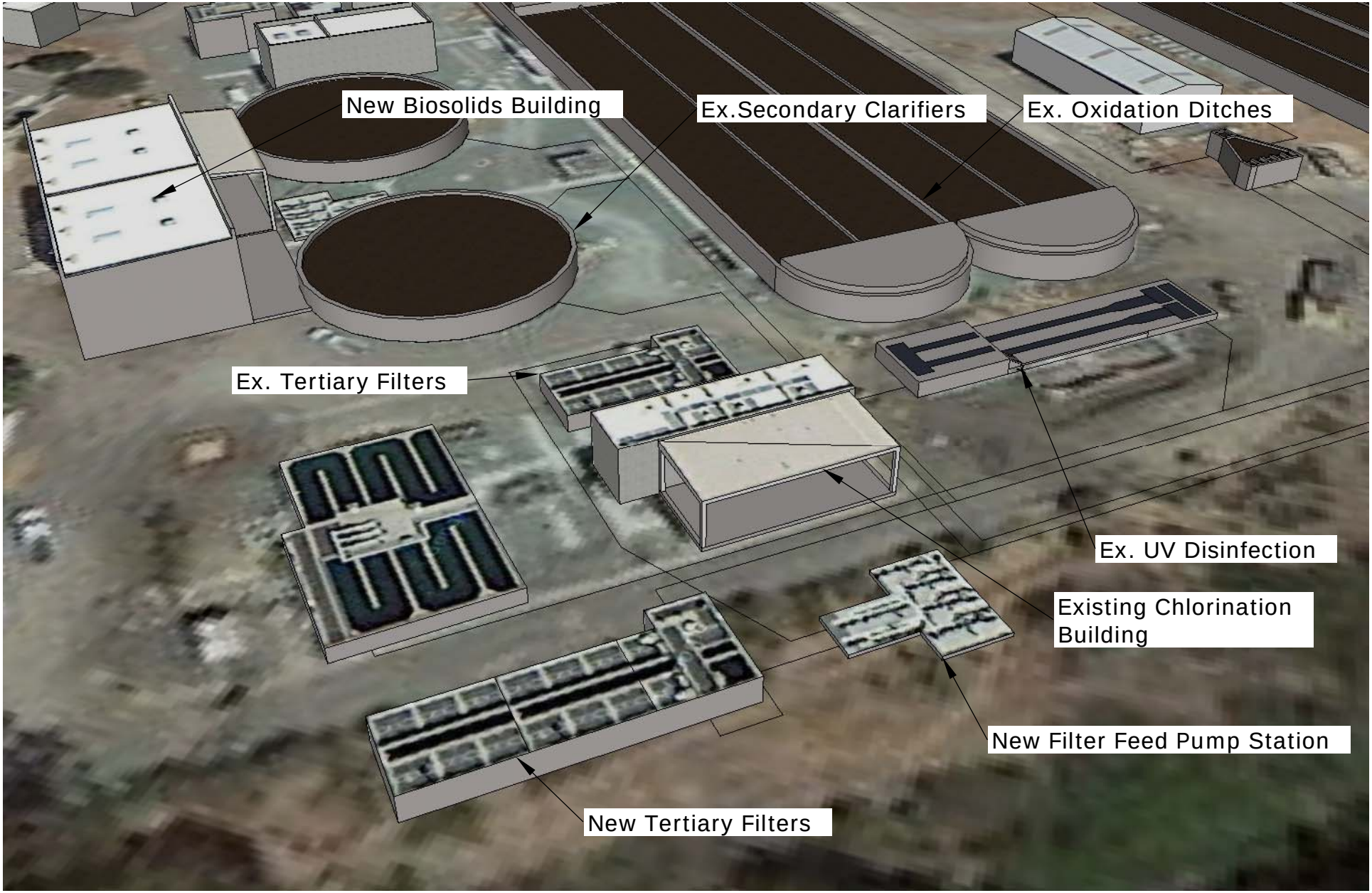
WSE in Aerated Grit Chamber	213.40	213.40

APPENDIX C – CONCEPTUAL SITE RENDERINGS

New Headworks
New Raw Wastewater Pumping Station
New Aerated Grit Chamber
New Oxidation Ditch
New RAS/WAS Pumping Station
New Biosolids Building
New Tertiary Filters
New Filter Feed Pumping Station
New UV Disinfection
New Secondary Clarifiers
New MF/RO Building


Ex Fine Screen
Ex Oxidation Ditches
Ex Headworks
New Aerated Grit Chamber
New Raw Wastewater Pumping Station
New Headworks


Ex. Oxidation Ditches
New Oxidation Ditches
New RAS/WAS Pump Station
New MF/RO Building
New TE Pond
New Secondary Clarifiers
RO Feed Flow EQ
New UV Disinfection
MF Feed Flow EQ


New Biosolids Building
Ex.Secondary Clarifiers
Ex. Oxidation Ditches
Ex. Tertiary Filters
Ex. UV Disinfection
Existing Chlorination Building
New Filter Feed Pump Station
New Tertiary Filters

APPENDIX D – PROPOSED CONVEYANCE PIPELINE ALIGNMENT

Possible Force Main Alignment

1 inch:2,420 feet

MAP NOTES:
2011 AERIAL PHOTO PROVIDED BY COUNTY OF SAN LUIS OBISPO.

MKA

APPENDIX E – POSSIBLE FRAMEWORK FOR COOPERATION WITH CDCR

MICHAEL K NUNLEY & ASSOCIATES
WATER WASTEWATER WATER REUSE

P O Box 1604
Arroyo Grande CA 93421

tel 805 904 6530
www.mknassociates.us

MEMORANDUM

To: Rob Livick, Bruce Keogh, Rick Sauerwein - City of Morro Bay; Rick Koon – Cayucos Sanitary District; Fred Cordano, Jeff Stanley, Troy King, Peter Regan – California Department of Corrections and Rehabilitation; Mark Hutchinson, County of San Luis Obispo; Ken Harris, Regional Water Quality Control; John Rickenbach, JFR Consulting

From: Michael K. Nunley, PE

Date: December 5, 2014

Re: Possible Framework for Cooperation in a Regional California Men's Colony (CMC) Wastewater Treatment Facility

Over the past year, the City of Morro Bay (City) and Cayucos Sanitary District have explored possible sites for a new wastewater treatment facility to replace the existing Morro Bay /Cayucos Sanitary District (CSD) Wastewater Treatment Facility. Regional collaboration for expansion of the existing California Men's Colony (CMC) Wastewater Treatment Plant (WWTP) is being considered by the City, CSD, Regional Water Quality Control Board, San Luis Obispo County, and California Department of Corrections and Rehabilitation (CDCR) who owns and operates the facilities.

This memorandum summarizes conversations among CDCR, City, and District staff regarding a possible framework for development and operating an upgraded CMC facility. The roles, responsibilities, and major tasks identified during these discussions are provided below. There are many approaches that could be pursued for this alternative; however, the most feasible approach from the CDCR perspective is discussed herein.

Required Facilities

The major facilities required for a regional CMC facility are briefly described below and a detailed project description is being developed in the CMC Capacity Evaluation by Carollo Engineers (report is incomplete, but in progress):

- Raw wastewater pump station and 8 miles of force main from Morro Bay to CMC
- Wastewater treatment plant upgrades (primary, secondary, filtration, disinfection, desalination, and ancillary)
- 8 miles of brine discharge line from CMC to City/CSD WWTP ocean outfall

Agencies

The agencies that would be most directly involved in this expanded facility, and their roles, are discussed below:

- California Department of Corrections and Rehabilitation (CDCR) – CDCR would retain ownership of the facility. CDCR will be the permittee for the National Pollutant Discharge Elimination System (NPDES) permit and Waste Discharge Requirements (WDRs) for plant discharge to Chorro Creek. CDCR will not be responsible for any improvements outside of the plant site or for any onsite

improvements that are not required specifically for CMC's wastewater service. For example, CDCR will not be responsible for desalination of plant effluent unless wastewater from their facilities resulted in an exceedance of the permit limit for total dissolved solids (TDS). CDCR will also not be responsible for permitting, planning, design, or construction of the raw wastewater pump station, force main, or brine discharge line to the ocean. .

- County of San Luis Obispo – The County would manage project development including permitting, design, construction and finally operation of the completed facility. Either the County, City, CSD, or a partnership of these agencies would be the permittee for the NPDES permit and WDRs for brine discharge to the ocean.

- City of Morro Bay and Cayucos Sanitary District – The City and CSD would likely be customers of the CDCR facility or possibly partners within a Joint Powers Authority (JPA) or similar partnership. Either the County or the City and CSD will be responsible for design, construction, and/or operation of the raw wastewater lift station, force main, and brine discharge pipeline to the City's ocean outfall. These agencies would also be the permittee(s) for the NPDES permit and WDRs for brine discharge to the ocean.

- Camp San Luis Obispo and Cuesta College – Camp San Luis Obispo and Cuesta College would be customers of the CDCR facility, as they are now, or possibly partners within a JPA or similar partnership.

Coordination with CDCR

Over the first 12 months, CDCR staff would perform review of potential "fatal flaws" in this concept related to property rights, jurisdiction, and bonds for previous CMC construction projects. CDCR staff would consult with their own real estate staff, Department of General Services, and the military to review these issues. They noted this was "uncharted territory" for CDCR so they could not predict the likely outcome of these discussions.

CDCR staff have noted that they have agreements for solar power and cogeneration facilities that allow a third party to enter into a long-term lease with CDCR, develop and own power generation facilities, and guarantee a long-term utility rate. The County might be able to enter into a similar arrangement with CDCR for wastewater service but the cost of purchasing the wastewater facilities must be added to the overall project cost. This could simplify the agreements and project development, since the County could own the wastewater facilities and provide operations, but could add project cost.

Simultaneously, CDCR and the County would begin negotiating an operations agreement. This agreement would likely also involve the County taking over operation of the CMC water system, and CDCR noted it would be about 3 months before completion of an ongoing study of the water supply facilities. This study will be critical to complete CDCR's negotiations with the County.

Review, retirement, and refinement of existing agreements, and likely development of new agreements among the County, CMC, and existing water and wastewater customers, would be required. The County would need to develop agreements with all parties to recoup wastewater project planning, design, construction, and operating costs and also to address the water facilities. CDCR will not be responsible for any of the capital or additional operating costs associated with the proposed improvements.

Legal review of the proposed improvements would also be required after CDCR staff has performed an initial review.

Concurrently, the County, City and CSD would develop a Facility Master Plan that addresses all project elements identified in the first section of this Memorandum. The Master Plan will provide project alternatives, identify lifecycle costs, determine cost-sharing arrangements, and provide a complete project description for review and approval by the partnering agencies.

A complete proposal will be required prior to review and consideration by the State Public Works Board (SPWB). The proposal would need to address any risk for the upgrade that would be shared by CDCR, particularly since the improvements will be delivered by others and are intended for the direct benefit of agencies other than CDCR. The SPWB process may require 6 months for review and a "go/no-go" decision on the project concept.

The request to develop a regional facility could potentially be denied either during the CDCR staff review and negotiation with the County or by SPWB. If this occurs, the City and CSD would need to develop another project alternative.

Project Schedule

If SPWB approval is granted to continue pursuing the site for expansion, it is assumed the County will lead the permitting, planning, design, and construction efforts with input from the partnering agencies. A conventional project approach is assumed similar to the recent Los Osos effort. It is not likely that design-build or an expedited project approach would allow the level of review and coordination that will be needed among the project stakeholders.

Major impacts to the construction schedule, compared to the City's 5-year project development goal, result from the following factors:

- Additional 18 months for coordination with CDCR and the partnering agencies and SPWB before project can proceed. If state agency approval is not granted, the master planning process would need to be reinitiated for a different project at another location;
- Additional review time for draft documents to accommodate multiple agencies;
- Construction of 6 additional miles of force main and 6 additional miles of brine line (8 miles, compared with 2 miles for each conveyance system for Rancho Colina). It is assumed the pipeline and lift station work will proceed concurrently with the wastewater treatment facility improvements, possibly under separate contracts; and
- Conventional design-bid-build delivery method to promote regular input from all partnering agencies as the project proceeds.

The following figure provides an overview of the anticipated project timeline for major task groups. Tasks on the "critical path" are identified as red bars.

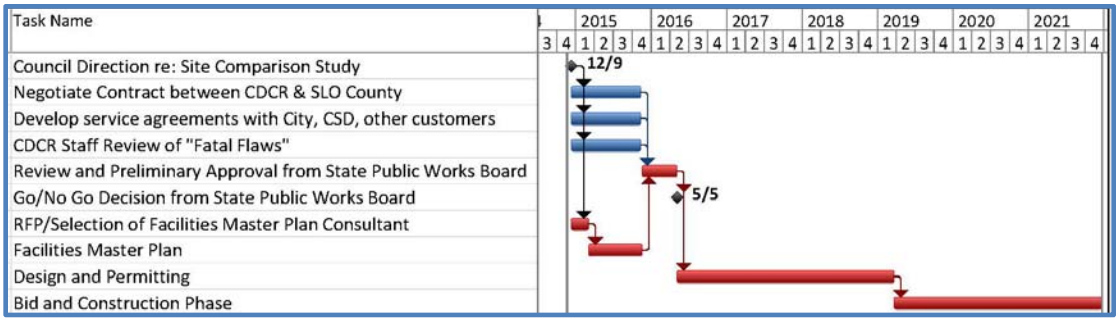


Figure 1 - Conceptual Schedule for Regional CMC Facility

It should be noted that completing the Facilities Master Plan and incorporating input and comments from all the partnering agencies may require more time than the 9 months originally estimated in prior project planning documents. The same duration for the planning effort was assumed for this project as for Rancho Colina but is considered an optimistic goal because of the multiple agencies involved in the CMC process whose schedules and staff availability are out of the control of the City and CSD.

APPENDIX F – COST ESTIMATES FOR PREVIOUS CMC UPGRADE PROJECTS

carollo engineers

UPDATED PROJECT BUDGET ESTIMATE

PROJECT : CALIFORNIA MEN'S COLONY WASTEWATER TREATMENT PLANT IMPROVEMENT PROJECT

DATE : 2/6/2001

JOB # : 4396.D11

BY : BHT/BEH

ELEMENT # : #1 TO #18

ESTIMATE ENR : 6,825

PROJECTED CONSTRUCTION MIDPOINT ENR: 7,400

ELEMENT : OVERALL CONSTRUCTION COST EXCLUDING UNANTICIPATED / OUT OF SCOPE WORK

ELEMENT #	ELEMENT	ESTIMATE COST	COST AT MIDPOINT ENR
1	GENERAL CONDITIONS	$ 776,250	$ 841,650
2	SITE WORK	$ 592,820	$ 642,760
3	YARD PIPING / MISC STRUCTURES	$ 1,348,870	$ 1,462,510
4	HEADWORKS / INFLUENT PUMP STATION	$ 1,464,260	$ 1,587,620
5	MCC / GENERATOR BLDG	$ 501,890	$ 544,170
6	GRIT CHAMBER	$ 322,990	$ 350,200
7	OXIDATION DITCHES	$ 2,879,450	$ 3,122,040
8	CLARIFIERS	$ 1,144,620	$ 1,241,050
9	RAS/WAS PUMP STATION	$ 291,970	$ 316,570
10	TERTIARY FILTERS	$ 972,780	$ 1,054,740
11	CHLORINE CONTACT BASINS	$ 478,870	$ 519,210
12	CHEMICAL STORAGE & HANDLING AREA	$ 396,310	$ 429,700
13	CONVERT DIGESTER #2 TO STORAGE	$ 200,000	$ 216,850
14	BIOSOLIDS DEWATERING BUILDING	$ 2,265,890	$ 2,456,790
15	TEMP SLUDGE CAKE STORAGE	$ 110,750	$ 120,080
16	MAINTENANCE BUILDING	$ 150,540	$ 163,220
17	ELECTRICAL / INSTRUMENTATION	$ 2,225,050	$ 2,412,510
18	TRUNK SEWER	$ 4,502,680	$ 4,882,030
	TOTAL CONSTRUCTION COST @ mid-July 1999 ENR OF 6825 =	**$ 20,625,990**	
	ESTIMATED BID PRICE BASED ON January 2003 ENR OF 7400 =		**$ 22,363,700**

CMC WWTP Disinfection Upgrade
San Luis Obispo, CA.

100% Construction Drawings
Cost Estimate

$5,936,645.07

February 10, 2012

PREPARED FOR:

Carollo Engineers, Inc.
2880 Gateway Oaks Drive, Suite 300
Sacramento, CA 95833

Table of Contents

Cost Estimate Assumptions

Project Recap

Unit Price Recap

Disclaimer

CMC WWTP Disinfection Upgrade

Estimate Notes & Assumptions

1. **Cost Estimate based on 100% CD's dated February 2012, the soils report dated December 2000, and various other documents received from Carollo Eng.**
2. **All materials quoted in this estimate are standard materials used in local state agency projects.**
3. **All construction equipment is sized & priced for local site conditions.**
4. **Labor rates are taken from the latest prevailing wage rate tables (DIR) as of this date**
5. **Contractor to have complete access to project.**
6. **This estimate reflects summertime working conditions unless otherwise noted.**

Exclusions

1. **All tests, fees, permits.**
2. **Removal, relocation, or repair of underground obstructions and/or utilities not shown on the plans or visible from the surface.**
3. **All offsite construction.**

California Department of Corrections
100% CD Cost Estimate

PROJECT: CMC WWTP Upgrade **ESTIMATE DATE: February 10, 2012**

LOCATION: San Luis Obispo, CA. **PLAN & SPEC DATE: February 2012**

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Site Work	L/S	1.00	$70,698.32	**$70,698.32**
Yard Piping	L/S	1.00	$497,275.93	**$497,275.93**
Fine Screen	L/S	1.00	$488,715.05	**$488,715.05**
Secondary Clarifier	L/S	1.00	$149,370.90	**$149,370.90**
Tertiary Filter	L/S	1.00	$33,598.59	**$33,598.59**
CL2 Basin	L/S	1.00	$140,781.36	**$140,781.36**
Effluent Structure	L/S	1.00	$127,631.59	**$127,631.59**
Filter Return PS	L/S	1.00	$78,454.62	**$78,454.62**
Effluent Metering Vault	L/S	1.00	$56,014.03	**$56,014.03**
UV Basin	L/S	1.00	$1,786,028.43	**$1,786,028.43**
CL2 Building	L/S	1.00	$9,571.41	**$9,571.41**
Electrical & Instrumentation	L/S	1.00	$893,610.00	**$893,610.00**
Extra UV Lamps	L/S	1.00	$195,000.00	**$195,000.00**
			Subtotal	**$4,526,750.23**
			10% General Conditions	**$452,675.02**
			6% Overhead & Profit	**$298,765.52**
			2.25% Bonds & Insurance	**$118,759.29**
			10% Construction Contingency	**$539,695.01**
			Total Estimated Cost	**$5,936,645.07**

Disclaimer

Since J.R. Conkey & Associates has no control over the cost of labor, materials, or equipment, or over the contractor's method of determining prices, or over competitive bidding or market conditions, the statement of probable construction cost provided for herein is made on the basis of professional experience and qualifications. The statement represents J.R. Conkey & Associates best judgment as a professional construction consultant familiar with the construction industry. However J.R. Conkey & Associates cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

APPENDIX G – COST ESTIMATE DETAILS FOR PROPOSED WWTP IMPROVEMENTS AND NEW CONVEYANCE FACILITIES

Engineers...Working Wonders With Water®

PROJECT SUMMARY

		Estimate Class:	4
Project:	CMC Capacity Evaluation - WWTP Improvements	PIC:	SGS
Client:	City of Morro Bay	PM:	ETC
Location:	San Luis Obispo, CA	Date:	October 16, 2014
Zip Code:	93401	By:	ETC
Carollo Job #	9723A.00	Reviewed:	BS

NO.	DESCRIPTION		TOTAL
01	General Conditions		$5,088,462
02	Site Work		$1,272,116
03	Yard Piping-Misc. Structures		$3,816,347
04	Influent Pumping-Screening		$2,649,912
05	Aerated Grit Removal		$641,223
06	Oxidation Ditches		$3,555,200
07	RAS-WAS Pump Station		$424,263
08	Secondary Clarifiers		$2,116,238
09	Tertiary Filters		$2,797,138
10	UV Disinfection		$3,072,361
11	Biosolids Dewatering		$2,798,670
12	Electrical-Instrumentation		$7,632,693
13	Microfiltration-Rev Osmosis		$15,020,000
	TOTAL DIRECT COST		**$50,884,622**
	Contingency	30.0%	$15,265,387
	Subtotal		**$66,150,009**
	General Contractor Overhead, Profit & Risk	18.0%	$11,907,002
	Subtotal		**$78,057,011**
	Escalation to Mid-Point (November 2018)	19.4%	$15,147,142
	Subtotal		**$93,204,153**
	Sales Tax (Based on 8.7%)	3.5%	$3,243,505
	Subtotal		**$96,447,658**
	Bid Market Allowance	0.0%	$0
	TOTAL ESTIMATED CONSTRUCTION COST		**$96,447,658**
	Engineering, Legal & Administration Fees	35.0%	$33,756,680
	Owner's Reserve for Change Orders	0.0%	$0
	TOTAL ESTIMATED PROJECT COST		**$130,204,338**

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our professional

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our professional opinion of accurate costs at this time and is subject to change as the project design matures. Carollo Engineers have no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. Carollo Engineers cannot and does not warrant or guarantee that proposals, bids or actual construction costs will not vary from the costs presented as shown.

PROJECT:	CMC Capacity Analysis
JOB NO.:	9723A.00
DATE:	12/2/2014
BY:	BMS
COMMENTS:	
OPTION B:	2.5 MGD RO Permeate

CAPTIAL COST ESTIMATE

Classification	Quantity	Units		Unit Cost		Extended Cost
MF/RO Building [1]	10,000	SF	$	250	$	2,500,000
MF Equipment [2]	3.5	MGD		1,100,000	$	3,850,000
RO Equipment [3]	2.5	MGD	$	840,000	$	2,100,000
MF/RO Chemical Storage and Feed Systems						
Citric Acid	1	LS	$	120,000	$	120,000
Sodium Hydroxide	1	LS	$	150,000	$	150,000
Sodium Bisulfite	1	LS	$	120,000	$	120,000
Sulfuric Acid	1	LS	$	270,000	$	270,000
Scale Inhibitor	1	LS	$	90,000	$	90,000
Sodium Hypochlorite	1	LS	$	150,000	$	150,000
Degasifiers	1	LS	$	240,000	$	240,000
MF/RO Flow and Washwater EQ	1	LS	$	120,000	$	120,000
Process Piping	1	LS	$	800,000	$	800,000
Concentrate Disposal [4]		LS	$	-	$	-
Process Electrical [5]	1	LS	$	3,004,000	$	3,004,000
Process Instrumentation [5]	1	LS	$	1,502,000	$	1,502,000
Subtotal					**$**	**15,020,000**

1. Includes general building HVAC, plumbing, and electrical. Unit price based on pre-engineered metal building type construction. Unit price based on usable square footage.
2. Assumes 0.7 MGD trains in a 4+1 configuration. Trains include feed pumps, membrane skids, piping, pressure vessels, membranes, CIP system, and on-skid instrumentation & control.
3. Assumes 0.5 MGD trains in a 4+1 configuration. Trains include feed pumps, membrane skids, piping, pressure vessels, membranes, CIP system, and on-skid instrumentation & control.
4. Concentrate will be disposed of through the existing outfall. The extended brine line is included in the Conveyance Pipeline cost estimate.
5. Process electical and instrumentation improvements are specific to the MF and RO facilites. Site improvements are included in the overall site electrical line item.

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PROJECT SUMMARY

		Estimate Class:	4
Project:	CMC Capacity Evaluation - RWW Pump Station	PIC:	SGS
Client:	City of Morro Bay	PM:	ETC
Location:	San Luis Obispo, CA	Date:	November 20, 2014
Zip Code:	93401	By:	ETC
Carollo Job #	9723A.00	Reviewed:	BS

NO.	DESCRIPTION			TOTAL
01	General Conditions			$203,638
02	RWW Pump Station			$1,527,284
03	Electrical-Instrumentation			$305,457
				$0
				$0
				$0
				$0
				$0
				$0
				$0
				$0
				$0
				$0
				$0
	TOTAL DIRECT COST			**$2,036,379**
	Contingency		30.0%	$610,914
		Subtotal		**$2,647,292**
	General Contractor Overhead, Profit & Risk		18.0%	$476,513
		Subtotal		**$3,123,805**
	Escalation to Mid-Point		19.4%	$606,181
		Subtotal		**$3,729,986**
	Sales Tax (Based on 8.7%)		3.5%	$129,804
		Subtotal		**$3,859,790**
	Bid Market Allowance		0.0%	$0
	TOTAL ESTIMATED CONSTRUCTION COST			**$3,859,790**
	Engineering, Legal & Administration Fees		35.0%	$1,350,926
	Owner's Reserve for Change Orders		0.0%	$0
	TOTAL ESTIMATED PROJECT COST			**$5,210,716**

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our professional opinion of accurate costs at this time and is subject to change as the project design matures. Carollo Engineers have no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. Carollo Engineers cannot and does not warrant or guarantee that proposals, bids or actual construction costs will not vary from the costs presented as shown.

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CONCEPTUAL PIPELINE MODEL - TYPE "1" TRENCH - CONFINED / URBAN

Version 2.0-4

This template calculates the excavation and backfill volumes for, what we refer to, as **TYPE 1 TRENCHES**, that are either, 1) a totally full height vertical trench, or, 2) a trench with a "vertical pit" (max depth = 4') plus equal unsupported side slopes to the surface. Type 1 Trenchs are usually considered more for "***Urban***" locations because of restricted access and excavation configuration considerations.

The text and numbers in **RED** are the variables to change to fit your project. These are the **ONLY** inputs that need to be changed. All of the other values shown are based on formulas. By using the side slope of: 1 Vert.to **0 Horiz**, a **vertical trench** is obtained. (Refer to Operation Note #4, for complete instructions.). Calculated values appear in the highlighted box with **bold** lettering. These values can be transferred to your estimate worksheet.

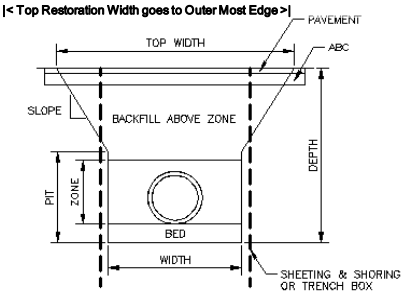
Note: All earthwork quantities are "Bank Measure" volumes without any shrink/swell factors. Operational Notes provided at approximately cell P46.

QUANTITY CALCULATIONS:

TYPE 1 TRENCH

Proj Name/No: **MBCSD RWW Forcemain** Date: **25-Nov-14**
Item: **24" DIP Forcemain** Proj Mgr::
Notes: **MBCSD WWTP to CMC WWTP**
:

DESCRIPTION	INPUT	
Pipe Diameter (Nom.)	24.00	inches
Average **Total** Exc **Depth**	6.50	feet (Include Bed Thickness)
Length	43,200.00	feet
Trench Slope: 1 Vert. to	1.00	Horiz.
Pavement Thickness:	4.00	inches
ABC Depth:	8.00	inches
No.of Pavement Cuts	2.00	Each



Calculated Values

9.0	ft	= Top Trench Width
11.0	ft	= Top Resoration Width

CALCULATED QUANTITIES for ESTIMATE			
Pavement Cutting (per Inch Depth x Length)	=	**172,800**	**In ft**
Pavement Removal	=	**237,600**	**sq ft**
Trench Excavation	=	**51,600**	**cu yd**
Bed + Zone fill (Excludes Pipe Volume)	=	**14,173**	**cu yd**
Zone Only Fill (Excludes Pipe Volume)	=	**10,973**	**cu yd**
Bed Only Fill	=	**3,200**	**cu yd**
Backfill Above Zone	=	**32,400**	**cu yd**
Waste if Import Bed, Zone	=	**19,200**	**cu yd**
Waste if Native Bed, Zone	=	**5,027**	**cu yd**
Surface Restoration Area	=	**237,600**	**sq ft**
Shoring Length	=	**43,200**	**In ft**
Shoring Area	=	**NONE**	**sq ft**

= For driven solid shoring

INPUT VARIABLES

Bed Depth =	6.0	in	Default = 6"
Zone Depth Above Pipe =	6.0	in	Default = 6"
Min. Width =	36.0	in	Indicate Practical Bucket Width
Side Width (per side x 2) =	24.0	in	Default @ 12" per side
Pit Depth =	4.0	ft	**See Note #2, #3 and #4**
	1.0	ft	Add'l **allowance** for surface restoration per side **(see Note #5)**

ESTIMATED COSTS:

DESCRIPTION	QTY	UNIT	$/UNIT	TOTAL	*$/LF*	COMMENTS
Earthwork						
Pavement Cutting	172,800	in FT	**$0.79**	$135,691	*$3.14*	AC Thickness = 4 in
Pavement Removal	237,600	SF	**$0.46**	$110,279	*$2.55*	
Disposal Haul	2,933	CY	**$13.65**	$40,055	*$0.93*	Assumed haul distance is:
Trench Excavation	51,600	CY	**$5.17**	$266,625	*$6.17*	Assumed excavator used is:
Bed + Zone fill	14,173	CY	**$36.87**	$522,517	*$12.10*	Imported confined material used
Zone Only Fill	10,973	CY		$0	*$0.00*	Imported confined material used
Bed Only Fill	3,200	CY		$0	*$0.00*	Imported confined material used
Backfill Above Zone	32,400	CY	**$16.97**	$549,923	*$12.73*	Native unconfined material from trench used
Waste if Import Bed, Zone	19,200	CY		$0	*$0.00*	Assumed haul distance is:
Waste if Native Bed, Zone	5,027	CY	**$13.65**	$68,637	*$1.59*	Assumed haul distance is:
Surface Restoration Area	237,600	SF	**$2.78**	$660,626	*$15.29*	AC replacement is assumed to be:
Shoring Area	43,200	LF	**$4.19**	$180,922	*$4.19*	Trench Bracing, 3' W X 5' D Alum. Hyd. Shores
(Other as Needed)				$0	*$0.00*	
				$0	*$0.00*	Add in Allowances for Dewatering, etc. that might apply.
Earthwork Subtotal				$2,535,275	*$58.69*	
Pipe						Insert pipe type
24" Class 250 DIP CML&C	43,200	LF	**$105.78**	$4,569,605	*$105.78*	
18" Isolation Plug Valves	8	EA	**$5,870.06**	$46,961	*$1.09*	
24"x18" Eccentric Reducers	16	EA	**$8,961.51**	$143,384	*$3.32*	Add in Allowances for Fittings, etc., if needed.
24" Restraining FCAs	16	EA	**$2,206.35**	$35,302	*$0.82*	
24" Fittings (90, 45, 22.5, Tee	1	LS	**$124,626.68**	$124,627	*$2.88*	
Air/Vac Valve	16	EA	**$3,567.31**	$57,077	*$1.32*	
Pipe Subtotal				$4,976,955	*$115.21*	
Miscellaneous						Items may include Valve Boxes, Manholes, etc.
				$0	*$0.00*	
				$0	*$0.00*	
Miscellaneous Subtotal				$0	*$0.00*	
TOTAL DIRECT COST:				**$7,512,229**	***$173.89***	
						Include/exclude adders as needed for report (except as noted)
Indirect Costs						
General Conditions			10.0%	$751,223	*$17.39*	Retain this adder here, unless defined separately
Subtotal				**$8,263,452**	***$191.28***	

Disclaimer: The calculated **quantities** represent "reasonable quantities to perform the work" in Bank Measure. They are not intended to provide "absolute" or "exact" volumes. The execution of earthwork is highly variable due to the unknowns of soil conditions and contractors procedures. The calculated quantities are intended to be used as a general guide ONLY for the basis of the scope of work under consideration. The **cost estimate** herein is based on our perception of current conditions at the project location. This estimate reflects our professional opinion of accurate costs at this time and is subject to change as the project design matures. Carollo Engineers have no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. Carollo Engineers cannot and does not warrant or guarantee that proposals, bids or actual construction costs will not vary from the costs presented as shown.

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CONCEPTUAL PIPELINE MODEL - TYPE "1" TRENCH - CONFINED / URBAN

Version 2.0-4

This template calculates the excavation and backfill volumes for, what we refer to, as **TYPE 1 TRENCHES**, that are either, 1) a totally full height vertical trench, or, 2) a trench with a "vertical pit" (max depth = 4') plus equal unsupported side slopes to the surface. Type 1 Trenchs are usually considered more for "***Urban***" locations because of restricted access and excavation configuration considerations.

The text and numbers in **RED** are the variables to change to fit your project. These are the **ONLY** inputs that need to be changed. All of the other values shown are based on formulas. By using the side slope of: 1 Vert.to **0 Horiz**, a **vertical trench** is obtained. (Refer to Operation Note #4, for complete instructions.). Calculated values appear in the highlighted box with **bold** lettering. These values can be transferred to your estimate worksheet.

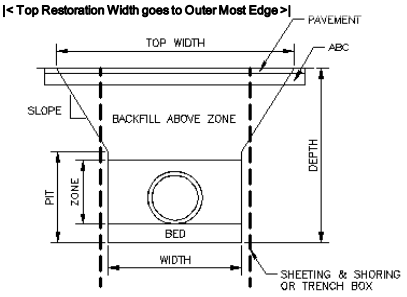
Note: All earthwork quantities are "Bank Measure" volumes without any shrink/swell factors. Operational Notes provided at approximately cell P46.

QUANTITY CALCULATIONS:

TYPE 1 TRENCH

Proj Name/No: **MBCSD Brine Disposal Pipeline** Date: **25-Nov-14**
Item: **8" PVC C905 Forcemain** Proj Mgr::
Notes: **MBCSD WWTP to CMC WWTP**
:

DESCRIPTION	INPUT	
Pipe Diameter (Nom.)	**8.00**	inches
Average **Total** Exc **Depth**	**6.50**	feet (Include Bed Thickness)
Length	**43,200.00**	feet
Trench Slope: 1 Vert. to	**1.00**	Horiz.
Pavement Thickness:	**4.00**	inches
ABC Depth:	**8.00**	inches
No.of Pavement Cuts	**0.00**	Each



CALCULATED QUANTITIES for ESTIMATE			
Pavement Cutting (per Inch Depth x Length)	=	**0**	**In ft**
Pavement Removal	=	**54,000**	**sq ft**
Trench Excavation	=	**30,800**	**cu yd**
Bed + Zone fill (Excludes Pipe Volume)	=	**4,775**	**cu yd**
Zone Only Fill (Excludes Pipe Volume)	=	**3,175**	**cu yd**
Bed Only Fill	=	**1,600**	**cu yd**
Backfill Above Zone	=	**25,467**	**cu yd**
Waste if Import Bed, Zone	=	**5,333**	**cu yd**
Waste if Native Bed, Zone	=	**559**	**cu yd**
Surface Restoration Area	=	**54,000**	**sq ft**
Shoring Length	=	**43,200**	**In ft**
Shoring Area	=	**NONE**	**sq ft**

= For driven solid shoring

Calculated Values
7.0 ft = Top Trench Width
2.5 ft = Top Resoration Width additional

INPUT VARIABLES

Bed Depth =		**6.0** in	Default = 6"
Zone Depth Above Pipe =		**6.0** in	Default = 6"
Min. Width =	Additional	**24.0** in	Indicate Practical Bucket Width
Side Width (per side x 2) =		**16.0** in	Default @ 12" per side
Pit Depth =		**4.0** ft	**See Note #2, #3 and #4**
		1.0 ft	Add'l **allowance** for surface restoration per side **(see Note #5)**

ESTIMATED COSTS:

DESCRIPTION	QTY	UNIT	$/UNIT	TOTAL	*$/LF*	COMMENTS
Earthwork						
Pavement Cutting	0	in FT	**$0.79**	$0	*$0.00*	AC Thickness = 4 in
Pavement Removal	54,000	SF	**$0.46**	$25,063	*$0.58*	
Disposal Haul	667	CY	**$13.65**	$9,103	*$0.21*	Assumed haul distance is:
Trench Excavation	30,800	CY	**$5.17**	$159,148	*$3.68*	Assumed excavator used is:
Bed + Zone fill	4,775	CY	**$36.87**	$176,028	*$4.07*	Imported confined material used
Zone Only Fill	3,175	CY		$0	*$0.00*	Imported confined material used
Bed Only Fill	1,600	CY		$0	*$0.00*	Imported confined material used
Backfill Above Zone	25,467	CY	**$16.97**	$432,244	*$10.01*	Native unconfined material from trench used
Waste if Import Bed, Zone	5,333	CY		$0	*$0.00*	Assumed haul distance is:
Waste if Native Bed, Zone	559	CY	**$13.65**	$7,626	*$0.18*	Assumed haul distance is:
Surface Restoration Area	54,000	SF	**$2.78**	$150,142	*$3.48*	AC replacement is assumed to be:
Shoring Area	0	LF	**$4.19**	$0	*$0.00*	Trench Bracing, 3' W X 5' D Alum. Hyd. Shores
(Other as Needed)				$0	*$0.00*	
				$0	*$0.00*	Add in Allowances for Dewatering, etc. that might apply.
Earthwork Subtotal				$959,356	*$22.21*	
Pipe						Insert pipe type
8" DR-18 Pressure Rated 235	43,200	LF	**$16.19**	$699,438	*$16.19*	
8" Isolation Gate Valves	8	EA	**$1,356.03**	$10,848	*$0.25*	
				$0	*$0.00*	Add in Allowances for Fittings, etc., if needed.
				$0	*$0.00*	
8" Fittings (90, 45, 22.5, Tee)	1	LS	**$25,573.00**	$25,573	*$0.59*	
Air/Vac Valve	16	EA	**$2,686.52**	$42,984	*$1.00*	
Pipe Subtotal				$778,844	*$18.03*	
Miscellaneous						Items may include Valve Boxes, Manholes, etc.
				$0	*$0.00*	
				$0	*$0.00*	
Miscellaneous Subtotal				$0	*$0.00*	
TOTAL DIRECT COST:				**$1,738,200**	***$40.24***	
						Include/exclude adders as needed for report (except as noted)
Indirect Costs						
General Conditions			10.0%	$173,820	*$4.02*	Retain this adder here, unless defined separately
Subtotal				**$1,912,020**	***$44.26***	

Disclaimer: The calculated **quantities** represent "reasonable quantities to perform the work" in Bank Measure. They are not intended to provide "absolute" or "exact" volumes. The execution of earthwork is highly variable due to the unknowns of soil conditions and contractors procedures. The calculated quantities are intended to be used as a general guide ONLY for the basis of the scope of work under consideration. The **cost estimate** herein is based on our perception of current conditions at the project location. This estimate reflects our professional opinion of accurate costs at this time and is subject to change as the project design matures. Carollo Engineers have no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. Carollo Engineers cannot and does not warrant or guarantee that proposals, bids or actual construction costs will not vary from the costs presented as shown.

Appendix C

Design Alternative for the Rancho Colina Site
MKN and Associates, December 2014

December 2014

City of Morro Bay - New Water Reclamation Facility

Technical Memorandum – *Design Alternative for Rancho Colina Site*

Prepared for: John F. Rickenbach Consulting

Prepared by: Michael K. Nunley & Associates, Inc.
PO Box 1604
Arroyo Grande, CA 93421
www.mknassociates.us

Project Manager: Michael K. Nunley, PE
Project Engineer: Eileen Shields, PE

MICHAEL K NUNLEY & ASSOCIATES
WATER • WASTEWATER • WATER REUSE

City of Morro Bay
New Water Reclamation Facility

Technical Memorandum: Design Alternative for Rancho Colina Site

December 2014

Prepared by:

Eileen Shields 12/8/2014

Eileen Shields, PE

REGISTERED PROFESSIONAL ENGINEER
EILEEN K. SHIELDS
C 74757
EXP 12/31/15
CIVIL
STATE OF CALIFORNIA

Michael K. N 12/8/14

Michael Nunley, PE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL K. NUNLEY
NO. C 61801
EXP. 6/30/15
CIVIL
STATE OF CALIFORNIA

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SECTION 1 INTRODUCTION

1.1 Purpose of Report

The City of Morro Bay performed a screening of potential sites for the new Water Reclamation Facility (WRF) to replace the existing wastewater treatment plant. One concept is to modify the existing California Men's Colony Wastewater Treatment Plant (CMC WWTP) to also treat wastewater from the City of Morro Bay (City) and Cayucos Sanitary District (CSD). This alternative would consist of partnering with multiple agencies, including the State of California Department of Corrections and Rehabilitation (CDCR), the CSD and potentially the County of San Luis Obispo. The City is performing a separate study to determine the likely costs and feasibility of such an upgrade (Capacity Evaluation of the California Men's Colony Wastewater Treatment Plant Technical Memorandum by Carollo Engineers, Draft December 2014 or "CMC Capacity Evaluation".

Alternatively, the City could pursue a separate site, such as the Rancho Colina site in the Morro Valley. The Rancho Colina site ranked first among seven potential sites reviewed for the new WRF in the New Water Reclamation Facility Project Final Options Report (John F. Rickenbach Consulting, January 10, 2014). Sites were evaluated and ranked based on several issues, including environmental, logistics, engineering and design, and cost. A vicinity map is included as **Figure 1-1**, showing the City's existing WWTP and the Rancho Colina site. The purpose of this technical memorandum is to provide an evaluation of a WRF design alternative at the Rancho Colina site that will be a functional equivalent to an upgraded CMC WWTP in order to help inform the City Council.

The design alternative presented herein is not meant to provide a Master Plan or preliminary design for the City's new WRF, but rather to inform the City Council so that they may evaluate the potential range in costs for the two options. The objective of this memorandum is to present a treatment concept that could possibly be delivered within 5 years. As described in the Draft Work Plan Memorandum (April, 2014), this design alternative would represent "Phase I" of the City's water reclamation program and will produce filtered, disinfected wastewater. Phasing the program may be necessary in order to provide time for identifying recycled water users, developing agreements, designing transmission systems, and constructing the required delivery systems while still allowing the City to complete a "Reclamation-Ready" facility within five years.

The plant design presented herein does not include many of the amenities or features that City residents identified as desired features for the new WRF. Similarly, the CMC Evaluation will present a plant design that will cost-effectively expand the existing CMC facility to meet combined City and CSD flows and loads without adding other project features. Since Rancho Colina is a large, undeveloped site, and the City would own it, there is a greater ability to add project components that are important to the public and to the Council. Examples are a City corporation yard, alternative energy (such as solar panels) or possibly a community park, which are not likely to be possible at CMC since the City will not own that property or own the treatment facility itself, but could be incorporated into a Rancho Colina facility.

In order to provide a complete picture of the potential budgets for the regional CMC site and a Rancho Colina-based recycled water program, MKN is developing a separate cost opinion for Phase II of the City's water reclamation program. Phase II will include a recycled water transmission system with salts removal to meet water quality needs for avocados. The cost opinion for these elements will be presented in the JFR report titled "Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina" in order to allow a comparison of the treated wastewater cost as well as the cost for the estimated water supply benefit associated with each alternative.

1.2 Scope of Work

In order to provide a comparable evaluation that is consistent with the City's goals for the new WRF, MKN performed the following tasks:

- Utilized flows and loadings from previous WWTP design reports, consistent with the CMC Capacity Evaluation.
- Selected unit processes that can meet the following objectives and serve as a functional equivalent to the CMC expansion alternative:
    - Effluent requirements for Title 22 unrestricted reuse and most probable limitations for wet weather ocean disposal using the City's outfall.
    - Solids handling program that is comparable to the CMC WWTP process.
- Developed design criteria with redundancy and reliability requirements similar to those in the CMC Capacity Evaluation.
- Developed a planning level layout for WRF at the Rancho Colina site.
- Provided a conceptual layout for the raw wastewater lift station and force main alignment to transport wastewater from the existing City/CSD WWTP to the new WRF at the Rancho Colina site.
- Developed planning level capital cost opinion of the raw wastewater conveyance system and treatment facilities. Unit costs were based on the CMC Capacity Evaluation when appropriate.

City of Morro Bay

New Water Reclamation Facility Technical Memorandum:

Design Alternative for Rancho Colina Site

Figure 1-1:
Vicinity Map

1 inch:1,000 feet

MAP NOTES:
2011 AERIAL PHOTO PROVIDED BY COUNTY OF SAN LUIS OBISPO.
MAP PUBLISHED OCTOBER 2014.

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SECTION 2 CRITERIA FOR WRF PLANNING LEVEL DESIGN

The objectives for this conceptual WRF alternative at the Rancho Colina site are:

1. Meet anticipated permit requirements for unrestricted urban reuse and wet weather disposal using the existing ocean outfall; and
2. Provide a plant that is functionally equivalent to the potential WWTP upgrade at CMC.

The estimated influent flows and loadings and anticipated requirements for treated effluent quality were reviewed to provide a basis for the conceptual design.

2.1 Influent Flows and Loadings

The influent wastewater flows and loadings were previously evaluated as part of the wastewater master planning process, and presented in the Facility Master Plan Draft Amendment No. 2 (MWH, July 2010). The flows and loadings were established for a combined City and CSD buildout population and based on historical flows and loadings. Flows from 1995 through 2009 were reviewed to establish the basis for design for flow parameters. Loading data for 2002 through 2009 were also gathered and evaluated. The estimated influent flows and loadings were considered for both this evaluation and the CMC Capacity Evaluation and are summarized in **Table 2-1** and **Table 2-2**.

Table 2-1: Projected Influent Flows

Flow Condition	Estimated Influent Flow Rate (MGD)
Average Annual Daily Flow (AADF)	1.5
Average Daily Maximum Month Flow (ADMMF)	2.9
Peak Season Dry Weather Flow, Peak Day (PDDWF)	2.7
Annual Peak Day Flow (PDF)	5.6
Peak Hour Flow (PHF)	8.0

Table 2-2: Projected Influent Loading	
Parameter and Condition	**Estimated Influent Loading (ppd)**
Biological Oxygen Demand (BOD)	
Annual Average Day	3,500
Annual Max 30-day	4,700
Peak Season Dry Weather, Average Day	4,200
Peak Season Dry Weather, Max Month	5,500
Total Suspended Solids (TSS)	
Annual Average Day	3,800
Annual Max 30-day	5,300
Peak Season Dry Weather, Average Day	4,500
Peak Season Dry Weather, Max Month	6,300
Total Kjeldahl Nitrogen (TKN)[1]	
Annual Average Day	600
Annual Max 30-day	800
Peak Season Dry Weather, Average Day	710
Peak Season Dry Weather, Max Month	940
[1] TKN values are derived by assuming TKN/BOD ratio of 0.17.	

2.2 Treated Effluent Quality

The new WRF will provide a level of treatment to meet California Code of Regulations (CCR) Title 22 requirements for unrestricted urban irrigation (disinfected tertiary recycled water) and to meet Waste Discharge Requirements / NPDES requirements for wet weather disposal to the existing ocean outfall. These limits will be established by the Central Coast Regional Water Quality Control Board through a new permit, the Waste Discharge Requirements, for the new WRF. There will likely be separate requirements for effluent limitations for disposal to the outfall and for recycled water.

Although the exact requirements for the effluent quality are unknown, it is assumed that the limits for disposal to the outfall will be similar to full secondary treatment. The existing WWTP is permitted under Waste Discharge Requirements (WDR) Order NO. R3-2008-0065 / NPDES NO. CA0047881. Some of the effluent limits and discharge specifications are summarized in **Table 2-3**. The WDR also includes limits for protection of marine life and human health per the California Toxics Rule (not included in the table below).

Table 2-3: Existing WWTP Effluent Limits	
Parameter and Condition	**Value**
Monthly Dry Weather Flow, MGD	2.36
Biological Oxygen Demand (BOD)	
Average Monthly, mg/L	120
Instantaneous Maximum, mg/L	180
30-day Average Percent Removal, %	30
Total Suspended Solids (TSS)	
Average Monthly, mg/L	70
Instantaneous Maximum, mg/L	105
30-day Average Percent Removal, %	75
Total Coliform Bacteria	
30-day Median, MPN/100 mL	23
Maximum, MPN/100 mL	2400
Grease and Oil	
Average Monthly, mg/L	25
Average Weekly, mg/L	40
Instantaneous Maximum, mg/L	75
Settleable Solids	
Average Monthly, mg/L	1
Average Weekly, mg/L	1.5
Instantaneous Maximum, mg/L	3
Turbidity	
Average Monthly, NTU	75
Average Weekly, NTU	100
Instantaneous Maximum, NTU	225
pH	6.0 – 9.0

The effluent requirements for water reclamation will be based on CCR Title 22 requirements for the most stringent end use. Unrestricted urban irrigation requires disinfected tertiary recycled water. The estimated recycled water effluent limits are summarized in **Table 2-4**.

Table 2-4: Estimated Recycled Water Effluent Limits	
Parameter and Condition	**Value**
Biological Oxygen Demand (BOD)	
Average Monthly, mg/L	30
Instantaneous Maximum, mg/L	90
Total Suspended Solids (TSS)	
Average Monthly, mg/L	30
Instantaneous Maximum, mg/L	90
Total Coliform Bacteria	
7-day Median, MPN/100 mL	2.2
30-day Maximum, MPN/100 mL	23
Maximum, MPN/100 mL	240
Turbidity	
24-hr Average, NTU	2
95th Percentile in 24-hr, NTU	5
Maximum, NTU	10

As directed by City Council, it is assumed the plant will produce disinfected tertiary recycled water even when discharging wet weather flows to the ocean outfall.

2.3 Reliability Features

Reliability features are a requirement of Title 22 to reduce the risk of improperly treated wastewater reaching recycled water users. Reliability features are also included as best management practices in design of a wastewater treatment plant to reduce the risk of a wastewater spill or overflow, allow preventative maintenance to be performed, and provide reliable treatment. The reliability features assumed for the proposed WRF design alternative are summarized in the table below.

Table 2-5: Summary of WRF Reliability Features	
Unit Process	**Reliability Feature**
Pump Stations[1]	Adequate pumping capacity so that if the largest pumps is offline, the peak flow is met
Screens	Two fully redundant screens, each sized to handle the peak hour flow rate
Oxidation Ditch Basins	Two basins, each with sufficient capacity to provide full treatment for short periods of time
Oxidation Ditch Aerators/Mixers	Sufficient power in each basin to provide required aeration/mixing for full flows for short periods of time
Secondary Clarifiers	Two fully redundant clarifiers, each sized to handle the full flow and maximum month loading
Cloth Disk Tertiary Filters	One filter unit with one redundant filter disk. When the recycled water system is constructed, controls will be installed so that effluent is automatically diverted to ocean outfall disposal if filtered effluent does not meet turbidity requirements.

Table 2-5: Summary of WRF Reliability Features	
Unit Process	**Reliability Feature**
UV Disinfection System	Controls will be installed so that effluent is automatically diverted to the ocean outfall if minimum UV transmittance is not achieved for the disinfected effluent.
Solids Dewatering System	Provide on-the-shelf spare parts for common wear and maintenance items, and technician within 24 hours of project site
Backup Power	Provide standby generator on automatic transfer switch, sized to provide power for WRF site in case of an electrical power failure
Alarms and Monitoring	Local and remote status and alarms for equipment, power supply, individual equipment failures, and water levels in basins, treatment monitoring including quality parameters at various treatment stages.
[1]Pump stations include raw wastewater influent lift station and RAS pump station.	

SECTION 3 RAW WASTEWATER CONVEYANCE SYSTEM

Currently, wastewater from the City of Morro Bay and service area of Cayucos Sanitary District flows to the existing Morro Bay – Cayucos WWTP at 160 Atascadero Road in Morro Bay for treatment and disposal. A pump station and pipeline will be required to convey the raw wastewater from the existing service area to the new WRF site. Since the sewer system is currently configured to convey flow to the existing WWTP, it is recommended that the new influent lift station be installed at the existing WWTP. The conceptual layout for the influent lift station and force main alignment used for this analysis is shown in **Figure 3-1**.

3.1 Influent Lift Station

The new influent lift station should be located near the main influent sewer line at the WWTP and the location should consider minimizing impact to the existing WWTP during construction. The existing WWTP will be in operation until the new WRF is constructed and operational. One location that appears to meet this criteria is south of the headworks structure. This area is near the influent sewer and would allow the lift station to be constructed while minimizing disturbance to the operation of the existing facility.

For this report, it is assumed that the influent lift station will consist of three solids-handling, submersible centrifugal pumps, each capable of handling 2800 gpm at 280 feet of total dynamic head (TDH) including 160 feet of elevation difference between the sites and 120 feet of friction and minor losses. The sizing of the lift station pumps is based on providing capacity for peak hour flows (wet weather) with one pump out of service in order to meet redundancy requirements. It is assumed that the pumps will be controlled with variable frequency drives (VFDs) to more closely match incoming flows, minimize wet well retention times, and to maintain continuous flow to the new treatment facility. This conceptual design for the lift station includes a deep concrete structure with space for up to four pumps. Based on the pump sizes indicated above, a structure with inside dimensions of 30 feet by 16 feet and a depth of 26 feet was used in estimating construction costs. **Table 3-1** summarizes the conceptual design for the lift station.

Table 3-1: Influent Lift Station Conceptual Design

Category	Design Value
Pumps	
Number	3
Type	Submersible solids-handling (centrifugal)
Capacity, GPM, each	2800
Total Dynamic Head, FT	280
Speed	Variable (VFDs)
Horsepower, each	300
Wet Well	
Number	1
Width, FT	16
Length, FT	30
Total Depth, FT	26

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Figure 3-1: Raw Wastewater Lift Station and Force Main Conceptual Alignment

1 inch:700 feet

MAP NOTES:
2011 AERIAL PHOTO PROVIDED BY COUNTY OF SAN LUIS OBISPO.
MAP PUBLISHED OCTOBER 2014.

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3.2 Raw Wastewater Force Main

The raw wastewater force main to convey wastewater from the influent lift station at the existing WWTP to the new WRF at the Rancho Colina site will generally follow Atascadero Road and Highway 41. The force main would likely be located within existing City owned streets, new utility easements on private property, and within the Highway 41 right-of-way which will require encroachment permit from California Department of Transportation (CalTrans). Due to the proximity of Morro Creek to Highway 41 on the south, it was assumed that the force main would be placed on the north side of the roadway. However, there are known cultural resources located along the proposed alignment. As planning proceeds, the alignment may be revised or the construction technique may be modified to reduce impact. A conceptual alignment is shown on **Figure 3-1** for the purposes of estimating construction costs and comparing them with the Regional CMC Facility alternative. As with all the elements of a proposed Rancho Colina facility, the final force main alignment will be developed during preliminary project planning and design with consideration of environmental constraints such as cultural resources. Based on the cost estimates summarized in Section 6, the likely impacts of realigning the force main or selecting different construction techniques to mitigate impacts to cultural resources would not significantly reduce the cost difference between the Rancho Colina and Regional CMC Facility alternatives.

The conceptual alignment begins at the influent lift station on the existing WWTP site and travels to the east along the north side of Atascadero Road. Atascadero Road crosses underneath Highway 1 before meeting Highway 41. Based on preliminary discussions with CalTrans, a casing will be required when crossing the Highway 1 right-of-way. To ease construction and reduce traffic control requirements, it is assumed the force main would be installed using jack-and-bore construction methods within the Highway 1 right-of-way, approximately 500 feet long in order to cross Highway 1 right-of-way and avoid potential conflicts with City frontage streets and other facilities.

From the east side of Highway 1, the force main could be installed within City streets to the intersection of Atascadero and Hill Street. From there the force main would be installed within CalTrans Highway 41 right-of-way to the Righetti Property. It is assumed for ease of construction that a utility easement would be obtained to install the force main on the Righetti property along the southern property line. This easement would continue onto the adjacent Macelvaine property to the new WRF location. In total, approximately 5,000 linear feet of easement on private property would be required for this conceptual alignment.

It has been assumed that the force main would be 18 inches in diameter. This would provide sufficient pipe velocities to prevent settling of solids with one pump operating at its full capacity while minimizing head losses due to friction. It was assumed the force main will be constructed of cement mortar lined and coated (CML&C) ductile iron pipe.

Table 3-2: Raw Wastewater Force Main Conceptual Design

Category	Design Value
Diameter, inch	18
Material	Ductile Iron (CML&C)
Length, linear FT	10,000
Hwy 1 crossing length, jack and bore, linear FT	500

SECTION 4 WATER RECLAMATION FACILITY

The unit processes selected for the purposes of this technical memorandum are described in the sections below. A brief description of the purpose and type of equipment is provided, along with the design criteria used as a basis for equipment selection and sizing and a conceptual design for each process. This conceptual design was developed to provide a footprint for the layout of the new WRF at the Rancho Colina site and to develop a planning level cost opinion for comparison to the Regional CMC alternative being developed in the CMC Capacity Evaluation (ibid).

The conceptual WRF site plan for the Rancho Colina site is included as **Figure 4-1** and a process flow diagram showing the unit treatment processes is provided as **Figure 4-2**. **Section 5** contains a discussion of the conceptual site plan developed for this analysis. The cost opinions are summarized in **Section 6**.

4.1 Preliminary Treatment

Preliminary treatment is typically the first step at a wastewater treatment plant. Preliminary treatment unit processes are used to remove or reduce the size of coarse solids, and consist of screens and comminuters or grinders. Screens collect and remove coarse solids from the flow stream, while comminuters or grinders intercept coarse solids and grind or shred them in the channel, returning the smaller solids in the flow stream to be removed by downstream treatment processes. Shredded solids often create problems in downstream processes as they can create ropelike strands and cause binding in mechanical equipment or plug pipelines.

Screens

Screens provide a physical barrier between the influent sewer and the wastewater treatment plant site piping and equipment that could be damaged or plugged by large solids. The level of treatment is based primarily on the opening size, or space through which the wastewater flows, while retaining solids greater than the opening size. Typically, screens associated with wastewater treatment plants using secondary treatment processes have 0.25-inch (6-millimeter) openings. This size provides sufficient capture to protect downstream equipment.

Solids larger than the opening size are captured on the screen surface and periodically removed by a mechanical device that differs depending on the type of screen. The collected screenings are moved to a conveyance system (typically a screw conveyor or sluice trough), then to a screenings washing and dewatering equipment to wash organics back in to the process flow stream and to reduce screenings volume and hauling and disposal effort.

The main design criteria for the screens is to provide one fully redundant unit, so that if one unit is offline, the remaining screens have capacity to treat the peak hour flow rate for the plant.

The table below summarizes the screening system design assumed for the purposes of this technical memorandum. The assumed design is based on the recently installed screening system at the City's existing WWTP.

Table 4-1: Screening System Conceptual Design

Category	Design Value
Screens	
Number	2
Type	Chain & Rake, front-clean/front-return
Capacity, MGD, each	8
Channel width, FT	3

Table 4-1: Screening System Conceptual Design	
Category	**Design Value**
Channel depth, FT	5.5
Screenings washer-compactor	
Number	1
Type	Spiral
Capacity CF/hr	33 (batch mode), 99 (continuous)

Grit Removal

Grit in municipal wastewater consists of sand, gravel, coffee grounds, and other heavy solid, inorganic materials which have specific gravities or settling velocities greater than organic materials in the wastewater. Grit removal is performed to protect downstream mechanical equipment from abrasion, reduce potential for deposits in pipelines and channels, and reduce frequency of sludge digester cleaning caused by grit accumulation. Grit removal is most commonly placed after screening and prior to primary sedimentation and secondary treatment. In this case, grit removal is not required for the secondary equipment (oxidation ditches) and it is assumed that grit in the influent wastewater will settle with the solids in the secondary clarifier and eventually be wasted to the solids dewatering equipment. Many extended aeration plants do not include grit removal, as the amount of grit is variable from system to system. Sufficient space between the screens and the oxidation ditches to allow the addition of grit removal in the future is recommended in the case that the amount of grit is determined to be significant.

4.2 Primary and Secondary Treatment

The objective of primary treatment is to remove settleable solids and floating materials to reduce the suspended solids concentrations and organic loading in the wastewater. Most plants that employ primary treatment use mechanically-cleaned rectangular or circular tanks with standardized designs based on the flows and loadings and site conditions. However, not all secondary processes require primary treatment.

The role of secondary treatment in wastewater is to remove or reduce biodegradable organic material and suspended solids using biological processes. Microorganisms, primarily bacteria, are used to oxidize organic matter into simple end products (carbon dioxide and water) and cellular mass (biomass). Oxygen and nutrients are needed for this conversion. The required nutrients (ammonia and phosphate) are typically found in domestic wastewater influent. The biomass is then removed from the treated liquid by gravity settling. If the treatment process does not include primary treatment, the settleable solids in the influent wastewater is removed with the biomass in the secondary settling tanks (also called secondary clarifiers).

To provide a functionally equivalent project to the potential CMC Upgrade, oxidation ditches were selected for the secondary treatment process.

Oxidation Ditches

The oxidation ditch is an extended aeration activated sludge (EAAS) process that has been used for wastewater treatment since the 1950s. It consists of a concrete, oval-shaped channel equipped with aerators/mixing devices. Screened influent wastewater is mixed with activated sludge as it enters the channel. The aeration/mixing equipment is designed to provide sufficient mixing to keep the mixed liquor in suspension as the influent wastewater flows through the channel.

The design criteria assumed for this alternative for the oxidation ditches are to provide the following:

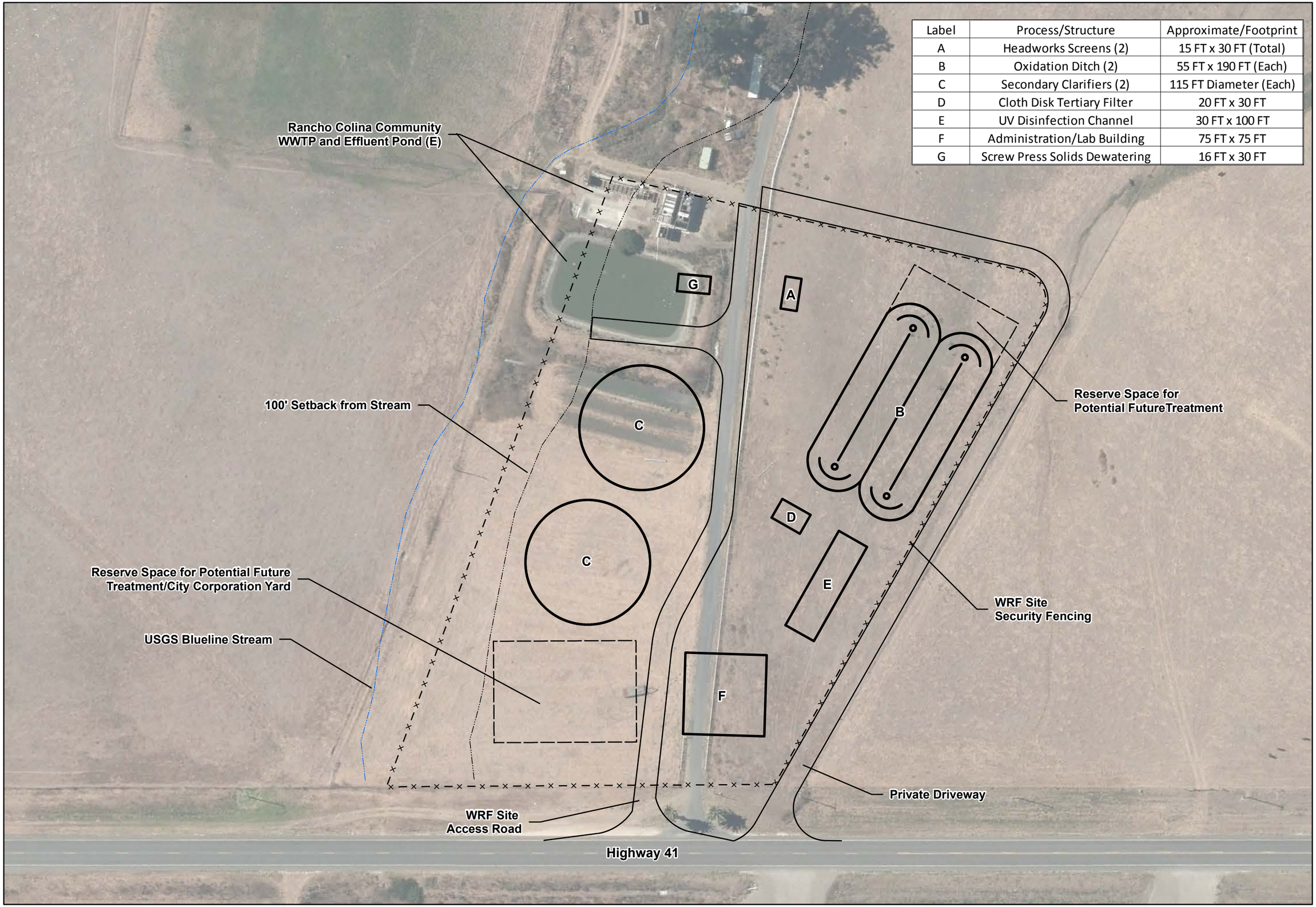
- Adequate volume and aeration/mixing to treat maximum month flows and loadings and meet anticipated effluent limits (**Section 2**).
- At least two equally sized basins should be provided to allow adequate treatment if one basin is taken offline for short-term maintenance.
- Adequate volume to hydraulically pass peak hour flows.

Oxidation ditches can be designed to include nitrogen removal if the treated effluent goals require it. In this case, the anticipated effluent criteria does not include a nitrogen limit and therefore the oxidation ditch design assumed for the Rancho Colina site will only include treatment for BOD and ammonia reduction, which reduces the overall required basin volume and footprint.

Table 4-2 summarizes the oxidation ditch system design assumed for the purposes of this technical memorandum.

Table 4-2: Oxidation Ditch System Conceptual Design

Category	Design Value
Oxidation Ditch Basins	
Number	2
Manufacturer and model	Ovivo Carrousel®
Volume, each, MG	0.852
Maximum Month BOD Loading, ppd	5,500
Maximum Month Flow, MGD	2.9
Aerators	
Number, each basin	2
Type	Surface aerator
Horsepower, each	60



Label	Process/Structure	Approximate/Footprint
A	Headworks Screens (2)	15 FT x 30 FT (Total)
B	Oxidation Ditch (2)	55 FT x 190 FT (Each)
C	Secondary Clarifiers (2)	115 FT Diameter (Each)
D	Cloth Disk Tertiary Filter	20 FT x 30 FT
E	UV Disinfection Channel	30 FT x 100 FT
F	Administration/Lab Building	75 FT x 75 FT
G	Screw Press Solids Dewatering	16 FT x 30 FT

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Figure 4-1: Water Reclamation Facility Conceptual Layout

1 inch:80 feet

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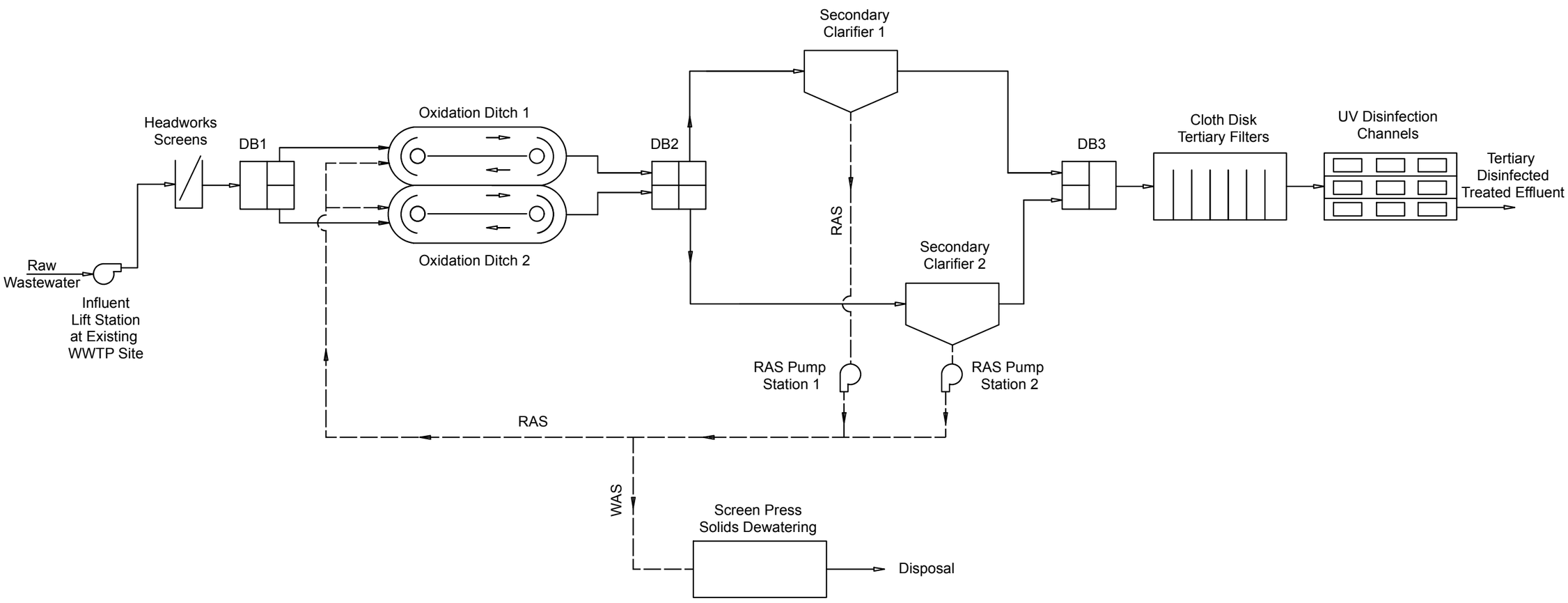
Figure 4-2: Process Flow Diagram



Legend:

DB Distribution Box
RAS Return Activated Sludge
WAS Waste Activated Sludge
——— Liquid Flow Stream
- - - - Solids Flow Stream

Secondary Clarifiers

Secondary clarifiers are located downstream of the biological treatment (oxidation ditches), similar to the layout at CMC, and provide gravity settling to remove suspended solids.

The design criteria assumed for this alternative for the secondary clarifiers are identified below[1].

- Adequate volume to treat design flows and loadings and meet anticipated effluent limits (**Section 2**).
- At least two equally sized clarifiers should be provided to allow adequate treatment if one clarifier is taken offline.
- Solids loading rate between 0.2 and 1.0 ppd/SF-hr during maximum month flow (ADMMF)
- Solids loading rate equal to or less than 1.4 ppd/SF-hr during peak day flow (PDF)
- Overflow rate between 200 and 400 gal/SF-day during maximum month flow (ADMMF)
- Overflow rate between 600 and 800 gal/SF-day during peak hour flow (PHF)

Table 4-3 summarizes the secondary clarifier design assumed for the purposes of this technical memorandum.

Table 4-3: Secondary Clarifiers Conceptual Design

Category	Design Value
Number	2
Type	Circular, center-feed
Manufacturer and model	Ovivo spiral scraper
Diameter, feet	115
Side Water Depth, feet	15
Overflow rate at ADMMF[1], gal/SF-day	279
Overflow rate at PHF[1], gal/SF- day	770
Solids loading rate at ADMMF[1], ppd/SF-hr	0.7
Solids loading rate at PDF[1], ppd/SF-hr	1.4
[1]Calculated rate assuming one clarifier online	

Return Activated Sludge Pump Stations

Extended aeration processes use settled solids from the clarifier to increase concentrations of the beneficial organisms in the biological basins. The solids that are returned to the basins are termed "return activated sludge" (RAS). The rate of return is typically based on the influent flow rate, and is adjusted to maintain desired operational concentrations in the basin. For this conceptual design, two RAS pump stations were assumed, one for each clarifier, each designed to pump RAS to the oxidation ditches. Each RAS pump station will consist of a concrete wet well and contain three submersible solids-handling centrifugal pumps, sized so that any two pumps can handle the peak return flow, assumed to be approximately twice the PDF at most. Variable frequency drives (VFDs) will be used to allow for flow adjustment. The conceptual design for the RAS pump stations is summarized in the table below.

[1] Design criteria for solids loading rates and overflow rates are based on recommendations from Wastewater Engineering: Treatment and Reuse, 4th Edition, by George Tchobanoglous, Franklin L. Burton, H. David Stensel (New York: McGraw-Hill, 2003).

Table 4-4: RAS Pump Station Conceptual Design	
Category	**Design Value**
Number	2
Pumps	
Number, each pump station	3
Type	Submersible solids-handling (centrifugal)
Capacity, GPM, each	3890
Total Dynamic Head, FT	40
Speed	Variable (VFDs)
Horsepower, each	125
Wet Well	
Number	2
Width, FT	12
Length, FT	12
Total Depth, FT	22

4.3 Tertiary Treatment

Tertiary treatment processes are installed downstream of secondary treatment processes to produce higher quality effluent, which is typically driven by stringent discharge or reuse requirements. Filtration is often required after secondary treatment processes to reduce suspended solids (including particulate BOD) concentrations for most recycled water uses. Disinfection is required for some recycled water uses. Unrestricted urban reuse, the use category assumed for this conceptual design, requires both filtration and disinfection to meet CCR Title 22 requirements.

Filtration

Tertiary filtration is typically performed using sand or disk filters. Sand filters are a type of depth filter with various design types, including upflow or downflow operation, continuous or intermittent backwash, and different bed depths, flow controls, and configurations. Depth filtration involves the removal of suspended particulates from the wastewater by passing it through a filter bed made up of granular or compressible filter media (in this case sand).

Disk filters are a type of surface filter that use pile or woven cloth to remove suspended particulate materials from wastewater by mechanical sieving, physically passing the liquid through the filter material while retaining the particles. A series of parallel disks are mounted vertically in a tank. Operations vary by manufacturer design. Wastewater is either introduced in a central feed tube or to the tank and is filtered by either flowing outward through the filters, or inward through the filters. A portion of the disks are submerged. As solids accumulate on and in the cloth media, headloss increases and resists flow. The filters are cleaned with spraybars or a vacuum system when headloss reaches limits set by the operators.

Disk filters provide competitive treatment to sand filters, typically at a lower installation cost and within a smaller footprint. Therefore, disk filters would be pursued at Rancho Colina whereas the Regional CMC Site will use the existing sand filters and possibly expand them.

The design criteria assumed for this alternative for the tertiary filters is to provide the following:

- Adequate filtration capacity to treat peak day flow assuming secondary effluent and meet anticipated effluent limits (**Section 2**).
- Provide one redundant filter disk and allow for isolation and replacement of filter disks while maintaining operations.

The conceptual design is summarized in the table below.

Table 4-5: Tertiary Filters Conceptual Design

Category	Design Value
Number	1
Type	Cloth Disk
Capacity, MGD	5.6
Number of disks, total	8
Total filter area, SF	672 SF
Average filter area flow rate (ADF), GPM/SF	1.54
Peak filter area flow rate (PDF) , GPM/SF	5.76
Filter Tank	Concrete
Tank width, FT	8
Tank length, FT	22.5
Tank depth, FT	11.75

Disinfection

Disinfection involves the partial destruction of disease-causing organisms, which in wastewater consists of bacteria, protozoa, helminths, and viruses (Tchobanoglous, Burton and Stensel). Disinfection of municipal wastewater is typically accomplished through chemical agents (chlorine, sodium hypochlorite, ozone, chloramine, etc.) or physical means (ultraviolet or UV radiation). Unless dechlorination is performed to remove chlorine residual from the treated effluent, disinfection is the last step in the treatment process before discharge.

Similarly to the Regional CMC Site, UV disinfection would be used to meet the requirements for disinfected tertiary effluent. UV light inactivates pathogens by damaging the cellular structure and nucleic acids of microorganisms. There are two types of reactors available: in-vessel and open channel. The design criteria used for the CMC Capacity Evaluation (ibid) was assumed for this alternative for the disinfection system. The conceptual design assumes an open channel design and includes three channels capable of handling 8.0 MGD.

4.4 Solids Handling

Dewatering is a method of solids concentration and volume reduction. Generally, dewatering concentrates sludge to higher than 15% solids concentration. The benefits of dewatering stabilized sludge prior to disposal or recycling includes volume reduction, which reduces hauling, handling, and disposal costs. Dewatering also better prepares biosolids for composting or incineration, further reduces odors, and allows sludge to be handled

more easily (as a solid). Dewatering processes can include passive processes such as sludge drying beds and mechanically assisted processes such as presses or centrifuges. A mechanically assisted process is recommended for this alternative.

Solids Dewatering System

A screw press solids dewatering system was selected for this conceptual design due to the plant size, low power requirement, low operational demands, and dewatering performance. The screw press is a continuous feed operation utilizing a gravity drainage at the inlet end of a helical feed screw that reduces the volume of the material being dewatered as it is conveyed from the inlet to the discharge end of the screw press. There are two primary configuration of screw presses: horizontal and inclined. Some screw presses also utilize the addition of lime and heat to both dewater solids, and to reduce pathogens to produce biosolids that meet Class A standards set forth in 40 CFR 503.

A flocculation vessel (or "floc tank") is typically located upstream of the press. Polymer is combined with solids in the floc tank to enhance dewaterability of the sludge. A portion of the water is removed from the solids by gravity drainage at the inlet to the press. The screw then squeezes free water (filtrate) out of the solids by the screw which progressively reduces the volume available for the solids to occupy. The water is released through screens or perforations that surround the body of the screw. Solids exit at the screw's discharge outlet as dewatered cake.

The design criteria assumed for this design alternative for the solids dewatering system is to provide the following:

- Adequate capacity to dewater approximately 460 dry tons per year of municipal waste activated sludge to a minimum of 15% total solids

A skid-mounted unit was assumed for the project, complete with screw press, sludge feed pump, polymer feed system and floc tank, control panel and all internal piping and wiring.

The conceptual design for the solids dewatering system is summarized in the table below.

Table 4-7: Solids Dewatering System Conceptual Design

Category	Design Value
Waste Activated Sludge (WAS) Pump	
Number	1
Type	Progressive cavity
Capacity, GPM	120
Screw Press	
Number	1
Type	Horizontal, skid mounted with WAS pump, polymer system and controls
Material	Waste activated municipal sludge
Duty cycle	12 hours/day, 5 days/week
Capacity	2.8 dry standard tons/24 hours
Inlet concentration	0.7 % Total solids
Outlet concentration	15 – 18 % Total solids

4.5 Treated Effluent Conveyance

For the purposes of this report, it is assumed that the treated effluent will be initially released through the existing ocean outfall during plant startup and commissioning, then possibly for wet weather disposal in the future. The WRF will be "recycled water ready" and produce disinfected tertiary recycled water. Costs for a recycled water pump station and pipeline will be included in Phase II of the reclamation program since it is dependent on the needs of its customers. The pipeline to the existing ocean outfall will still be utilized after the recycled water project is implemented to discharge treated effluent during periods of wet weather when irrigation is not feasible. It might also be used to discharge brine from the potential future salts removal process.

The treated effluent will need to be conveyed to the existing ocean outfall. An eighteen-inch diameter, ductile iron pipe with cement mortar lining and coating (CML&C) is assumed. The alignment would follow the main alignment assumed for the raw wastewater force main (**Figure 3-1**), except it would leave the new WRF site near the chlorine contact basins and run to connect to the existing effluent line near the ocean outfall structure at the existing WWTP site.

Table 4-8: Treated Effluent Pipeline Conceptual Design

Category	Design Value
Diameter, inch	18
Material	Ductile Iron (CML&C)
Length, Linear FT	10,000
Hwy 1 crossing length, jack and bore, Linear FT	500

SECTION 5 CONCEPTUAL WRF SITE LAYOUT

The 187-acre Rancho Colina Site (APN 073-085-027) is located about a mile east of the Morro Bay city limits, just north of and adjacent to Highway 41. The property also extends across the highway to the south, and is adjacent to Morro Creek. Much of the Rancho Colina site contains relatively steep slopes (>10%) and at elevations greater than 250 feet. The southeastern portion of the site contains a mild slope (2-10%) with development potential, which is being considered for the new WRF site. A single-family residence occupied by the property owner, barns and outhouses lies near the southeastern portion of the site. The area also contains a small packaged wastewater treatment plant which provides treatment service to the nearby Rancho Colina residential community on the southwesterly portion of the site. The packaged WWTP would be abandoned and the new WRF would treat sewage flows from the community as part of this project.

Figures 4-1 shows the approximate footprints for the unit processes described in **Section 4**. This site provides a relatively large amount of space which allows for construction of the new facilities without interruption to the existing packaged WWTP. The existing packaged WWTP and associated pond will remain in operation until the new WRF is constructed and commissioned, at which point the WWTP and pond will be disconnected, services will be directed to the WRF headworks and the packaged WWTP equipment will be removed and the pond filled.

A valley runs along the west side of the WRF site, with what appears to be a seasonal stream (shown in blue on **Figures 4-1**). Specific setback requirements for this stream are not known at this time. A conservative 100-foot stream setback was assumed for structures.

Space was reserved on the upstream side of the oxidation ditches for the addition of an anoxic zone to allow for nitrogen removal in the future if desired. An estimated 30 feet of additional length would be required. Additionally, space was reserved along the southern side of the site for additional treatment processes and equipment that may be required for recycled water usage, including a microfiltration/reverse osmosis unit to reduce salts for salt-sensitive users and recycled water pump station.

This site provides a unique opportunity for the recycled water project due to the proximity to both the potential recycled water users identified in the Morro Valley (agricultural properties, mostly avocado growers) and the existing WWTP and ocean outfall which provide essential infrastructure for the project. A raw wastewater lift station will need to be built at the existing WWTP to transport sewage to the new WRF site, and the ocean outfall can be used for wet weather disposal when recycled water is not used and for brine disposal to discharge brine produced from salts removal[2]. Compared to the CMC site, Rancho Colina is approximately six miles closer to the existing WWTP and ocean outfall.

Visibility from Highway 41 will be a consideration for construction. Feasible mitigation measures include grading berms along the roadway with landscape to provide visual screening, constructing facilities at lower elevations so they are partially buried, and adding architectural features to WWTP buildings to minimize visual impacts.

In addition, site access may require a left-hand turn lane for traffic coming east from Morro Bay. Given the number of vehicles that will be entering the facility each day, this may not be a concern but should be addressed during preliminary planning and design. As described in the next section, the purpose of this memorandum is to compare the costs associated with developing a WRF at Rancho Colina to the costs for upgrading the Regional CMC Facility. A detailed assessment of traffic impacts is beyond the scope of this project and the addition of a turn lane would not significantly reduce the cost difference between the two alternatives as described in the following section.

[2] It is anticipated that salts removal (microfiltration and reverse osmosis system) will be required for an upgrade to the CMC WWTP to meet the existing permitted salts limits for the receiving water (Chorro Creek) with the addition of wastewater from Morro Bay and Cayucos which contains higher salts concentrations than the influent sewage currently treated at the CMC WWTP. Salts removal may also be required for a recycled water project at the Rancho Colina site to produce a recycled water with chloride concentrations acceptable for irrigation at the nearby avocado orchards.

SECTION 6 PRELIMINARY OPINION OF COSTS

6.1 Planning Level Construction Cost Opinion

The planning level construction cost opinion is provided for budgeting purposes only and represents a planning-level effort, based on current bid climate and installed costs for similar projects. The unit costs initially developed in this study were compared to the CMC Capacity Evaluation to confirm that the unit costs herein would result in total unit process costs that were within 10% of those developed by Carollo. Additional project details identified during planning, preliminary engineering, and design may increase or decrease the opinion of probable construction cost. Costs for property acquisition and easements on the Righetti and Macelvaine properties (line item D1) have not been determined at this time and will need to be addressed. The percentages assumed for general conditions, electrical/instrumentation, contingency, contractor overhead and profit, annual cost escalation, and sales tax are the same as those in the Carollo report.

Table 6-1: Planning Level Construction Cost Opinion – Phase I Reclamation-Ready Facility

No.	Description		Total
A.	**Treatment Facility**		
A1	General Conditions		$ 2,370,000
A2	Site Work		$ 2,370,000
A3	Yard Piping/Misc. Structures		$ 2,840,000
A4	Screening		$ 758,000
A5	Not Used		$ -
A6	Oxidation Ditches		$ 3,065,000
A7	RAS/WAS Pump Stations		$ 564,000
A8	Secondary Clarifiers		$ 3,693,000
A9	Tertiary Filters		$ 790,000
A10	UV Disinfection System		$ 3,072,000
A11	Biosolids Dewatering		$ 603,000
A12	Not Used		$ -
A13	Electrical/Instrumentation		$ 3,550,000
Total Treatment Facility Direct Costs			***$ 23,675,000***
B.	**RWW Pump Station**		
B1	General Conditions		$ 177,000
B2	RWW Pump Station		$ 1,327,000
B3	Electrical/Instrumentation		$ 265,000
Total RWW Pump Station Direct Costs			***$ 1,769,000***
C.	**Offsite Pipelines**		
C1	General Conditions		$ 531,000
C2	RWW Conveyance Force Main		$ 2,387,000
C3	Treated Effluent Pipeline		$ 2,395,000
Total Offsite Pipelines Direct Costs			***$ 5,313,000***
TOTAL PROJECT DIRECT COST			**$ 30,757,000**
D.	**Indirect Project Costs**		
D1	Property Acquisition		TBD
D2	Contingency	30%	$ 9,227,000
	Subtotal		$ 39,984,000

Table 6-1: Planning Level Construction Cost Opinion – Phase I Reclamation-Ready Facility			
No.	Description		Total
D3	General Contractor Overhead, Profit & Risk	18%	$ 7,197,000
	Subtotal		$ 47,181,000
D4	Escalation to Mid-Point		$ 5,922,000
	Subtotal		$ 53,103,000
D5	Sales Tax		$ 1,859,000
	Subtotal		$ 54,962,000
TOTAL ESTIMATED CONSTRUCTION COST			**$ 54,970,000**
D6	Engineering, Legal & Administration Fees	35%	$ 19,240,000
TOTAL ESTIMATED PROJECT COST (ROUNDED)			**$ 74,210,000**

6.2 Capital Cost Comparison to Regional CMC Alternative

In order to compare the impact of site selection on the City and CSD's capital project costs, MKN developed two cost opinions:

- Rancho Colina Option A – Project alternative described in **Table 6-1**
- Rancho Colina Option B – Project alternative described in **Table 6-1** with the following modifications to more closely resemble the unit processes included in the Carollo report for the Regional CMC Alternative:
  - Aerated grit removal was added
  - Oxidation ditches were expanded to include denitrification
  - Biosolids dewatering operation was limited to 35 hrs per week resulting in the need for two screw press units

The same percentages were applied to direct costs to calculate general conditions, site work, yard piping/miscellaneous structures, and electrical/instrumentation for Option B and Option A.

The following table compares the three capital cost alternatives. The Regional CMC Alternative was based on the CMC Capacity Evaluation (Carollo, Draft December 2014).

Table 6-2: Comparison of Planning Level Construction Cost Opinions for new WRF at Rancho Colina Site and Regional CMC Expansion				
		Rancho Colina Option A	Rancho Colina Option B	Regional CMC Expansion
No.	**Description**	**Total**	**Total**	**Total**
A.	**Treatment Facility**			
A1	General Conditions	$ 2,370,000	$ 2,670,000	$ 5,088,000
A2	Site Work	$ 2,370,000	$ 2,670,000	$ 1,272,000
A3	Yard Piping/Misc. Structures	$ 2,840,000	$ 3,200,000	$ 3,816,000
A4	Screening	$ 758,000	$ 758,000	$ 2,650,000
A5	Aerated Grit Removal	$ -	$ 641,000	$ 641,000
A6	Oxidation Ditches	$ 3,065,000	$ 3,555,000	$ 3,555,000
A7	RAS/WAS Pump Stations	$ 564,000	$ 564,000	$ 424,000
A8	Secondary Clarifiers	$ 3,693,000	$ 3,693,000	$ 2,116,000
A9	Tertiary Filters	$ 790,000	$ 790,000	$ 2,797,000

Table 6-2: Comparison of Planning Level Construction Cost Opinions for new WRF at Rancho Colina Site and Regional CMC Expansion

			Rancho Colina Option A	Rancho Colina Option B	Regional CMC Expansion
No.	**Description**		**Total**	**Total**	**Total**
A10	UV Disinfection System		$ 3,072,000	$ 3,072,000	$ 3,072,000
A11	Biosolids Dewatering		$ 603,000	$ 1,060,000	$ 2,799,000
A12	Microfiltration and Reverse Osmosis		$ -	$ -	$ 15,020,000
A13	Electrical/Instrumentation		$ 3,550,000	$ 4,000,000	$ 7,633,000
Total Treatment Facility Direct Costs (Rounded)			***$ 23,675,000***	***$ 26,673,000***	***$ 50,883,000***
B.	**Raw Wastewater (RWW) Pump Station**				
B1	General Conditions		$ 177,000	$ 177,000	$ 204,000
B2	RWW Pump Station		$ 1,327,000	$ 1,327,000	$ 1,527,000
B3	Electrical/Instrumentation		$ 265,000	$ 265,000	$ 305,000
Total RWW Pump Station Direct Costs			***$ 1,769,000***	***$ 1,769,000***	***$ 2,036,000***
C.	**Offsite Pipelines**				
C1	General Conditions		$ 531,000	$ 531,000	$ 925,000
C2	RWW Conveyance Forcemain		$ 2,387,000	$ 2,387,000	$ 7,512,000
C3	Treated Effluent Pipeline		$ 2,395,000	$ 2,395,000	$ -
C4	Brine Discharge to Ocean Outfall		$ -	$ -	$ 1,738,000
Total Offsite Pipelines Costs			***$ 5,313,000***	***$ 5,313,000***	***$ 10,175,000***
TOTAL PROJECT DIRECT COST			**$ 30,757,000**	**$ 33,755,000**	**$ 63,094,000**
D.	**Indirect Project Costs**				
D1	Property Acquisition		TBD	TBD	
D2	Contingency	30%	$ 9,227,000	$ 10,127,000	$ 18,929,000
	Subtotal		$ 39,984,000	$ 43,882,000	$ 82,023,000
D3	General Contractor Overhead, Profit & Risk	18%	$ 7,197,000	$ 7,899,000	$ 14,764,000
	Subtotal		$ 47,181,000	$ 51,781,000	$ 96,787,000
D4	Escalation to Mid-Point		$ 5,922,000	$ 6,499,000	$ 18,786,000
	Subtotal		$ 53,103,000	$ 58,280,000	$ 115,573,000
D5	Sales Tax		$ 1,859,000	$ 2,040,000	$ 4,045,000
	Subtotal		$ 54,962,000	$ 60,320,000	$ 119,618,000
TOTAL ESTIMATED CONSTRUCTION COST			**$ 54,970,000**	**$ 60,320,000**	**$ 119,618,000**
D6	Engineering, Legal & Administration Fees	35%	$ 19,240,000	$ 21,112,000	$ 41,866,000
TOTAL ESTIMATED PROJECT COST (ROUNDED)			**$ 74,210,000**	**$ 81,432,000**	**$ 161,484,000**

Appendix D

Water Supply Cost Analysis
MKN and Associates, December 2014

MICHAEL K NUNLEY & ASSOCIATES
WATER • WASTEWATER • WATER REUSE

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DRAFT TECHNICAL MEMORANDUM

To: John Rickenbach

From: Michael K. Nunley, PE
Eileen Shields, PE

Date: 12/8/2014

Re: **Estimated Cost of Recovered Water – Rancho Colina WRF and CMC Regional Facility**

The New Water Reclamation Facility Project Comparative Site Analysis: Regional CMC Facility vs. Rancho Colina (Comparative Site Analysis, John F. Rickenbach Consulting, Inc.) includes a relative cost per acre-foot of delivered water for a regional facility at the California Men's Colony Wastewater Treatment Plant (CMC WWTP) and for a new water reclamation facility (WRF) at the Rancho Colina site. There are two options considered for the Rancho Colina site: one with and one without flow from Cayucos Sanitary District (CSD). This memorandum describes the approach and assumptions for developing the relative cost of the water supply benefit on a dollars per acre-foot per year ($/AFY) basis.

Three main project alternatives were evaluated for this cost comparison: 1) New WRF at the Rancho Colina site in the Morro Valley with participation from the City of Morro Bay (City) and the CSD, 2) New WRF at the Rancho Colina site without flow from CSD, and 3) a regional facility at the CMC WWTP with flow from the City and the CSD.

General Description of Project Alternatives

The new WRF at Rancho Colina will produce tertiary disinfected recycled water, meeting Title 22 requirements for unrestricted irrigation. It is assumed the new WRF will be constructed by November 2018 in order to meet the City Council's five-year goal for construction of a new facility. Conceptual facilities used for this analysis are described in the report entitled **City of Morro Bay – New Water Reclamation Facility Technical Memorandum – Design Alternative for Rancho Colina Site (December 2014, MKN, "Rancho Colina TM"**).

One of the City's goals is to utilize recycled water, but in order to meet the 5-year implementation goal, project development must be phased. The influent lift station, force main, WRF, and a wet weather pipeline to the existing ocean outfall will be constructed in Phase I. During planning and construction of Phase I, the City will identify and negotiate with potential recycled water customers. Based on prior studies, there is a potential for use of recycled water by agricultural customers near the Rancho Colina site. In addition, the City will evaluate opportunities for indirect potable reuse through percolation and/or injection as an alternative to direct delivery to agricultural customers. Previous reports have identified a large group of potential recycled water users as the irrigated agricultural properties in the Morro Valley, mostly avocado and some citrus orchards. Planning work for the recycled water transmission facilities will be performed during the City's Facility Master Plan development and would continue through design of the treatment facility. Either approach (direct delivery to agricultural users or groundwater recharge via percolation or injection) would benefit City water supplies. For this analysis, it is assumed that water would be delivered directly to

agricultural customers and an "in-lieu" benefit to the City's Morro Valley wells would be provided as described in the **Hydraulic Evaluation Of The Potential Benefits To The City Water Supply From Reclaimed Water Use In The Morro Valley, San Luis Obispo County, November 7, 2014 by Cleath-Harris Geologists (CHG)**.

It is assumed that the recycled water delivery system will be constructed after the new WRF is completed and include advanced treatment (including desalination) since avocados are the most prevalent crop and are sensitive to salts, a recycled water pump station, and the main recycled water conveyance pipeline. It is also assumed that the additional water drawn from the City's Morro Valley wells will be treated through the City's existing reverse osmosis plant, which is the current process for the City's Morro Valley groundwater.

The Rancho Colina site with flows from the City alone (and not the CSD) contains the same project assumptions but with a lower average daily flow rate.

The third project alternative, a regional facility at the CMC WWTP assumes flows from the City and the CSD in addition to the design flows and loadings for the existing facilities. The existing CMC WWTP does not have sufficient capacity to accommodate additional flows or loadings and additional treatment facilities would be required. This evaluation is described in the **City of Morro Bay Capacity Evaluation of the California Men's Colony Wastewater Treatment Plant Technical Memorandum (Draft December 2014, Carollo, "CMC Capacity Evaluation")**.

The CMC WWTP discharges to Chorro Creek. The potential water supply benefit from increased discharges to Chorro Creek is described in a technical memorandum by CHG, entitled **Hydraulic Evaluation Of The Potential Benefits To The City Water Supply From Increasing Wastewater Discharge To Chorro Creek, San Luis Obispo County (November 7, 2014)**.

To utilize water from the Chorro Valley wells, a new potable water treatment plant will need to be constructed to reduce nitrate concentrations in the water below the state maximum contaminant levels (MCLs). It is assumed that an ion exchange system will be constructed and the brine from regeneration of the ion exchange resins will be discharge to the brine disposal pipeline from CMC to the WWTP ocean outfall.

Flow Rates

The comparative cost analysis for recovered water considers the potential amount of water available. Total treated effluent flow rate before advanced treatment is assumed to be approximately the same as the estimated influent flow rate and is based on the design values determined during the City's Master planning process as summarized in the **Wastewater Treatment Plant Upgrade Project - Facility Master Plan Amendment #2 (MWH, Draft July 2010)**. Estimated influent flow rate for the Rancho Colina site with only City flows (without the CSD) assumes 75 percent of the combined flow from both the City and the CSD based on the Wastewater Treatment Plant Facility Master Plan Report (Carollo, September 2007).

Phase 1 Wastewater Facility Construction Costs

Major project components were identified to evaluate relative construction costs for both alternatives. This evaluation does not identify the total costs for each alternative, but attempts to establish a comparative framework for analysis of the alternatives under consideration.

The wastewater facility construction costs include wastewater treatment and raw wastewater conveyance costs, as well as a brine pipeline (for CMC alternative) or wet weather disposal pipeline (for the Rancho Colina alternatives). These costs were developed in the Rancho Colina TM for the

Rancho Colina alternative and in the CMC Capacity Evaluation for the CMC alternative. The wastewater facility construction costs for the Rancho Colina site without flow from the CSD were assumed to be 10% less than the other Rancho Colina site alternative. Flows and loadings would be approximately 25% lower without participation from the CSD

Escalation: The wastewater facility construction costs were escalated to the mid-point of construction assuming inflation of three percent per year, compounded annually, and a timeframe of 4 years for the Rancho Colina alternatives and 6 years for the CMC alternative. This assumption was included in the CMC Capacity Evaluation (ibid.)

Recovered Water Facilities Costs for Rancho Colina and CMC

Phase 2 Reclamation Project Construction Costs (Rancho Colina only)

The Phase 2 Reclamation Project construction costs for the Rancho Colina alternatives include a microfiltration/reverse osmosis (MF/RO) treatment system to remove salts from the new WRF treated effluent, a recycled water pump station and pipeline to convey the recycled water to users. The salts removal process will be required for use at avocado orchards (the largest potential recycled water user group identified) and other salt-sensitive crops. The estimated cost for the MF/RO system is based on the mid-point of a cost range provided in the **City of Morro Bay – New Water Reclamation Facility Draft Technical Memorandum - Analysis of Wastewater Treatment Alternatives (MKN, October 2013)**. Costs for the recycled water pump station and pipeline are based on the cost ranges provided in **Appendix D of the New Water Reclamation Facility Project, Final Options Report (John F Rickenbach Consulting, January 10, 2014)**. For the purposes of this analysis, it is assumed that the recycled water users will supply individual storage or transport facilities and the City will only be responsible for conveying the recycled water to turnouts that are funded by the users. The estimated length for the recycled water pipeline is 3.6 miles. The Phase II construction costs for the Rancho Colina site without flow from the CSD were assumed to be 10% less than the site alternative with the CSD.

Escalation: The reclamation project construction costs were escalated to the mid-point of construction assuming inflation of three percent per year, compounded annually, and a timeframe of 8 years.

Nitrate Removal Plant (CMC Only)

Water recovered from the City's Chorro Valley well fields has historically contained high nitrate levels (CHG, October 6, 2014). As part of this analysis, it is assumed a nitrate removal plant will be required to make use of recovered water from the CMC alternative. The concept for the nitrate removal plant consists of an ion exchange system to remove nitrate by exchange with sodium. The process will generate a waste stream that is high in nitrate and would be discharged to the proposed brine disposal pipeline from CMC. The assumptions used to develop the planning-level cost for the nitrate removal plant are summarized in the table below.

Table 1 Planning-level cost assumptions for the nitrate removal plant (CMC option)

	Value	Reference or notes
Influent nitrate concentration, mg/L	75 - 85	Estimate based on review of Ashurst Well Field Nitrate Study (CHG, 2009). Nitrate concentrations varied from 2 to over 120 mg/L.
Effluent nitrate concentration, mg/L	35	Assume target 5 mg/L below limit.

	Value	Reference or notes
Bypass stream, %	7	
Plant capacity, MGD	2.9	Maximum month flow rate
Plant average flow, MGD	1.5	Average daily flow rate
Installation, % of material cost	20	
Engineering, % of material + installation cost	15	
Contingency, % of material + installation + engineering	30	
% Flow Recovery	98.4	

Escalation: The nitrate removal plant costs were escalated to the mid-point of construction assuming inflation of three percent per year, compounded annually, and a timeframe of 8 years.

Total Estimated Cost and Annual Debt Service

The total estimated construction cost present worth is based on the sum of the Treatment Facility costs and either the Phase 2 Reclamation Project Costs (for Rancho Colina alternatives) or the Nitrate Removal Plant Costs (for the CMC alternative). The annual debt service was estimated assuming historical SRF financing terms of 20 years at 2% interest.

Water Supply Benefit

The estimated water supply benefit is based on findings from the two CHG studies cited previously.

Percent Recovery as City Water Supply and Debt Service per AF Recovered Water

The percent recovered as City water supply is estimated for an average year as the water supply benefit divided by the treatment plant influent flow rate. The annual cost of the debt service per AF of recovered water was estimated by dividing the annual debt service cost by the water supply benefit in AF per year.

Power, Chemical and Staffing Costs

The power, chemical and staffing costs are estimated annual costs in million dollars per year. Annual power, chemical and staffing costs are estimated separately for the wastewater treatment facility and for the recovered water facilities for each option. The annual costs for recovered water facilities for the Rancho Colina site options also include power, chemical and staffing costs at the City's existing reverse osmosis system.

These costs are included in Attachment A for both Rancho Colina alternative and the Regional CMC Expansion. Estimated power, chemical and staffing costs for the Rancho Colina alternative without CSD participation was assumed to be proportional to the difference in influent flow rates.

The estimated power and chemical costs for the recycled water pump station are based on the assumptions summarized in Table 2.

Table 2 Planning-level cost assumptions for recycled water pump station (Rancho Colina only)

	Value
Static lift, Ft	200
Friction and minor losses, Ft	15
Average flow rate, gpm	1000

Electricity Cost, $ per Kw-hr	$0.13

The estimated power and chemical costs for the MF/RO system were estimated based on the City's documented water production costs at their Water Treatment Plant, using the reverse osmosis units and supporting facilities that treat brackish groundwater. The City has recorded a total production cost of $897/AFY including staffing, power and chemical costs for delivering potable water from brackish Morro Valley groundwater supplies.

The estimated power, chemical and staffing costs for the nitrate removal plant are summarized in Attachment A.

Total Cost per Acre-foot of Recovered Water

Attachment B summarizes the total cost per AF of recovered water, including the information and assumptions provided in the preceding sections of this Memorandum.

Attachment A

City of Morro Bay/ Cayucos Sanitary District New WRF

Estimated POWER, CHEMICAL & STAFFING COSTS

Power Cost = $ 0.13 per kw-hr

Phase 1 Wastewater Treatment Facility		**Rancho Colina Option A**			**CMC WWTP (whole facility)**			**City/CSD Est. Cost**	**Rancho Colina Option A**	**CMC WWTP Expansion**
Electrical	Unit	Quantity		Annual Cost	Quantity		Annual Cost	Annual Cost	Notes	Notes
Raw Wastewater pump station	kw-hr/day	3,788		$ 179,761	2,852		$ 135,321		3 pumps, any 2 capable of 1/2 PHF (4 MGD) & VFDs to allow flow to be reduced to 70% of design (2.8 MGD) @ 280 FT TDH, and 65% efficiency.	MB/CSD Lift Station only. 5 pumps with any one able to meet 2 MGD at 295 FT. Assume one operates on avg & 65% efficiency.
Screens & washer/compactor	kw-hr/day	125		$ 5,944	161		$ 7,643			Whole Plant. Assume 1 exist. & 1 new screen + exist. fine screen & compactor running on avg.
Influent Pump Station	kw-hr/day	-		$ -	626		$ 29,722			Whole Plant. Assumes 1 exist. & 1 new pump running on average, TDH = 24 FT & 65% efficiency, per Carollo.
Aerated Grit Chamber	kw-hr/day	-		$ -	500		$ 23,738			Whole Plant. Assumes two 15 HP blowers, 24 hrs/day
Oxidation Ditches	kw-hr/day	2,148		$ 101,904	10,022		$ 475,554		(2) 60-HP aerators in each basin w/VFDs, assume 100% redundancy & 60 HP used each basin on average	Whole Plant. 4 basins with 1 anoxic mixer @ 15 HP each & 2 surface aerators on VFDs @ 125 HP each.
Secondary Clarifiers	kw-hr/day	13		$ 637	54		$ 2,548		0.75 HP drive each, 1 clarifier is redudnant	Whole Plant. 5 clarifiers. Assume 1 is redundant & 0.75 HP drive each.
RAS pump station	kw-hr/day	269		$ 12,778	704		$ 33,392		Assume QR = 2 x AAF on average	Whole plant. Assume QR = 2 x AAF on average and 28 FT TDH.
WAS pump	kw-hr/day	5		$ 259	-		$ -		Estimated sludge volume based on 75% yield	WAS electrical included with centrifuges
Screw Press	kw-hr/day	125		$ 5,944	-		$ -		2 HP for screw. Assume up to 5 HP for ancillary equipment	NA
Centrifuges	kw-hr/day	-		$ 5,944	2,454		$ 116,442		NA	Whole Plant. (3) 20 HP feed pumps, (3) 200 HP centrifuges running 35 hrs/wk.
Filters	kw-hr/day	3		$ 130	668		$ 31,709		0.33 HP Drive Unit, (2) 7.5HP Backwash pumps - assume they run 2 hours per day	Whole plant. 1 Filter Feed pump station at 40 HP, running 1/2 time, per Carollo.
MF/RO system	kw-hr/day	-		$ -			$ 145,000		NA	MB/CSD only. Cost per Carollo.
UV Disinfection	kw-hr/day	1,008		$ 47,830	2,016		$ 95,659		Assume 250 W/lamp (GE) & 3 channels, each with 21 modules & 8 lamps/mod (design for PHF). Assume 1 channel for average annual conditions.	Whole Plant. Assume same as for RC, but two channels operate on average.
Site process water	kw-hr/day	37		$ 1,769	37		$ 1,769		Assume 25 HP for process water, 2 hours per day	Assume same as RC.
Miscellaneous	kw-hr/day	537		$ 25,476	537		$ 25,476		Allow 30 HP for miscellaneous	Assume same as RC.
Total power				***$ 388,376***			***$ 1,123,974***	***$ 732,278***		
Chemical	Unit	Quantity	Unit Cost	Annual Cost	Quantity	Unit Cost	Annual Cost	Annual Cost		
Polymer	lbs/yr	85,000	$ 3	$ 255,000	170,000	$ 3	$ 510,000		Assume 50% polymer usage of centrifuges for screw press	Estimate 20,000 gallons/yr (Carollo). Assume 8.5 lbs/gallon
MF/RO system chemicals	$/yr			$ -			$ 198,000			MB/CSD only. Costs per Carollo.
Total chemical				***$ 255,000***			***$ 708,000***	***$ 379,286***		
Staffing	Unit	Quantity	Unit Cost	Annual Cost	Quantity	Unit Cost	Annual Cost	Annual Cost		
Staffing	$/yr			$ 400,000			$ 500,000		Based on County of SLO estimate for Los Osos (Oct 2014)	Assume 5 FTE at fully burdened labor of $100,000/FTE/yr
Total staffing				***$ 400,000***			***$ 500,000***	***$ 268,000***		
Total Estimated Power & Chemical Cost				***$ 643,000***			***$ 1,832,000***	***$ 1,112,000***		
Total Estimated Power, Chemical & Staffing Cost				**$ 1,043,000**			**$ 2,332,000**	**$ 1,380,000**		

Attachment A
City of Morro Bay/ Cayucos Sanitary District New WRF
Estimated POWER, CHEMICAL & STAFFING COSTS
Power Cost = $ 0.13 per kw-hr

Recovered Water Facilities		**Rancho Colina**			**CMC WWTP Expansion**			**City/CSD est. Cost**	Rancho Colina Option A	CMC WWTP Expansion
Electrical	Unit	Quantity	Unit Cost	Annual Cost	Quantity		Annual Cost	Annual Cost	Notes	Notes
MF/RO at WRF	$/yr			$ 77,140					Proportion of Carollo MF/RO eletricity usage estimate for 2.5 MGD. Assume treating sidestream of 1.33 MGD for TDS = 300 mg/L (Dudek)	
Recycled Water Pump Station	kw-hr/day	1496		$ 71,004	--		$ -			
Reverse Osmosis at existing WTP	$/AFY	1160	$ 234	$ 271,440	--		$ -		Based on City's cost for Brackish Water RO	
Nitrate Removal Plant	kw-hr/day	--		$ -	275		$ 13,049			Assume 10 psi head loss through system
Total power				***$ 419,584***			***$ 13,049***	***$13,049***		
Chemical	Unit	Quantity	Unit Cost	Annual Cost	Quantity	Unit Cost	Annual Cost	Annual Cost		
Chlorine for residual	gal/yr	21,900	$ 1	$ 21,900	-	$ 1	$ -		Assume 5 mg/L dosage for residual in recycled water pipeline	
Chemical for MF/RO at WRF	$/yr			$ 198,000					Based on Carollo estimate.	
Chemical for RO at existing WTP	$/AFY	1,160	$ 411	$ 476,760	-		$ -		Based on City's cost for Brackish Water RO; treating sidestream of 1.33 MGD for TDS = 300 mg/L (Dudek)	
Salt for nitrate removal	ton/yr	-		$ -	428	$ 105	$ 44,940			Assume influent nitrate ~84 mg/L, effluent nitrate ~ 35 mg/L, AAF = 1.5 MGD.
Resin for nitrate removal	CF/yr	-		$ -	30	$ 250	$ 7,550			Assume resin replacement every 5 yrs. Total Volume = 151 CF at $250/CF
Total chemical				***$ 696,660***			***$ 52,490***	***$52,490***		
Staffing	Unit	Quantity	Unit Cost	Annual Cost	Quantity	Unit Cost	Annual Cost	Annual Cost		
Staffing	$/yr			$ 100,000			*$ 50,000*		Assume 1 FTE at fully burdened labor of $100,000/yr	Assume 20 hr/wk at fully burdened labor rate of $100,000/FTE/yr
Total staffing				***$ 100,000***			***$ 50,000***	***$ 50,000***		
Total Estimated Power & Chemical Cost				***$ 1,116,000***			***$ 66,000***	***$ 66,000***		
Total Estimated Power, Chemical & Staffing Cost				**$ 1,216,000**			**$ 116,000**	**$ 116,000**		
Total Ph 1 & 2 Estimated Power, Chemical & Staffing Cost				**$ 2,259,000**				**$ 1,496,000**		

Attachment B

City of Morro Bay/ Cayucos Sanitary District New WRF

Recovered Water Cost Opinions

	Rancho Colina (w/o Cayucos)	Rancho Colina	Regional CMC Facility
WASTEWATER TREATMENT FACILITY COSTS			
Treated Effluent Flow Rate			
Average Daily Flow (MGD)	1.13	1.5	1.5
Average Daily Flow (AFY)	1266	1680	1680
Average Day Max Month Flow (MGD)		2.9	2.9
Wastewater Facility Construction Costs ($MM)			
Lift Station	3.4	3.8	4.4
Force Main	5.1	5.7	17.7
Treatment Facility	46	50.8	109.0
Brine/Wet Weather Disposal Pipeline	5.1	5.6	4.1
Escalation (3% per yr, 4 yrs, 6 yrs)	12.6%	12.6%	19.4%
Escalated Facility Cost ($MM)	66.7	74.2	161.4
Total Phase 1 WWTP Construction Cost Present Worth ($MM)	**66.7**	**74.2**	**161.4**
Annual Debt Service- SRF Financing (20 yr at 2%) ($MM)	*4.08*	*4.53*	*9.87*
Power & Chemical Cost Treatment Plant ($MM/yr)	*0.48*	*0.64*	*1.11*
Staffing ($MM/yr)	*0.40*	*0.40*	*0.27*
Total Annual Cost, Treatment Only ($MM/yr)	**4.97**	**5.58**	**11.25**
RECOVERED WATER FACILITY COSTS			
Ph II Reclamation Project Construction Costs ($MM) (Rancho Colina Only)		-	-
Microfiltration / Reverse Osmosis System at WRF	12.24	13.6	-
Recycled Water Pump Station	0.72	0.8	-
Recycled Water Pipeline	7.5	7.5	-
Escalation (3% per yr, 8 years)	27%	27%	-
Escalated Ph II Facility Cost	25.9	27.7	-
Nitrate Removal Plant Construction Cost ($MM) (CMC Only)	-	-	4.6
Escalation (3% per yr, 8 years)			27%
Escalated Nitrate Removal Plant Cost			5.8
Total Phase 2 WWTP Construction Cost Present Worth ($MM)	**25.9**	**27.7**	**5.8**

Attachment B

City of Morro Bay/ Cayucos Sanitary District New WRF

Recovered Water Cost Opinions

	Rancho Colina (w/o Cayucos)	Rancho Colina	Regional CMC Facility
WASTEWATER TREATMENT FACILITY COSTS			
Annual Debt Service- SRF Financing (20 yr at 2%) ($MM)	*1.58*	*1.70*	*0.35*
Power & Chemical Cost Reclamation System ($MM/yr)	*0.84*	*1.12*	*0.07*
Staffing ($MM/yr)	*0.10*	*0.10*	*0.05*
Total Annual Cost, Recovery Only ($MM/yr)	**2.52**	**2.91**	**0.47**
TOTAL CONSTRUCTION COST, PHASE 1 AND 2 ($MM)	**92.6**	**101.9**	**167.2**
TOTAL ANNUAL COST, PHASE 1 AND 2 ($MM/YR)	**7.5**	**8.5**	**11.7**
TOTAL COST PER ACRE-FOOT OF RECOVERED WATER			
Water Supply Benefit (AFY)	895	1160	515
Percent Recovery as City Water Supply (Avg Yr)	71%	69%	31%
TOTAL COST PER AFY RECOVERED WATER ($/AFY)	**$8,400**	**$7,300**	**$22,800**

Appendix E

Regulatory Implications for Discharge
Larry Walker Associates, September 2014

Memorandum

LARRY WALKER ASSOCIATES

DATE: October 1, 2014

TO: Rob Livick, City of Morro Bay

Cc: Betsy Elzufon, LWA
Mike, Nunley, Michael K. Nunley & Associates

SUBJECT: Regulatory Implications of Discharge Options for the Future City of Morro Bay Water Reclamation Facility

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The City of Morro Bay-Cayucos Wastewater Treatment Plant currently operates under National Pollution Discharge Elimination System Permit (NPDES) No. CA0047881, Waste Discharge Requirements (WDR) Order No. R3-2008-0065. The current discharge to the Pacific Ocean occurs by virtue of a 301(h) exception allowing partial secondary treatment. The City of Morro Bay (City) is planning to build a new Water Reclamation Facility (Morro Bay WRF) that is Reclamation Ready and which will ultimately produce tertiary, disinfected wastewater in accordance with Title 22 requirements for unrestricted urban irrigation. This level of treatment is appropriate for a wide range of reuse options that are under consideration by the City. While the intent is for re-use of most of the Morro Bay WRF's effluent, an option for discharging treated effluent to surface water or land during both dry and wet weather will still be necessary.

Many sites for the Morro Bay WRF have been considered in the past, however, the City is currently focusing evaluation on two sites: Rancho Colina and the California Men's Colony (CMC). The purpose of this memorandum is to evaluate the regulatory implications of the discharge options associated with the Rancho Colina and CMC sites.

As discussed in more detail below, the Rancho Colina site would be used to construct an upgraded facility for the current service area, the City of Morro Bay. If the existing CMC facility was upgraded, it would likely be a regional facility that would serve California Men's Colony, other County customers, the Cayucos Sanitary District and the City of Morro Bay.

The types of permits and the governing water quality objectives that would apply to each of the potential waste discharge scenarios is summarized in Section 1 and discussed in more detail in the

remainder of the memorandum. Regulatory implications of the environmental settings and of several future state and federal regulatory actions are described. Recent effluent data from the current Morro Bay-Cayucos WWTP was screened using the suite of water quality objectives that pertains to each of the discharge scenarios. This resulted in identification of several constituents that might be assigned numeric effluent limits in the permit for the new Morro Bay WRF. The more significant regulatory implications of the discharge scenarios are summarized in a matrix. As discussed elsewhere, the regulatory requirements and other program elements associated with the anticipated recycling program are expected to be similar for the different sites with the one difference being proximity to potential recycled water customers.

1. Summary and Conclusions

The most significant regulatory factors identified in this evaluation are contrasted for the discharge options in Table 1. The implications of each regulatory option are summarized below and discussed in more detail in the following sections:

- Section 2. Current Regulatory Implications
- Section 3. Effluent Quality Evaluation
- Section 4. Considerations for the Future

The options evaluated include discharges to groundwater through land disposal (percoloation ponds), discharges to inland surface water (i.e., Chorro Creek or Morro Creek) and discharges to the Ocean. When evaluating the discharge options to inland surface waters, different requirements associated with each creek are also highlighted given that Chorro Creek is tributary to Morro Bay estuary while Morro Creek flows directly to the ocean.

PERCOLATION PONDS

The process for applying for a WDR (i.e., Waste Discharge Requirements) for discharge to percolation ponds is the simplest among the discharge options and avoids involvement of USEPA. In addition, permit cycles for WDRs are indeterminant, requiring fewer rounds of reapplication. Many fewer constituents are likely to be assigned numeric effluent limits for discharge to percolation ponds. Percolation ponds are unlikely to be named a source in future TMDLs, unless contaminated groundwater affects Morro Creek. Bacteria limits and toxicity provisions are not likely in a WDR. However, there is a possibility that numeric effluent limits for total nitrogen and salts may apply to percolation ponds, which might necessitate additional treatment processes.

INLAND SURFACE WATER

Several future regulatory actions are likely to affect permits for discharges to Morro Creek or Chorro Creek that will not apply to discharges to the ocean or percolation ponds. Both the State Policy on Nutrients and the State's Implementation Plan for Biological Integrity are likely to result in lower recommended nutrient levels in streams and enclosed estuaries. In streams, eventual impairment thresholds for nitrogen are likely to be in the vicinity of 1.0 mg/L total nitrogen; limits for P may be about 1/10th the value for total N. The State Toxicity Policy has several implications for discharges to the creeks that may not apply to an ocean discharge and will not apply to percolation ponds. The new numeric toxicity criterion is highly controversial and will replace the current narrative criterion. Toxicity provisions in future permits will be more costly than in current permits and will more easily lead to violations. Acute tests will be required in addition to

chronic tests. Dischargers with no dilution credits will not be able to consider in-stream concentrations to determine compliance.

Among the inland discharges, discharge to Chorro Creek (by expansion of the CMC facility to serve the City) is accompanied by the highest regulatory burden and regulatory risk. Discharge to Chorro Creek will likely result in numeric effluent limits for total nitrogen, orthophosphorus, one or more salts, and bacteria that have implications for treatment. Discharge to Chorro Creek will likely require consideration of governance options since it would involve partnering with other agencies to form a regional facility. Compared to the Morro Valley Basin, Salt and Nutrient Management Plan (SNMP) development for the Chorro Valley Basin may be complicated by a larger number of stakeholders (that may include regulatory agencies such as NOAA Fisheries and CDFW) and the need to account for more diverse land uses in a larger watershed.

Discharges to Chorro Creek will be scrutinized regarding potential downstream effects on high profile, state-protected estuarine habitat of national significance that provides habitat for dozens of listed species. Chorro Creek itself is officially named as critical habitat for federally listed steelhead and California red-legged frog. Actions that affect flow in Chorro Creek may attract the attention of state and federal resource agencies and petitions to remove discharge from the creek in the future (e.g., as reclaimed water demand increases) will require a Change Petition to the SWRCB Division of Water Rights and will be complicated by water rights issues and Biological Opinions. Requirements to maintain a minimum flow has been a challenge for the City of San Luis Obispo (SLO) in implementing its recycled water program. Due to the presence of steelhead trout, SLO has dedicated a portion of its Water Reclamation Facility effluent to maintain a minimum flow of 2.5 cfs in San Luis Obispo Creek for in-stream beneficial uses, in-stream habitat uses in particular. This minimum dedicated discharge is included in SLO's Water Reuse Project's SWRCB permit and is a required term and condition of the Biological Opinion issued by NOAA Fisheries. Consequently, SLO cannot fully utilize the reclaimed water generated as part of the Water Reuse Project.

Owing to the future regulatory actions named above, Chorro Creek may be subject to impairment evaluations that may result in more stringent nutrient regulations. The reopener provision in the Chorro Creek Nutrient Total Maximum Daily Load (TMDL) provides an opportunity for regulators to exercise new screening tools arising from the state policies on nutrients and biointegrity to revise POTW allocations downward.

Discharge to Morro Creek is accompanied by many of the same regulatory risks as discharge to Chorro Creek. Morro Creek will be similarly affected by the Biological Integrity assessment procedures and the Nutrient Policy for wadeable streams. The Toxicity and Bacteria policies will apply to both Creeks. However, Morro Creek does not discharge to a large, sensitive estuary, and has not previously been listed as impaired on the 303(d) list. There are no TMDLs for Morro Creek that can potentially be reopened and revised with unpredictable outcomes for dischargers.

Identification of constituents that might require numeric effluent limits for new types of discharges (Morro Creek, Chorro Creek, and percolation ponds) was based on a review of current effluent data. In addition, projected effluent quality based on planned upgrades to the treatment process was considered for ammonia, nitrogen, and total coliform. Salts data available from the *2012 Recycled Water Feasibility Study* (Dudek, Draft March 9, 2012) were also used for the evaluation.

OCEAN

The most significant benefits of maintaining the current ocean outfall for wet weather discharges, at a minimum, are (1) dilution will be granted in the permit resulting in less stringent effluent limits, (2) effluent limits for nutrients (nitrogen and phosphorus) and salts will be avoided, and (3) there is less risk from future regulatory actions planned by the SWRCB or from environmental sensitivity of receiving water. There would be no minimum flow requirements that could restrict the quantity of water that can be used for recycling. The Bacteria Policy would result in a revision to the Ocean Plan, but the enterococcus limits that are being proposed so far are not significantly different than the limits in the current Ocean Plan. In addition, the current ocean outfall presents opportunities for brine disposal to support local or regional solutions addressing water supply and salt and nutrient management.

Table 1. Comparison of Significant Regulatory Factors for Discharge Scenarios

	Rancho Colina			California Men's Colony
	Ocean Discharge	**Discharge to Surface Water**	**Discharge to Land**	**Discharge to Surface Water**
	Existing Ocean Outfall	**Morro Creek**	**Percolation ponds**	**Chorro Creek**
Type of Permit Needed	NPDES	NPDES	WDR	Modification of existing NPDES permit or issuance of new NPDES permit
Agencies that Approve the Discharge Permit	Regional Water Quality Control Board (RWQCB), USEPA	RWQCB, USEPA	RWQCB	RWQCB, USEPA
Permit Cycle	5 years	5 years	indefinite	5 years
Would Dilution be Granted?	Yes (Minimum of 133:1; additional dilution may be available)	No	No	No
Other Agencies that might evaluate the effects on Beneficial Uses in some contexts	unlikely	CDFW, NMFS	N/A	CDFW, NMFS
Beneficial Uses Assigned to Receiving Water[1]	REC1, REC2, IND, NAV, MAR, SHELL, COMM, RARE, WILD, MIGR	MUN, AGR, GWR, REC1, REC2, WILD, COLD, WARM, MIGR, SPWN, RARE, EST, FRESH, COMM	AGR, MUN	MUN, AGR, GWR, REC1, REC2, WILD, COLD, WARM, MIGR, SPWN, RARE, FRESH, COMM, BIOL
Will existing TMDLs affect the permit?	No	No	No	Nutrient TMDL: yes, N removal might be required and phosphate limits are likely. TMDL may be reopened in 2016. Sediment TMDL: maybe, if stream erosion is increased Bacteria TMDL: maybe (Title 22 bacteria limits may apply to discharge to stream)
Constituents in current effluent data set that may require an effluent limit	total cadmium, total copper, cyanide, nickel (salts), total zinc, dioxin,	antimony, total copper, cyanide, mercury, ammonia, dioxin, bis(2-ethylhexyl) phthalate	antimony, total nitrogen (based on ammonia data), bis(2-ethylhexyl) phthalate, total coliform	antimony, total copper, cyanide, mercury, ammonia, dioxin, bis(2-ethylhexyl) phthalate total nitrogen exceeds POTW allocation in Nutrient TMDL
Will numeric limits for Salts be applied?	No	Probably, if salts objectives are exceeded in effluent. Regional Board may make allowances for imported water quality.	Probably, if salts objectives for receiving groundwater are exceeded in effluent	Probably for one or more constituents. Regional Board may make allowances for imported water quality.

[1] See Attachment 2 for definitions of Beneficial Uses

	Rancho Colina			California Men's Colony
	Ocean Discharge	**Discharge to Surface Water**	**Discharge to Land**	**Discharge to Surface Water**
	Existing Ocean Outfall	**Morro Creek**	**Percolation ponds**	**Chorro Creek**
Would SNMP requirement apply?	Yes – if permit to recycle water is also requested	Yes	Yes	Yes. There may be opportunities for regional partners. SNMP process may be more complex.
Environmental Sensitivity	TBD	Morro Creek is designated Critical Habitat for federally listed south Central California coast DPS steelhead and California red-legged frog. Lower portion of creek is habitat for federally listed tidewater goby.	TBD	Chorro Creek is designated Critical Habitat for federally listed south Central California coast DPS steelhead and California red-legged frog. Chorro Creek discharges into a national "Estuary of Significance", and two State Marine Protected Areas. Estuary supports dozens of listed species. Oyster farming occurs in Morro Bay.

2. Current Regulatory Implications of Discharge Scenarios

The discharge options associated with the Rancho Colina and CMC sites involve different receiving waters as shown in Table 2. Three potential methods for disposal of effluent were considered for the Rancho Colina site: use of the existing ocean outfall, discharge into Morro Creek, and discharge to percolation ponds. Only one method of disposal was considered for the CMC site: expansion of the existing CMC treatment facility and outfall with discharge to Chorro Creek. This would provide the most direct benefit to the City of Morro Bay via augmentation of streamflow in Chorro Creek and recharge of City groundwater.

Table 2. Discharge Scenarios for the Morro Bay WRF and Associated Receiving Waters

Site/ Treatment Plant	Method of Discharge	Receiving Water
Rancho Colina/ New Reclamation Ready Treatment Plant	Existing Ocean Outfall	Estero Bay (Pacific Ocean)
	Outfall into Creek	Morro Creek
	Percolation Ponds	Morro Valley Groundwater Basin
CMC/ Expansion and upgrade of existing Treatment Plant	Outfall into Creek	Chorro Creek

PERMIT CATEGORIES

For regulatory purposes, discharges in California can generally be divided into the discharge of pollutants to surface waters (i.e., rivers, creeks, streams, lakes, ocean, etc.) or discharges to land (discharges that affect groundwater). Discharges to surface waters are regulated by permits issued under the National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act. Discharges to land are permitted through Waste Discharge Requirements (WDR) under the Porter-Cologne Act. NPDES permits require approval by the USEPA; WDRs do not require USEPA approval. In addition, for NPDES permits, serious violations pertaining to effluent limitation exceedances and failure to submit reports are subject to Mandatory Minimum Penalties (MMPs, e.g., $3000/violation) as described in the California Water Code Section 13385. Permit violations for WDRs are not subject to MMPs.

Details regarding the process and information required to apply for an NPDES permit or a WDR are provided in **Attachment 1**. NPDES permits are generally reissued every five years. WDRs have no predetermined renewal interval, and sometimes remain unaltered for long periods. Discharge through the existing ocean outfall or to either Morro Creek or Chorro Creek would require an NPDES permit. Discharge to percolation ponds would require a WDR.

In addition to the current 2008 Morro Bay-Cayucos WWTP Permit and the August 2013 Report of Waste Discharge (ROWD) for the Morro Bay-Cayucos WWTP, three recent permits from Region 3 were consulted, owing to their potential to shed light on permitting practices in Region 3:

- 2012 California Men's Colony Wastewater Treatment Plant, (ORDER No. R3-2012-0027/NPDES No. CA0047856), (2012 CMC Permit)
- 2011 Waste Discharge/Recycled Water Requirements for the Los Osos Water Recycling Facility (Order No. R3-2011-0001), (Los Osos WDR)
- 2012 Waste Discharge Requirements for the Tres Pinos Water District Wastewater Treatment Facility (Order No. R3-2012-0015), (Tres Pinos WDR)[2].

BENEFICIAL USES AND APPLICABLE WATER QUALITY OBJECTIVES

The water quality standards that apply to the receiving waters are described in several regulatory documents:

- Region 3, Central Coast Basin Plan (Basin Plan)
- Water Quality Control Plan for Ocean Waters of California (Ocean Plan)
- Drinking water standards in Title 22 of the California Code of Regulations (Title 22)
- California Toxics Rule (CTR)
- Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan)
- TMDLs that set targets and allocations for Chorro Creek:

The beneficial uses assigned to the four receiving waters and the applicable water quality objectives are outlined in **Attachment 2.** The sources of applicable water quality objectives for the discharge scenarios are compared in Table 3.

Table 3. Sources of Applicable Water Quality Objectives for Discharge Scenarios

	Ocean	Percolation Ponds	Morro Creek	Chorro Creek
Source of Applicable Water Quality Objectives	Basin Plan Ocean Plan Thermal Plan	Basin Plan Title 22	Basin Plan Title 22 CTR	Basin Plan Title 22 CTR 3 TMDLs

Numeric objectives are discussed in this section for a subset of constituents (bacteria, salts, and nutrients) which may have implications for treatment processes (e.g., nitrogen removal, disinfection, desalination), and thus create potentially significant contrast between the discharge options. In the fourth section of the memorandum (Effluent Quality Evaluation), applicable numeric water quality objectives are compared to effluent data (based on current data or projected data for the upgraded plant) to determine if an effluent limit would be needed under each discharge scenario. It should be noted that an exceedance of a water quality objective does not necessarily correspond to an exceedance of an effluent limit. This especially true for the ocean discharge

[2] While the Tres Pinos facility is located in San Benito County, it is indicative of current WDR permitting policy for the Central Coast Region.

scenario where effluent limits are determined by applying a dilution factor of 133 to the water quality objective.

TMDLs

Three TMDLs have been adopted that contain targets for Chorro Creek, which is a 303(d) listed impaired water body according to the federal Clean Water Act:

- 2005 TMDL for Nutrients and Dissolved Oxygen in Chorro Creek (Nutrient TMDL)
- 2003 TMDL for Pathogens for Morro Bay and Chorro and Los Osos Creeks (Pathogen TMDL)
- 2003 TMDL for Sediment including Chorro Creek, Los Osos Creek and the Morro Bay Estuary (Sediment TMDL)

The Nutrient TMDL has targets for nitrogen and phosphorus species, and allocations for the CMC WWTP, that have implications for the scenario in which the regional treatment facility discharges to Chorro Creek. These implications are explained below in the Nutrients subsection. The Nutrient TMDL also established targets for TDS and Sodium (Na), however they are equivalent to the Basin Plan objectives for Chorro Creek for TDS and Na, and are thus not particularly significant. The Pathogen TMDL resulted in total coliform targets for Chorro Creek. However, the numeric effluent limits for total coliform in the 2012 CMC Permit were stricter than the Pathogen TMDL targets and are consistent with Title 22 bacteria objectives for urban irrigation. The Sediment TMDL assigned numeric targets for turbidity (expressed as NTU) for Chorro Creek, and allocations for sediment flux (expressed as annual loads) to classes of erosional features (including stream banks) and land uses in the Morro Bay watershed. This TMDL did not affect the 2012 CMC Permit. It is possible that an increase in surface flow in Chorro Creek (e.g. owing to additional discharge from the City) could affect erosion of the stream banks; the combined discharge would approximately double the volume of water discharged to Chorro Creek.

No TMDLs have been adopted for Morro Creek or for Estero Bay, and there are no currently unaddressed water quality impairments for Morro Creek, Chorro Creek, Morro Bay, or Estero Bay on the 303(d) list.

Objectives that May Influence Treatment Options

Discharge options that involve surface water or groundwater may result in effluent limits for bacteria, nutrients (N and P), and salts that have significant implication for treatment options. The potential issues for each constituent group are summarized below.

Pathogens

Discharge to either Morro Creek or Chorro Creek will result in numeric effluent limits for pathogen indicators (i.e., bacteria). The bacteria limits in the 2012 CMC Permit were carried over from a previous permit (Order No. R3-2006-0032)[3] and are as follows:

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[3] The 2006 CMC Permit is not posted on the Region 3 website along with other 2006 Orders and Resolutions. Consequently, it was not possible at this time to review the reasoning behind the apparent assignment of the Title 22 bacteria standards for urban irrigation as numeric effluent limits *for discharges to the creek* (as opposed to requirements for recycled water only).

- Total coliform: 2.2 MPN/100 mL (7-day median)
- No more than one sample shall exceed 23 MPN/100 mL in any 30-day period;
- No sample shall exceed 240 MPN/100 mL.

The 7-day median total coliform effluent limit in the 2012 CMC Permit is much stricter than the Ocean Plan limits for total coliform.[4] They are equivalent to the Title 22 standards for recycled water for urban irrigation; the 7-day median limit for total coliform bacteria is also equivalent to the Basin Plan MUN objective for groundwater.

It is not clear whether the Regional Board would apply all of the Title 22 standards for recycled water to creek discharges by combined WWTP or the Morro Bay WRF, as they did in the 2012 CMC WWTP, or whether only the 7-day median for total coliform (for the groundwater MUN use) would be applied.

Salts

If the regional CMC facility continues to discharge to Chorro Creek, it is likely that the Regional Board will assign numeric effluent limits for one or more salt constituents. The Basin Plan establishes water quality objectives for salts for Chorro Creek as follows:

<u>Basin Plan Objectives for Surface Water in Chorro Creek (annual means)</u>

- TDS 500 mg/L (also a target in the Chorro Creek Nutrient TMDL)
- Cl 50 mg/L
- SO4 50 mg/L
- B 0.2 mg/L
- Na 50 mg/L (also a target in the Chorro Creek Nutrient TMDL)

In the 2012 CMC Permit, the Regional Board assigned a numeric effluent limit for SO4 (125 mg/L; 1,251 lbs/day) that exceeded the Basin Plan objective for Chorro Creek. The sulfate limit was intended to account for high background salt concentrations and salt loading from the water supply in facility influent, and was carried over from the previous 2006 permit.[5]

Although percolation ponds in the Chorro Valley Basin are not currently a discharge scenario under consideration, the groundwater objectives for salts and nitrogen for Chorro Valley Basin may inform Regional Board expectations for groundwater quality in the Morro Valley Basin, and are as follows:

<u>Chorro Valley Groundwater Basin Objectives for Salts</u>

- TDS 1,000 mg/L

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[4] Ocean Plan total coliform limits are 1,000/100 mL (30-day geomeans) (REC1); 10,000/100 mL (single sample maximum) (REC2)

[5] The sulfate effluent limit is justified in the Fact Sheet (Attachment F) of the 2012 CMC Permit as follows: "*Typically, waste discharge requirements incorporate the Basin Plan's specific, numeric WQOs as effluent limitations. Although convention generally sets effluent limitations at the Basin Plan's WQOs, the previous Order does not use Table 3-7 Basin Plan numeric WQOs as effluent limitations. Instead, the existing effluent limitation (for sulfate) is greater than WQOs in Basin Plan Table 3-7 to account for high background salt concentrations and uncontrollable salt loading from the water supply in Facility influent. Consistent with the previous Order, this Order shall establish a limitation for sulfate that is characteristic of the natural receiving water*."

- Cl 250 mg/L
- SO4 100 mg/L
- Na 50 mg/L
- B 0.2 mg/L

Although the Basin Plan does not currently include groundwater objectives for salts specific to Morro Valley Basin, the Regional Board may establish them in the future. The June 8, 2011, edition of the Basin Plan includes a priority list for future Regional Board tasks, established in 1988 (referred to as the "Triennial Review List"). "Establishment of Morro Valley Basin ground water objectives" appears as item 40 out of 49 tasks. The evaluation of current groundwater quality in Morro Valley Basin with respect to salts and nutrients, and the quantification of the effects on groundwater of future discharges to land or surface water in the Morro Valley Basin (including application of reclaimed water), would be elements of a Salt & Nutrient Management Plan[6] that the Regional Board is likely to require if a permit is sought to apply reclaimed water to land overlying the Morro Valley Basin.

There is recent precedent for assignment of numeric effluent limits for salts for percolation ponds in Region 3. The 2012 Tres Pinos WDR for discharge to percolation ponds included numeric effluent limits for three salt constituents:

- TDS 1,200 mg/L
- Na 200 mg/L
- Cl 200 mg/L

The ponds discharge to the San Juan subbasin of the Gilroy-Hollister Basin. This subbasin is not assigned specific salt objectives in the Basin Plan.

The 2011 Los Osos WDR, which also addresses discharge to groundwater (via leach fields and recycled water) does not contain numeric effluent limits for salts, and the Los Osos Valley groundwater basin is not assigned salt objectives in the Basin Plan. However, based on information in the Los Osos WDR regarding data through 2010, sea water intrusion is an issue in the lower aquifer into which the leach fields discharge, so this permit may not provide a good analogy for a scenario in which a new Morro Bay WRF would discharge to percolation ponds in the Morro Valley Basin.

Nutrients

Discharge to either creek, and to percolation ponds, will result in effluent limits for one or more nitrogen species. Discharge to Chorro Creek may result in effluent limits for orthophosphorus. Discharge to the ocean outfall will not result in effluent limits for nutrients. Additional background on applicable objectives and recent Region 3 permit limits for nutrients is provided below.

<u>Discharge to Chorro Creek</u>. If the existing CMC facility is expanded and discharge to Chorro Creek is increased, it is likely that the Regional Board will assign numeric effluent limits for total nitrogen (TN) and "orthophosphorus."[7] The impetus for the limits would be the targets in the

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[6] Salt and Nutrient Management Plans are discussed later in the document.

[7] Based on the 2012 CMC Permit Fact Sheet, the Regional Board is interpreting "orthophosphorus" to be "phosphate" + "orthophosphate".

Chorro Creek Nutrient TMDL.[8] The TMDL targets are compared to the corresponding TMDL allocations for the CMC WWTP and numeric effluent limits in the 2012 CMC Permit in Table 4.

Table 4. Comparison of Nutrient TMDL Targets for Nitrate and Orthophosphorus with Effluent Limits in the 2012 CMC Permit.

	TMDL In-Stream Target	CMC WWTP Allocation in the TMDL	CMC Permit Limit
N	Nitrate-N: 1.5 mg/L Determined as a rolling median May-Sept. measured in half-mile reach upstream from South Bay Boulevard crossing.	"The monthly maximum nitrate-N concentration of effluent shall not exceed 10 mg/L-N."	Total Nitrogen: 10 mg/L (monthly maximum) 100 lbs/day (based on 1.2 MGD design flow) No ammonia limit
P	"Orthophosphorus- P": 0.4 mg/L Determined as a rolling median May-Sept. measured in half-mile reach upstream from South Bay Boulevard crossing	"Median orthophosphorus-P concentration of effluent from May through September shall not exceed current levels, as measured by a comparison to effluent concentration from 2004 and 2005."	Orthosphosphate-P: A cap based on effluent concentration 2004-2005. The Fact Sheet of the 2012 CMC Permit identifies median May-Sept. orthophosphorus as 2.4 mg P/L.

It is possible that increased loading of TN and phosphate to Chorro Creek due to the additional flow from a regional facility may result in a change in effluent limits. The justification for assigning generous limits for TN and orthophosphorus in the 2012 CMC permit appeared to hinge on natural attenuation of nitrate and phosphate downstream from the CMC outfall. It is worth noting that the Regional Board carried over the TN limit from the 2006 CMC Permit with the expectation that treatment upgrades at the CMC WWTP would achieve single-digit nitrate concentrations in the future.[9]

Based on limited data for total ammonia, the concentration of TN in the current effluent from the Morro Bay/Cayucos WWTP is over 20 mg N/L (at least two times higher in terms of nitrogen content than the effluent limit for TN in the 2012 CMC Permit). However, no nutrient removal is performed at the Morro Bay/Cayucos WWTP whereas the CMC facility does perform nitrogen

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[8] The Regional Board arrived at the nitrate and orthophosphorus allocations for the CMC WWTP by determining that although the CMC discharge elevated nutrient concentrations in the stream above the TMDL targets below the outfall, there was sufficient in-stream attenuation below the outfall to achieve the TMDL targets at the compliance point for the TMDL further downstream (the half-mile reach upstream from South Bay Boulevard). The determination was made by comparing stream concentration data from monitoring sites, and not by evaluating assimilative capacity directly (for example by using a water quality model).

[9] "*Note that achieving the nitrate-N and orthophosphorus-P allocations at the point of discharge will result in achieving the TMDLs for these constituents in the lower reaches of Chorro Creek. Also note that although the nitrate-N allocation is 10 mg/L-N, the technology of the plant upgrade for the CMC facility is expected to result in single digit nitrate-N concentration in the discharge. It is also anticipated that the plant upgrade will result in reduced effluent orthophosphorus-P concentration*." (TMDL Project Report, p. 35)

removal. The daily maximum load of TN allowed in the CMC 2012 Permit was based on a final effluent limitation of 10 mg N/L and a design flow of 1.2 MGD. Discharge to Chorro Creek is expected to require expansion of nitrogen removal (nitrification/denitrification) at the CMC facility to treat additional flow from the City. By similar reasoning, the Regional Board may consider additional significant orthophosphorus loading to Chorro Creek to be inconsistent with the goals for controlling benthic algal cover and dissolved oxygen concentrations in the lower reaches of Chorro Creek.

Discharge to Morro Creek. If the Morro Bay WRF discharges to Morro Creek, the surface water objectives that would currently govern expectations for nutrient concentrations would be the narrative objective for biostimulatory substances, and the following drinking water objectives for nitrate and nitrite:

- Nitrate (as NO3): 45 mg/L (Basin Plan MUN and Title 22)
- Nitrate + Nitrite (as N): 10 mg/L (Title 22)
- Nitrite (as N): 1 mg/L (Title 22)

Discharge to Groundwater. If the Morro Bay WRF discharges to percolation ponds in the Morro Valley Basin, the MUN objective for nitrate (10 mg/L nitrate-N) would likely be the governing objective. However, the neighboring Chorro Valley groundwater basin has an objective of 5 mg/L TN. The available recent permits for discharge to groundwater in Region 3 resulted in different types of numeric effluent limits for nitrogen species, as follows:

Los Osos WDR:

- Total Nitrogen: 10 mg N/L (daily maximum), 7 mg N/L (30-day average)

Tres Pinos WDR (final limits, by 2016):

- Nitrate: 5 mg/L as N (30-d ave.)
- Ammonia: 5 mg/L as N (30-d ave.)

As was noted above in the case of salts, the percolation ponds regulated by the Tres Pinos WDR discharge to a groundwater basin (the San Juan subbasin) that has not been assigned specific nitrate or TN objectives in the Basin Plan. The Los Osos Valley groundwater basin is identified in the Basin Plan, but not assigned nitrate or TN objectives.

OTHER CURRENT REGULATORY CONSIDERATIONS

Salt and Nutrient Management Plans

In November 2008 the SWRCB adopted the Statewide Recycled Water Policy, which requires the development of regional or sub-regional salt and nutrient management plans (SNMPs) for groundwater basins in California by 2014 (with the potential for a two year extension if substantial progress towards development of a plan is being made). SNMPs will be adopted by Regional Boards as Basin Plan amendments. According to the state policy, SNMPs must include the following components:

- Basin/sub-basin wide monitoring plan
    - Assess groundwater quality, preferably by sampling existing wells
    - Focus on groundwater near large recycling and recharge projects and near water supply wells

    - Target where appropriate ground and surface water in areas of connectivity
- Annual monitoring for contaminants of emerging concern (CECs)
- Water recycling and stormwater recharge/use goals and objectives
- Salt and nutrient source identification, loading estimates, assimilative capacity, and fate and transport
- Implementation measures to manage salt and nutrient loading in the [groundwater] basin on a sustainable basis
- Antidegradation analysis

In Region 3, this SNMP requirement is being implemented by inclusion of provisions in WDRs or NDPES permits for facilities which use reclaimed water for irrigation. In the 2012 CMC Permit, *Section (a) Salt and Nutrient Management* (in the Best Management Practices and Pollution Minimization Program) describes in great detail required elements of a salt and nutrient management program specific to the facility, and then provides the option to alternatively satisfy the detailed requirements through participation in a regional salt and nutrient management plan.

Required elements of Central Coast SNMPs are detailed in a February 2014 document available on the Region 3 website.[10] Based on a September 13, 2013, Salt and Nutrient Management Plan Update (powerpoint presentation by the Region 3 Staff for the Central Coast Forum), a regional SNMP effort was tentatively underway at the time for the Los Osos Valley, but not the Chorro Valley.

Because the Morro Bay WRF will involve a significant reclaimed water component, a requirement to either perform a facility-specific salt and nutrient management program or to participate in a regional salt and nutrient management plan is a guaranteed element of the eventual permit regardless of the site of the wet weather discharge. However, it is possible that by the time the Morro Bay WRF or the expanded CMC facility is built, a regional SNMP might be underway in the Chorro Valley and that some economy of effort could be achieved by the City of Morro Bay participating in the regional planning effort with partner agencies.

Environmental Sensitivity of Receiving Waters

Discharges to Chorro Creek, in particular, may be subject to regulations associated with presence of sensitive habitat and species. Morro Bay is one of only 28 estuaries nationwide that have been designated as "estuaries of national significance" and supports more than two dozen endangered species. Chorro Creek terminates in the Morro Bay Estuary which is afforded additional protection by virtue of the Morro Bay State Marine Recreational Management Area and the Morro Bay State Marine Reserve. Within these protected areas fishing and take of all living marine resources is prohibited except that in a northern portion of the Bay, recreational fishing and aquaculture of oysters, pursuant to a valid State water bottom lease and permit, is permitted. Oysters are commercially farmed in Morro Bay by the Morro Bay Oyster Company and the Grassy Bar Oyster Company. Both Morro and Chorro Creeks are designated Critical Habitat for federally listed South Central California Coast DPS steelhead and California red-legged frog. Lower portions of both creeks are habitat for federally listed tidewater goby. Downstream from the CMC WWTP

[10] Informational Document: Salt and Nutrient Management Plan Development. February 2014. Available at http://www.waterboards.ca.gov/centralcoast/water_issues/programs/nutrient_mgmt/index.shtml.

discharge, approximately two miles of Chorro Creek flows through the Chorro Creek Ecological Reserve.

Regionalization Issues

If discharge to Chorro Creek occurs through establishment of a new regional facility, there will be additional complexity related to the formation of a joint powers authority (JPA) or similar governing body able to receive influent from more than one sanitary district with a single NPDES permit issued for a regional facility. This added layer of regulatory complexity would be avoided if discharge occurs to one of the other receiving waters.

3. Effluent Quality Evaluation

Effluent data from semi-annual sampling reports and conductivity/TDS monitoring data for the current Morro Bay-Cayucos WWTP were reviewed as an initial assessment of potential water quality issues under the four discharge scenarios. This data did not include all constituents of potential concern because not all monitored constituents were found in this report as described below. Because effluent quality is expected to improve with the proposed upgrades, it is anticipated that a subset of the constituents identified in this analysis would require effluent limits. Therefore, this analysis provides a preliminary comparison of constituents that could require effluent limits under the different discharge scenarios.

In accordance with the method in the SIP for determining "reasonable potential" (Reasonable Potential Analysis, or RPA) for inland surface waters, the maximum detected concentrations for constituents in effluent were compared with the lowest water quality criteria from the applicable suite of objectives for the creek and percolation pond scenarios. RPA for the ocean outfall scenario followed the procedure identified in the Ocean Plan. Effluent was compared with the suites of objectives pertaining to the following scenarios:

1. Discharge to fresh surface water (using objectives from CTR, Basin Plan, Title 22)
2. Discharge to fresh surface water using potential future CTR objectives (based on the revised USEPA criteria described above)
3. Discharge to ocean (using objectives from the Ocean Plan and Basin Plan)
4. Discharge to land (using Basin Plan groundwater objectives)

The effluent dataset included semi-annual sampling data from January 2010 through January 2014 and daily conductivity/TDS monitoring from July 2012 through July 2013. The constituents reported included organics, inorganics (metals), toxicity, nitrate-N, ammonia-N, coliform, pH, and TDS. Inorganics, nitrate and toxicity were generally monitored semi-annually (9 data points each), while organics were monitored annually (4 data points each). Ammonia is sampled monthly and total coliform is sampled 5 days per week. The maximum concentrations for these constituents were obtained from the August 2013 ROWD. Data for salts were from six 24-hour composite samples taken between February 8, 2012 and February 14, 2012 (*2012 Recycled Water Feasibility Study*, Dudek, Draft March 9, 2012). The data reports evaluated did not provide results for total nitrogen and dozens of Title 22 and CTR constituents. Several inorganics applicable to Basin Plan objectives for AGR, WARM/COLD, SPWN were also not screened. A table of these unscreened constituents is provided in **Attachment 3**. Constituents for which there are applicable water quality objectives, but which were not detected in any of the effluent data screened, are also provided in **Attachment 3**.

DISCHARGE TO SURFACE WATER

Both Chorro Creek and Morro Creek are assigned the MUN use, so Title 22 MCLs were included in the suite of objectives for RPA. Concentrations of ten constituents in effluent exceeded the lowest applicable objective. Hardness was assumed to be 150 mg/L. Ammonia-N exceeds the total nitrogen limit in the 2012 CMC Permit (10 mg/L total nitrogen) but expansion of nitrogen removal processes at CMC is expected as part of the regionalization effort. Detailed results are provided in **Attachment 3**.

Updated human health CTR criteria were proposed for 90 constituents in 2014. Only three of the updated constituents that are monitored in effluent were detected (cyanide, bis(2-ethylhexyl) phthalate, toluene), concentrations for two of them exceeded the proposed updated criterion (cyanide, bis(2-ethylhexyl) phthalate). However, concentrations of these two constituents exceed the *current* CTR criteria and it is not likely that these concentrations would be lowered as a result of the planned upgrades to the treatment process. Therefore, there would be no difference in reasonable potential in the case of these two constituents should the 2014 proposed criteria be adopted.

DISCHARGE TO OCEAN

The Ocean Plan RPA is very different from the RPA for inland surface waters. A tool called RPCalc2.0 is used on each individual constituent's dataset, with a dilution of 133 for this discharge and ambient concentrations from the Ocean Plan. Three endpoints are possible: 1=reasonable potential, 2=no reasonable potential, 3=inconclusive, continue collecting data. Three constituents had reasonable potential with Ocean Plan objectives, while 11 had an inconclusive result, and 8 had a result of "no reasonable potential." Detailed results are provided in **Attachment 3**.

DISCHARGE TO LAND

Concentrations of seven constituents in effluent exceeded the lowest applicable objective, including four salts (boron, chloride, sodium, and TDS) and ammonia-N at current concentrations. However, ammonia concentrations would be reduced as by the projected plant upgrade or as a result of expansion of the CMC facility. Detailed results are provided in **Attachment 3**.

SUMMARY

Table 5 summarizes the criteria exceeded by effluent concentrations for detected constituents (or showing reasonable potential under the Ocean Plan) under the various discharge scenarios. In addition, although there was no data for total nitrogen in the dataset screened, ammonia-N exceeds the basin plan objective for groundwater for Chorro Valley Basin (5 mg/L total nitrogen), and the total nitrogen limit in the 2012 CMC Permit (10 mg/L total nitrogen). In addition, the maximum 7-day median total coliform value in the screened data set (50 MPN/mL) exceeds the 7-day median total coliform effluent limit MUN limit assigned to groundwater in Region 3 (2.2 MPN/L), which was assigned to the creek discharge in the 2012 CMC Permit. However, ammonia, total nitrogen, and coliform bacteria concentrations are expected to be reduced by the projected plant upgrade or as a result of expansion of the CMC facility.

While a similar set of effluent limits would be required for an ocean discharge or surface water discharge, the effluent limits for the ocean discharge would be much higher due to the dilution credit of 133:1.

Table 5. Summary of Constituents Likely to Have Effluent Limits for Discharge Scenarios

Constituent	Units	Detected Effluent Maximum [a]	Freshwater			Ocean		Groundwater
			Basin Plan Objectives	CTR	Title 22 MCLs	Ocean Plan RPA	Basin Plan Objectives	Basin Plan Objectives & Title 22 MCLs
Constituents with concentrations likely to change based on the plant design/upgrades:								
Ammonia (as N)	mg/L	ND[b]						
Nitrogen	mg/L	10[b]						X
Total Coliform	MPN/ 100mL	2.2[b]						
Constituents with concentrations that may incidentally change due to upgrades:								
Antimony	µg/L	11			X			X
Cadmium, Total	µg/L	0.64	[c]				X	
Copper, Total	µg/L	22	[c]	X		X	X	
Cyanide	µg/L	94		X		X		
Mercury	µg/L	0.088		X				
Nickel, Total	µg/L	4.3					X (salts)	
Zinc, Total	µg/L	71	[c]				X	
2,3,7,8-TCDD (dioxin)	µg/L	1.8E-07		X		X		
Bis(2-ethylhexyl) Phthalate	µg/L	8.2	X	X	X			X
pH	SU	7.3-7.9	[d]					
Constituents with concentrations that are not expected to change due to plant upgrades:								
Boron	mg/L	0.4[e]	X					X
Chloride	mg/L	369[e]	X		X			X
Sodium	mg/L	223[e]	X					X
TDS	mg/L	1,077[f]	X		X			X
Total				**10**			**6**	**7**

[a] Based on data in annual and semi-annual reports unless noted otherwise

[b] Adjusted based on anticipated future effluent quality from new WRF (Tertiary-2.2 for unrestricted reuse per Title 22 Regulations). Projected concentrations of ammonia and total coliform do not exceed the water quality objectives but may receive effluent limits nevertheless.

[c] Basin Plan objectives for "soft" water (hardness < 100 mg/L) would trigger exceedances with the maximum effluent concentration.

[d] pH levels are currently very stable, however this could change with the treatment plant upgrade.

[e] Data are from six 24-hour composite samples taken between February 8, 2012 and February 14, 2012 (*2012 Recycled Water Feasibility Study*, Dudek, Draft March 9, 2012

[f] Data from daily conductivity/TDS monitoring were provided from July 2012 through July 2013.

4. Future Considerations

Several regulatory actions at either the state or federal level are anticipated in the near future that may affect permit requirements or the regulatory burden associated with some of the discharge scenarios. The actions are briefly described below.

Biological Integrity Assessment Implementation Plan

Starting in 2010, the SWRCB has been engaged in technical and stakeholder processes to develop a consistent methodology for using bioassessment data (indices of biological integrity, or IBIs) for impairment listings and identification of controllable pollutants causing biological community impairment that can be addressed by TMDLs, waste discharge permits, and other regulations. The SWRCB will adopt standardized metrics and monitoring protocols, and adopt statewide *guidance* for Regional Boards to interpret the biological data for 303(d) listing purposes, TMDL development and permit writing.[11] The SWRCB is beginning by addressing benthic invertebrates in streams, but intends to consider other types of community indices, such as for microalgae.

The SWRCB has already proposed: (1) the metric that will be used to interpret bioassessment data for stream benthic invertebrates (the California Stream Condition Index, or CSCI), (2) a reference stream data set and methods for defining reference conditions, (3) a stressor-identification framework (Causal Assessment), and (4) at least one tool for causal assessment (CADDIS) proposed for use in assigning responsibility for benthic community impairment to one or more pollutants (such as sediment or nutrients) or non-chemical stressors (such as hydromodification). The framework for implementation is still being developed (for example, addressing controversial issues such as expectations for modified stream channels).

The implementation of the CSCI in the regulatory setting is controversial and has implications for dischargers to wadeable streams. The "stressor ID" process has been demonstrated in case studies and at least one TMDL in Region 4 (2013 Malibu Creek and Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments) to provide a rationale for stringent nutrient regulation. In the case of the Malibu TMDL, benthic invertebrate index data and Causal Assessment were used as a basis for revising POTW nutrient allocations significantly downward from those promulgated in a previous (2003) nutrient TMDL (new allocations were 1.0 mg /L TN and 0.1 mg /L TP during summer months).

Proposed Policy for Nutrients for Inland Surface Waters

The State Water Board is developing a nutrient policy for inland surface waters. The State Water Board intends to develop narrative nutrient objectives, with numeric guidance to translate the narrative objectives. This numeric guidance could include the "Nutrient Numeric Endpoint" (NNE) framework which establishes numeric endpoints based on the response of a water body to nutrient overenrichment (e.g. algal biomass, dissolved oxygen, etc.).

[11] The currently applicable background information, technical documents, and advisory group information is available at http://www.waterboards.ca.gov/plans_policies/biological_objective.shtml.

Disjunct but overlapping processes have been underway since 2006 to evaluate approaches for regulating nutrient discharges to four different classes of inland water bodies:

- Streams and Lakes
- Coastal estuaries
- San Francisco Estuary (SFE, includes Suisun Bay)
- Sacramento-San Joaquin Delta

Much of the technical foundation for establishment of NNEs for wadeable streams had been developed with SWRCB funding and oversight, but without stakeholder involvement, prior to June 2014. The NNE process for inland water bodies (other than those for the SFE and the Delta, which appear to be continuing on separate tracks) was recently "reset", and a formal stakeholder process for NNEs for inland waters (initially to address wadeable streams) began in June 2014.[12] The recent scientific work products produced by SCCWRP (expected for public release in August 2014) indicate that nutrient thresholds for wadeable streams derived using correlational approaches and statewide monitoring databases, if applied as effluent limits, would be unattainable without reverse osmosis. Consequently there is a recognition that alternative regulatory pathways may be important for establishing NPDES permit limits for N and P for POTWs. This possibility is part of the discussion between dischargers and regulators in the newly formed "Inland Water NNE SAG". If offered in a formal framework, the alternative pathway may require dischargers to sponsor site-specific studies of nutrient responses in stream watersheds or conduct expensive modeling of the impacts on beneficial uses of management actions on watershed scales.

Although the current SWRCB website for the Nutrient Policy qualifies the *current process* as one that *excludes* enclosed bays and estuaries, much of the technical work to support NNE development for enclosed estuaries took place already through the California Estuarine Nutrient Numeric Endpoint Project[13] with the involvement of a technical team lead by SCCWRP, a regulatory advisory group ("STRTAG" comprised of SWRCB, Regional Board, USEPA and resource agency staff), and a Coastal Stakeholder Advisory Group (Coastal SAG) that had been meeting since 2009. The Coastal Estuary nutrient process appears to have been put on hold temporarily, and the SWRCB has prioritized development of an NNE policy for wadeable streams. However, as shown in the tentative schedule in Table , estuaries will be addressed in the Nutrient Policy in the next five years.

[12] http://www.waterboards.ca.gov/plans_policies/nutrients.shtml

[13] https://californiaestuarinenneproject.shutterfly.com/

Table 6. Tentative Schedule for Nutrient Policy Development in California.*

Task	Science	Regulatory Amendments	
		Development	Adoption
Conceptual Approach	2014	2015	2017
Wadeable Streams	2014	2015	2017
Lakes	2014-2017	2017	2018
Estuaries and Non-wadeable streams/rivers	2014-2018	2018	2020

*Timelines for the SFE and Delta have not been determined.

The Nutrient Policy creates significant regulatory uncertainty and risk for dischargers to wadeable streams. In addition, owing to potential application of new indicators of nutrient impairment in estuaries (such as new screening values for DO, pH, and benthic macroalgae or new IBIs for benthic infauna or sensitive fish), Morro Bay Estuary might become listed in the future for nutrient-related impairment. In that case, nutrient discharges to Chorro Creek might be reevaluated in the context of their effect on the estuary downstream. Regardless of conditions in the Morro Bay Estuary, the Chorro Creek Nutrient TMDL is subject to a reopening in July 2016. The Regional Board has the discretion to adjust nutrient allocations for POTWs in the TMDL if the targets for benthic algae and dissolved oxygen are unattained at that time. As part of the recent NNE-related technical work described above, SCCWRP is proposing that thresholds for impairment for benthic algal biomass should be much lower than those applied during the early "test runs" of the Benthic Biomass Tool. This may result in Regional Boards establishing lower nutrient targets in TMDLs across the state, and could affect the targets in the Chorro Creek Nutrient TMDL at some point in the future. Finally, although Morro Creek is not currently on the 303(d) list for nutrient-related impairments, its status might change if monitoring data are screened using NNEs recommended by the SWRCB.

State Policy for Toxicity Assessment and Control (Toxicity Policy)

SWRCB Resolution 2005-0019 required revisions to the toxicity provisions in the SIP. In June 2010, the SWRCB released a draft "Policy for Whole Effluent Toxicity Assessment and Control" which included a new methodology for calculating toxicity (Test of Significant Toxicity, or TST) that had been described in a June 2010 document released by USEPA. Following public outreach and comments, peer review, and other steps, the SWRCB issued a revised draft policy in June 2012 that would promulgate new water quality objectives for toxicity for all inland surface waters, enclosed bays, and estuaries of the state. The new objectives would supercede the current toxicity control provisions in the SIP and all toxicity testing provisions in individual Basin Plans. The draft policy includes the following types of provisions:

- Numeric objectives for chronic and acute toxicity
- Chronic and acute toxicity limits
- Reasonable potential analysis and test species screening
- Accelerated monitoring and TRE implementation

The draft policy elicited significant concern from POTWs that discharge to inland waters. A partial list of POTW concerns follows.

Numeric Limits versus Triggers. Currently, most NPDES permits contain narrative objectives for toxicity and numeric triggers that prompt additional sampling and source investigation (e.g., Toxicity Reduction Evaluations, or TRE). This policy would result in numeric limits for toxicity, and dischargers would be considered to be in violation of their permits before there is a chance to determine the cause of the toxicity.

New Statistical Method for Defining Toxicity. The TST is a a new probability-based method for calculating toxicity, based on a null hypothesis that a sample is toxic. Stakeholders have compared the performance of the TST and existing approaches (i.e., calculation of acute toxicity Toxic Units Acute (TUa) and Toxic Units Chronic (TUc)) using WET testing data. They argue that a high false positive error rate is inherent using the TST, and that use of the TST will lead to 303(d) listings for a high percentage of non-toxic waters.

Dischargers with no Dilution. Consideration of the true In-Stream Waste Concentration (IWC) is disallowed during the determination of "pass" or "fail" for dischargers that have no mixing zone or dilution credits.

Immediate Non-Compliance. The draft policy mandates that POTWs without dilution must produce effluent that is free of toxicity at all times. The draft policy includes a maximum daily effluent limitation (MDEL) that would result in an effluent limitation violation as a result of a single sample exceedance.

Higher Costs of Individual Tests. The TST is highly sensitive to the variability of test organism survival in test and control water. Consequently, in order to avoid invalid "fail" results, dischargers may have to pay for an increased number of replicates during routine toxicity tests.

Acute Toxicity Tests. The draft policy creates potential that Permits will contain requirements to conduct acute toxicity tests in addition to (more sensitive) chronic toxicity tests.

Reasonable Potential. The draft policy stipulates that all POTWs with average daily flow above 1 MGD have reasonable potential to cause toxicity *by rule*.

State Policy on Bacteria

The SWRCB is proposing a statewide control program to protect recreational users from the effects of pathogens in California water bodies. The program would be adopted as amendments to both the Inland Surface Water, Enclosed Bays and Estuaries Plan and the California Ocean Plan. Significant proposed program elements may include: new water quality objectives for both fresh and marine waters based on the recently released (2012) USEPA recreational use criteria; a reference beach/natural source exclusion process and high flow exemptions; and revised beach notification requirements.

The USEPA's 2012 recreational water quality criteria recommends use of either enterococci and E. coli for freshwater and only enterococci for marine water. Recommended criteria are provided in Table 7.

Table 7. USEPA 2012 Recommended Recreational Use Standards for Bacteria.*

	Enteroccoci		E. coli	
	30-day geomean	single sample threshold	30-day geomean	single sample threshold
Marine	30-35 cfu/100 mL	110-130 cfu/mL	N/A	N/A
Fresh	30-35 cfu/100 mL	110-130 cfu/mL	100-126 cfu/mL	320-410 cfu/mL

*Ranges apply to different illness rates.

Preliminary considerations related to the Morro Bay WRF discharge options are as follows:

Ocean Outfall

- Receiving water limitations
    - Receiving water limitations for total coliform related to the REC uses might be dropped from future permits. However, the SHELL use objectives in the Ocean Plan (for fecal coliform) may not change as a result of the Bacteria Policy, and could remain as receiving water limitations.
    - Receiving water limitations for enterococcus will likely remain. The 2012 USEPA 30-day geomean standards are similar (30-35 cfu/100 mL, depending on the risk level chose) to those that are already in the Ocean Plan.
    - Following the 2012 USEPA recommendation, enterococcus in 10% of samples within a 30-day period should not exceed 110-130 cfu/100 mL. This objective is slightly more lenient than the current "single sample maximum" for enterococcus of 104/100 mL in the Ocean Plan.
- Estero Bay is not currently listed as impaired for pathogens on the 303(d) list. If that changes in the future, the new Bacteria Policy may provide clarity to the Regional Board regarding whether to apply natural source exclusion in a TMDL.

Discharge to Chorro Creek

- Bacteria limits for the CMC WWTP discharge are equivalent to the Title 22 standards for recycled water, and are not governed by the (more lenient) current REC1 and REC2 Basin Plan objectives for fecal coliform. The Bacteria Policy does not set out to alter the Title 22 standards.
- Chorro Creek and downstream Morro Bay Estuary are already subject to the bacteria targets in the Pathogen TMDL. However, the targets are for fecal coliform. The Bacteria Policy may replace fecal coliform with E. coli as the REC1 and REC2 indicator test organism. Depending on how the SWRCB implements the Bacteria Policy, the Pathogen TMDL might have to be reopened to revise the targets and allocations.

Discharge to Morro Creek

- The new USEPA criteria for E. coli might supercede the Basin Plan objectives for fecal coliform for REC1 and REC2, and might become the governing objectives.

High flow exemptions

- High flow exemptions might shield the Morro Bay WRF from bacteria exceedances during some of the conditions when they expect to need a discharge option.

Percolation Ponds

- The Bacteria Policy would not affect a WDR for percolation ponds.

Proposed Revision of US EPA Human Health Criteria

USEPA recently updated its national recommended water quality criteria for human health for 94 chemical pollutants to reflect newer scientific information and EPA policies, including updated fish consumption rates.[14] The new recommended criteria are significantly lower, in some cases, than the current criteria and higher, in some cases. In order for these new criteria to be implemented in NPDES permits in California, they would need to be incorporated into the California Toxics Rule.

The updated criteria were compared to the current Morro Bay/Cayucos effluent data. Only three of the subject constituents that are monitored in effluent were detected (i.e., cyanide, bis (2-ethylhexyl) phthalate, and cyanide) and concentrations for two of them exceeded the proposed criterion. However, concentrations of the same two constituents exceed the *current* CTR criteria, so there would be no difference in constituents requiring effluent limits should the 2014 proposed criteria be adopted.

Water Rights

There may be regulatory implications associated with a WRF discharge that increases surface flow in either Morro or Chorro Creek with the expectation that effluent can be diverted from the stream later as capacity to reclaim water is developed. Under California Water Code Section 1211, changes in the discharge or use of treated wastewater that result in decreasing the flows in a portion of a watercourse must be approved by the SWRCB Division of Water Rights. Review of a "Change Petition" will be conducted pursuant to Water Code Section 1700 et seq. The petitioner must include sufficient information to demonstrate a reasonable likelihood that the proposed change will not injure any other legal user of water and must include information about measures to protect fish and wildlife. State and federal resource agencies will evaluate the Change Petition regarding impacts of the diversion on state or federally listed species or their habitat. The origin of the water to be diverted (foreign or natural) bears upon the legal analysis of water rights in Change Petitions. It may be advisable for the City to consider whether a water rights decision (i.e., conferring rights to the effluent) is necessary before commencing to discharge to either Creek. The legal analysis of water rights will be more complicated if the facility influent represents a combination of extracted groundwater (i.e., from city wells) and imported water.

Challenges faced by the City of San Luis Obispo (SLO) in implementing their recycled water program serves as an example of this issue. As discussed above, SLO has dedicated a portion of its Water Reclamation Facility effluent to maintain a minimum flow of 2.5 cfs in San Luis Obispo Creek for in-stream beneficial uses, in-stream habitat uses in particular. This minimum dedicated discharge is included in SLO's Water Reuse Project's SWRCB 'Permit for Change in

[14] The supporting technical information for each of the affected constituents is available on an interactive website table at http://water.epa.gov/scitech/swguidance/standards/criteria/current/hhdraft.cfm.

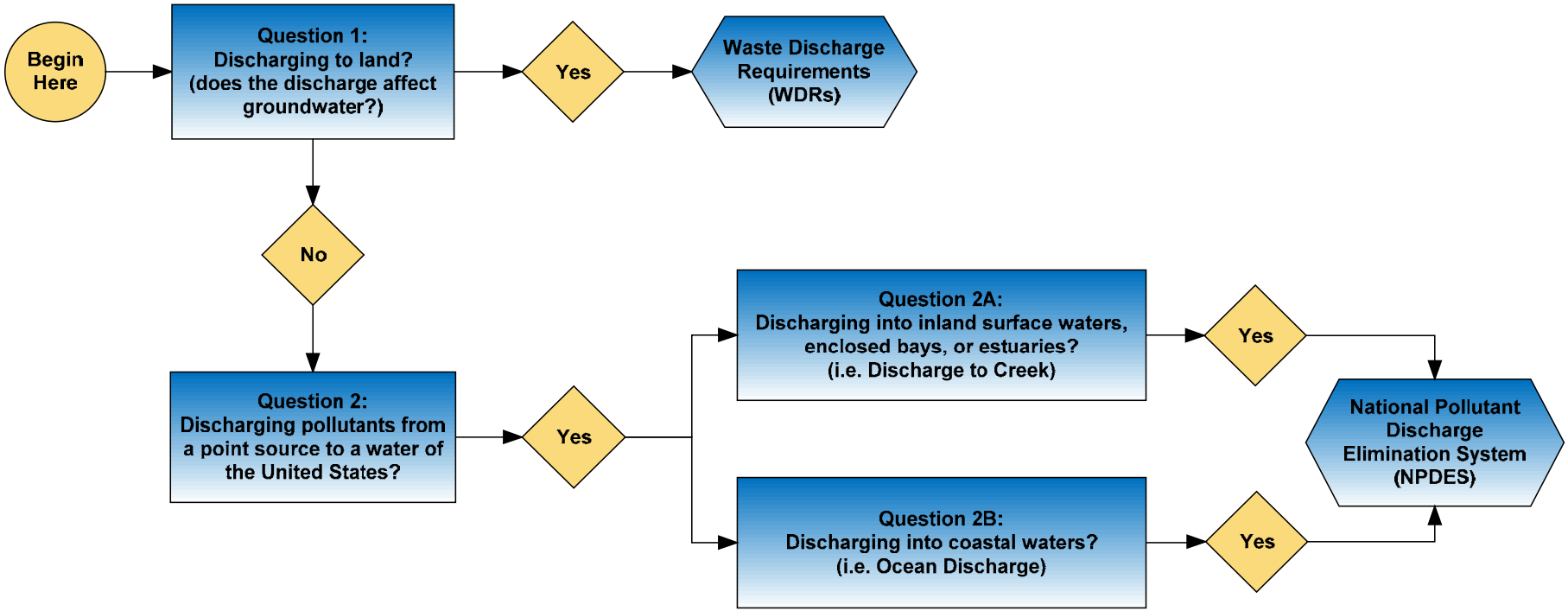
Place and Purpose of Use' and is a required term and condition of the Biological Opinion issued by NOAA Fisheries. SLO and several other agencies, including DFG and NMFS, have completed studies on the creek examining habitat and the abundance of federally threatened anadromous steelhead (*Oncorhynchus mykiss*). A study completed for SLO in 2004 as part of their Water Reuse Project found steelhead in greater abundance than was observed in previous surveys. The results of this study supported an increase in the dedication of a minimum discharge to San Luis Obispo Creek from 1.7 cfs to 2.5 cfs for in-stream beneficial uses, in-stream habitat uses in particular. Consequently, SLO cannot fully utilize the reclaimed water generated as part of the Water Reuse Project.

Attachment 1: Permit Application Procedures

CATEGORIES OF PERMITS

Discharges can be generally divided into the discharge of pollutants to surface waters or other types of discharges (i.e. waste discharges to land or discharges that affect groundwater). Discharges to surface waters are regulated by permits issued under the National Pollutant Discharge Elimination System (NPDES) program while discharges of other types are permitted through Waste Discharge Requirements (WDR) under the Porter-Cologne Act. The figure below illustrates the distinction between the two categories of permits.

"Which Permit Do I Need?"



WASTE DISCHARGE REQUIREMENTS (WDR)

Under the Porter Cologne Act, WDRs are required for types of discharges that affect groundwater, mainly the discharge of waste to land. Dischargers of pollutants must file a Report of Waste Discharge (ROWD) with the Regional Water Board to apply for Waste Discharge Requirements (WDRs) for these types of discharges. The application process for a WDR is discussed in this section.

Required Information

Information that is required during the application process with a submittal of a ROWD for WDRs includes, but is not limited to, the following: [15]

- Facility information: the names, addresses, and telephone numbers of the facility owner(s), facility operator(s), and the owner(s) of the land;
- Reason for filing, such as whether the applicant proposes to change an existing discharge or create a new one;
- Location of the facility and discharge point, including the Assessor's Parcel Number(s) as well as the latitude and longitude;
- Description of the discharge by type and a complete characterization
    - a complete characterization includes, but is not limited to, design and actual flows, water supply, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods
- Site map, identifying the location of the facility;
- Planning information such as flood protection, erosion control, surface water control, and spill plan;
- Information and documents pertaining to the California Environmental Quality Act (CEQA), including the CEQA document, Environmental Impact Report, or Negative Declaration, if applicable; and
- Certification by the owner of the facility or the operator of the facility.

Application Process

The entire process for developing and adopting the requirements normally takes about three months.[16] The steps to obtain WDRs are:

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[15] California Regional Water Quality Control Board, Central Coast Region. *Wastewater Permitting* http://www.waterboards.ca.gov/centralcoast/publications_forms/forms/docs/form_200.pdf

[16] State Water Resources Control Board, Central Valley Region. *National Pollutant Discharge Elimination System (NPDES) - Individual Permits Information*. http://www.waterboards.ca.gov/water_issues/programs/npdes/individual_permits.shtml

i. File the Report of Waste Discharge (Form 200) with the necessary supplemental information with the Regional Water Board at least 120 days before beginning to discharge waste.
ii. Regional Water Board staff reviews the application for completeness and may request additional information.
iii. Once the application is complete, Regional Water Board staff determines whether to propose adoption of the WDRs, prohibit the discharge, or waive the WDRs.
iv. If WDRs are proposed, staff prepares draft WDRs and distributes them to persons and public agencies with known interest in the project for a minimum 30 day comment period. Staff may modify the proposed WDRs based upon comments received from the discharger and interested parties.
v. The Regional Board holds a public hearing with at least a 30 day public notification. The Regional Water Board may adopt the proposed WDRs or modify and adopt them at the public hearing by majority vote.

NATIONAL POLLUTANT DISCHARGER ELIMINATION SYSTEM

As authorized by the CWA, the NPDES program protects water quality by regulating point sources that discharge pollutants directly into the waters of the United States, such as a lake, river, or ocean.

An individual NPDES permit is a permit specifically tailored to an individual facility. After receipt of a complete application, the permitting authority develops a permit for a particular facility based on the information contained in the application (e.g., type of activity, nature of discharge, receiving water quality). The permitting authority issues the permit to the facility for an effective period not to exceed five years. The discharger must reapply at least 180 days prior to the expiration date. The Regional Water Boards issue most of the individual permits in California while the State Water Board issues general permits that apply statewide and individual permits on a few occasions.

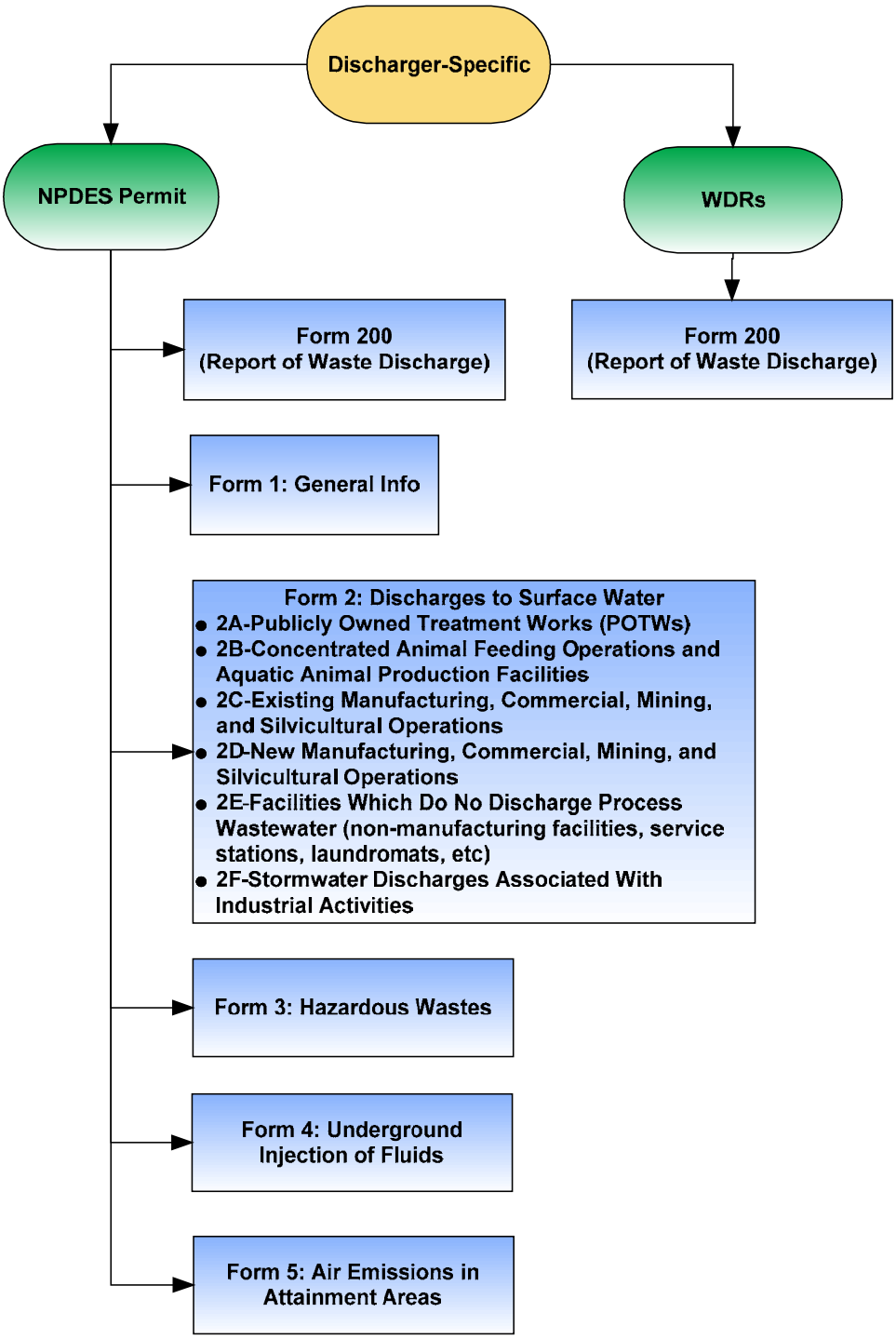
Required Information

Submittal of an ROWD begins the application process for both WDRs and NPDES permits.[17] In addition to submitting the ROWD required information detailed in Section 2.1, a discharger applying for an NPDES permit must provide the following information:

- Site map identifying the surface water into which the discharge is proposed; and
- In addition, the discharger may be required to complete one or more of the following Federal NPDES permit application forms: Form 1, 2A, 2B, 2C, 2D, 2E, 2F, 3, 4, 5, Short Form A, and Standard Form A (see figure below).

[17] California Regional Water Quality Control Board, Central Coast Region. *Wastewater Permitting* http://www.waterboards.ca.gov/centralcoast/publications_forms/forms/docs/form_200.pdf

"Which Forms Do I Need?"[18]



[18] California Regional Water Quality Control Board, Central Valley Region. "Do I Need a Permit-What Forms Do I Need?" *Water Boards*. Last updated 1/02/2013.

APPLICATION PROCESS

The process for application review and permit issuance by the Regional Water Board takes approximately six months, but may take longer depending upon the nature of the discharge. The typical steps to obtain an NPDES permit are:

i. File Form 200 and the appropriate federal NPDES application forms with the Regional Board. Anyone proposing to discharge must file a complete application at least 180 days before beginning the activity.

ii. Regional Board staff reviews the application for completeness and may request additional information

iii. Once the application is determined to be complete, Regional Board staff forwards it to the US Environmental Protection Agency (USEPA) within 15 days. USEPA has 30 days to review the application for completeness and to request additional information from the discharger. After the request for additional information is met, USEPA has 30 days to forward comments to the Regional Board.

iv. Regional Board staff determines if they should issue the NPDES permit or prohibit the discharge. If a permit should be issued, Regional Board staff prepares a proposed permit and forwards a copy to USEPA for review.

v. USEPA review the application and has 30 days to object or submit comments to the Regional Board. USEPA may request an additional 60 days to review the proposed permit.

vi. Following USEPA's review, Regional Board staff prepares a "Notice of Public Hearing" and mails it to the discharger with instructions for circulation. Regional Board staff also mails the public notice and proposed permit to persons and public agencies with known interest in the project. Regional Board staff may modify the proposed permit prior to the public hearing based on comments received from the discharger and interested parties.

vii. The discharger must publish the notice for one day and submit proof of having complied with the instructions to the Regional Board within 15 days after the posting or publication.

viii. The Regional Board holds a public hearing with at least 30 day public notification. The Regional Board may adopt the proposed permit or modify it and adopt it at the public hearing by majority vote. USEPA has 10 days to object to the adopted permit, and the objection must be satisfied before the permit becomes effective.

Attachment 2: Beneficial Uses of Potential Receiving Waters and Applicable Water Quality Objectives

Water Quality Objectives that Pertain to the Ocean Outfall (Estero Bay)

The beneficial uses of selected coastal waters in Region 3 are provided in Table 2-2 of the Basin Plan. The existing ocean outfall discharges into Estero Bay. The beneficial uses assigned to Estero Bay are as follows:

REC1	Water Contact Recreation
REC2	Non-Contact Water Recreation
SHELL	Shellfish Harvesting
IND	Industrial Service Supply
NAV	Navigation
MAR	Marine Habitat
COMM	Commercial and Sport Fishing
RARE	Rare, Threatened, or Endangered Species
WILD	Wildlife Habitat
MIGR	Migration of Aquatic Organisms

Ocean Plan Objectives. The Basin Plan assigns all current and future provisions of the Ocean Plan and the Thermal Plan[19] to all open coastal waters in their jurisdiction. Consequently the majority of the water quality objectives that governs discharges to Estero Bay are contained in the Ocean Plan. With the exception of REC1, REC2, and SHELL, water quality objectives in the Ocean Plan are not explicitly assigned to the beneficial uses listed above. The constituent classes addressed by the Ocean Plan are listed below.

<u>Physical Characteristics (narrative objectives)</u>

- Floating particulates[20]
- Oil and Grease[5]
- Light
- Deposition of inert solids

<u>Chemical Characteristics (narrative objectives)</u>

- DO, pH[5], dissolved sulfide (allowable change from natural conditions)

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[19] The Thermal Plan is not addressed in this memorandum.

[20] Section III. *Program of Implementation* of the Ocean Plan assigns numeric effluent limits for POTWs for Grease & Oil, Settleable Solids, Turbidity, and pH.

- Sediment quality (several metals and organics, ammonia, toxicity, radioactivity)
- Nutrients (disallows "objectional aquatic growths" or degradation of indigenous biota)
- Protection of Marine Aquatic Life[21] (numeric objectives)
    - Inorganics (arsenic, cadmium, chromium, copper, lead, nickel, selenium, silver, zinc, cyanide, total chlorine residual)
    - Ammonia
    - Toxicity
    - Organic compounds (5 constituents)
    - Radioactivity
- Protection of Human Health[22] (numeric objectives)
    - Noncarcinogens (20 constituents)
    - Carcinogens (42 constituents)

<u>Biological Characteristics (narrative objectives)</u>

- Three objectives addressing degradation of marine communities and quality of fish and shellfish for human consumption)

<u>Radioactivity (narrative objective)</u>

Basin Plan Objectives for Ocean Water. The Basin Plan assigns objectives for dissolved oxygen, pH and radioactivity to all ocean waters that differ from those in the Ocean Plan. In addition, the Basin Plan identifies specific numeric objectives for the MAR and SHELL beneficial uses.

<u>Objectives for all Ocean Waters</u>

- DO (numeric range)
- pH (numeric range)
- Radioactivity (narrative objective)

<u>Objectives for MAR</u>

- pH (allowable range)
- DO (numeric threshold)
- Metals (numeric objectives for 7 metals)

<u>Objectives for SHELL</u>

- Chromium (numeric objective)
- Bacteria (numeric objectives for total coliform)

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[21] Expressed as 6-month medians, daily maxima, and instantaneous maxima

[22] Expressed as 30-day averages

Water Quality Objectives that Pertain to Creek Discharge

Beneficial uses for inland surface waters in Region 3 are provided in Table 2-1 of the Basin Plan, and are tabulated below. The beneficial uses assigned to Chorro Creek and Morro Creek are slightly different. The EST use is assigned to Morro Creek, but not Chorro Creek. It is not clear why the EST use is assigned to Morro Creek as there is no apparent estuarine habitat at the mouth of Morro Creek. Although Chorro Creek itself is not assigned the EST beneficial use, discharges to Chorro Creek would be evaluated with respect to their potential downstream effects on Morro Bay Estuary. This apparent disconnect could be discussed with Regional Board staff if one of these discharge scenarios were to be implemented. The BIOL use is assigned to Chorro Creek, but not Morro Creek.

Beneficial Uses Assigned to Morro and Chorro Creeks in the Region 3 Basin Plan

USE		Morro Creek	Chorro Creek
REC1	Water Contact Recreation	X	X
REC2	Non-Contact Water Recreation	X	X
MUN	Municipal and Domestic Supply	X	X
AGR	Agricultural Supply	X	X
COMM	Commercial and Sport Fishing	X	X
RARE	Rare, Threatened, or Endangered Species	X	X
COLD	Cold Freshwater Habitat	X	X
WARM	Warm Freshwater Habitat	X	X
SPWN	Spawning, Reproduction, and/or Early Development (Fish)	X	X
MIGR	Migration of Aquatic Organisms	X	X
WILD	Wildlife Habitat	X	X
FRESH	Freshwater Replenishment	X	X
GWR	Ground Water Recharge	X	X
EST	Estuarine Habitat	X	
BIOL	Preservation of Biological Habitats of Special Significance		X

California Toxics Rule (CTR). Numeric objectives for several dozen "Priority Pollutants," that apply to all inland waters, enclosed bays, and estuaries in California, were promulgated by USEPA in 2000 in the CTR[23]. CTR criteria are divided into several categories reflecting water quality required to avoid (1) acute and chronic toxicity for aquatic organisms, and (2) human health impacts from consumption of water and/or aquatic organisms; separate aquatic life criteria were developed for freshwater (streams, lakes) and salt water (enclosed bays and estuaries). The categories of criteria in the CTR that pertain to *freshwater with the MUN use* are pertinent to discharges to Morro Creek or Chorro Creek and are as follows:

- Freshwater Aquatic Life: Acute (32 constituents)

[23] Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule Federal Register / Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations. Adding Section 131.38 to 40 CFR

- Freshwater Aquatic Life: Chronic (30 constituents)
- Human Health: Consumption of Water & Organisms (90 constituents)

CTR criteria are implemented using the procedures described in the 2005 Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, also know as the State Implementation Policy (SIP). The SIP addresses matters such as monitoring requirements, test procedures and other compliance determinations, compliance schedules, water effect ratios (WER), metal translators, dilution and mixing zones, and derivation of effluent limits.

Basin Plan Objectives. The Basin Plan assigns Title 22 drinking water standards to all surface waters with the MUN use. Consequently discharges to either Morro Creek or Chorro Creek will be evaluated with regard to whether they cause exceedances of the Maximum Concentration Limits (MCLs) from Title 22 in receiving water. In addition, the Basin Plan assigns three other categories of objectives that are pertinent to discharges to one or both of the creeks: (1) general objectives that apply to all inland waters, (2) specific objectives for several other beneficial uses (AGR, REC1, REC2, COLD, WARM, SPWN), and (3) surface water objectives for salts that apply specifically to Chorro Creek. These Basin Plan objectives are outlined below.

<u>General Objectives</u>

- Color (allowable change from natural)
- Narrative objectives (prohibiting nuisance or adverse effect on beneficial uses)
    - Taste and Odors, Floating material, Suspended matter, Settleable Material, Biostimulatory Substances, Suspended Sediment
    - Temperature (narrative applies only to inland surface water)
    - Toxicity
    - Pesticides (narrative, except that total OC pesticides must not be detectable)
- pH (allowable range)
- Dissolved oxygen (numeric limit)
- Unionized ammonia (numeric limit)
- Other organics (numeric limits for methylene blue activated substances, phenols, PCBs and phthalate esters)

<u>Objectives for MUN</u>

- pH (allowable range)
- Title 22 Primary and Secondary Maximum Concentration Limits (MCL)
- Phenol (numeric limit)

<u>Objectives for AGR</u>

- pH (allowable range)
- Dissolved oxygen (numeric limit)

- Irrigation Supply (numeric limits for 18 inorganics)
- Livestock Watering (numeric limits for 16 inorganics)

Objectives for REC1 and REC2

- pH (allowable range)
- Fecal coliform (numeric limits)

Objectives for COLD and WARM

- pH
- Dissolved oxygen (numeric limit)
- Temperature (allowable change from natural)
- Toxic metals (cadmium, chromium, copper, lead, mercury, nickel, zinc)

Objectives for SPWN

- Cadmium (numeric limit)
- Dissolved oxygen (numeric limit)

Surface Water in Chorro Creek

- TDS, Cl, SO4, B, Na (annual means)

Water Quality Objectives that Pertain to Groundwater

Discharge to percolation ponds would be considered by the Regional Board as a discharge to groundwater. Table 2-3 and Figure 2-2 in the Basin Plan identify the groundwater basins in Region 3. Morro Creek is in the Morro Valley Basin (Basin 3-41). Chorro Creek is in the Chorro Valley Basin (Basin 3-42). The beneficial uses assigned to *all groundwater* in Region 3 (except to the Soda Lake Sub-basin) are as follows[24]:

MUN	Municipal and Domestic Supply
AGR	Agricultural Supply
IND	Industrial Service Supply

In addition to the MUN and AGR objectives, the Basin Plan assigns objectives for salts and nitrogen (*total nitrogen*, not nitrate) to selected groundwater basins in the Central Coast Region; the Chorro Valley Basin is one of these basins. Although at the time of this writing, discharge to percolation ponds in the Chorro Valley Basin was not being considered; the groundwater objectives for the Chorro Valley Basin are included in the list below.

Objectives for MUN (for groundwater)

[24] The Basin Plan does not include a table assigning beneficial uses to individual groundwater basins (as it does for many coastal and inland waters). Instead, at the beginning of Chapter 2, the Basin Plan indicates in a narrative that all groundwater in Region 3 is suitable for the MUN, AGR, and IND uses.

- Bacteria (7-day median for coliform bacteria)
- Title 22 Primary and Secondary Maximum Concentration Limits (MCL)

Objectives for AGR

- pH (allowable range)
- Dissolved Oxygen (numeric limit)
- Irrigation Supply (numeric limits for 18 inorganics)
- Livestock Watering (numeric limits for 16 inorganics, including for "Nitrate+Nitrite" and "Nitrite")[25]

Objectives for Chorro Valley Basin

- TDS, Cl, SO4, B, Na, N (numeric limits, medians based on "data averages")

[25] The Livestock Watering limits in Table 3-4 of the Basin Plan for "Nitrate+Nitrite" and for "Nitrite" are 100 mg/L and 10 mg/L, respectively.

Attachment 3: Effluent Water Quality Evaluation

Effluent water quality was compared to water quality objectives for each type of receiving water (surface water, ocean, percolation ponds) to determine which constituents would have effluent limits in each type of discharge permit. An exceedance would mean that an effluent limit would be required. For discharges to Chorro or Morro Creek, effluent limits would be very similar to the water quality objective because there would be no dilution available. However, effluent limits for the Ocean discharge would be much higher than the water quality objectives due to a dilution factor of at least 133:1 being applied.

DISCHARGE TO SURFACE WATER

Both Chorro Creek and Morro Creek are assigned the MUN use, so Title 22 MCLs were included in the suite of objectives for RPA. Concentrations of ten constituents in effluent exceeded the lowest applicable objective. Hardness was assumed to be 150 mg/L.

Comparison of Effluent Data with Water Quality Objectives Pertinent to Discharges to Creek

			Basin Plan						Title 22	CTR[a]				
				Table 3.4										
Constituent	Units	Detected Effluent Maximum	MUN	Irrig Supply	Live-stock	WARM & COLD	SPWN	Chorro Creek	MCL	Acute	Chronic	HH	Lowest Objective	Exceeds
Constituents with concentrations likely to change based on the plant design/upgrades:														
Ammonia (as N)	mg/L	ND[b]	0.03	-	-	-	-	-	-	-	-	-	0.025	Basin Plan MUN (unionized)
Nitrate + Nitrite (as N)	mg/L	10[b]	-	-	100	-	-	-	10	-	-	-	10	MCL
Constituents with concentrations that may incidentally change due to upgrades:														
Antimony	µg/L	11	-	-	-	-	-	-	6	-	-	14	6	MCL	X
Arsenic, Total	µg/L	1.5	50	100	200	-	-	-	10	340	150	-	10	MCL	
Beryllium	µg/L	1.2	-	100	-	-	-	-	4	-	-	-	4	MCL	
Cadmium, Total	µg/L	0.64	10	10	50	30	3	-	5	7.1	3.4	-	3	SPWN[c]	
Chromium III, Total	µg/L	1.8	-	100	1,000	-	-	-	50	2,420	289	-	50	MCL	
Chromium Total	µg/L	2.6	50	100	1,000	50	-	-	50	2,420	289	-	50	MCL	

Constituent	Units	Detected Effluent Maximum	Basin Plan						Title 22	CTR[a]			Lowest Objective		Exceeds
				Table 3.4											
			MUN	Irrig Supply	Live-stock	WARM & COLD	SPWN	Chorro Creek	MCL	Acute	Chronic	HH			
Chromium VI, Total	µg/L	2.6	-	100	1,000	-	-	-	10	16	11	-	10	MCL	
Copper, Total	µg/L	22	-	200	500	30	-	-	1,300	21	13	1,300	13	CTR Chronic	X
Cyanide	µg/L	94	-	-	-	-	-	-	150	22	5.2	700	5.2	CTR Chronic	X
Lead, Total	µg/L	1.8	50	5,000	100	30	-	-	15	137	5.3		5.3	CTR Chronic	
Mercury	µg/L	0.088	2	-	10	0.2	-	-	2	-	-	0.05	0.05	CTR HH	X
Nickel, Total	µg/L	4.3	-	200	-	400	-	-	100	661	74	610	74	CTR Chronic	
Selenium, Dissolved	µg/L	2.7	10	20	50	-	-	-	50	-	5.0	-	5	CTR Chronic	
Selenium, Total	µg/L	2.7	10	20	50	-	-	-	50	-	-	-	10	MUN	
Silver, Total	µg/L	4.6	50	-	-	-	-	-	100	8.2	-	-	8.2	CTR Acute	
Zinc, Total	µg/L	71	-	2,000	25,000	200	-	-	5,000	169	169	-	169	CTR Chronic[d]	
2,3,7,8-TCDD (dioxin)	µg/L	1.8E-07	-	-	-	-	-	-	3E-05	-	-	1.3E-08	1.3E-08	CTR HH	X
Bis(2-ethylhexyl) Phthalate	µg/L	8.2	4	-	-	-	-	-	4	-	-	1.8	1.8	CTR HH	X
Toluene	µg/L	0.28	-	-	-	-	-	-	150	-	-	6,800	150	Primary MCL	
Halomethanes[e]	µg/L	0.25	-	-	-	-	-	-	80	-	-	-	80	Primary MCL	
Radionuclides – gross alpha	pCi/L	3.79	-	-	-	-	-	-	15	-	-	-	15	Primary MCL	

Constituent	Units	Detected Effluent Maximum	Basin Plan						Title 22	CTR[a]			Lowest Objective		Exceeds
				Table 3.4											
			MUN	Irrig Supply	Live-stock	WARM & COLD	SPWN	Chorro Creek	MCL	Acute	Chronic	HH			
Radionuclides – gross beta	pCi/L	19	-	-	-	-	-	-	[f]	-	-	-	[f]	Primary MCL	
pH	SU	7.3-7.9	6.5-8.5						-	-	-	-	6.5-8.5	Basin Plan	[g]
Constituents with concentrations that are not expected to change due to plant upgrades:															
Boron	mg/L	0.4[h]	-	0.75	5	-	-	0.2	-	-	-	-	0.2	Chorro Ck	X
Chloride	mg/L	369[h]	-	-	-	-	-	50	250	-	-	-	50	Chorro Ck	X
Sodium	mg/L	223[h]	-	-	-	-	-	50	-	-	-	-	50	Chorro Ck	X
Sulfate	mg/L	-	-	-	-	-	-	50	250	-	-	-	50	Chorro Ck	
TDS	mg/L	1,077[i]	-	-	-	-	-	500	500	-	-	-	500	Chorro Ck	X

[a] CTR metals criteria for cadmium, chromium III, copper, lead, nickel, silver, and zinc were calculated assuming a creek hardness of 150 mg/L. This is greater than the Basin Plan limit for "soft" water (100 mg/L), therefore "hard" Basin Plan objectives were applied.

[b] Adjusted based on anticipated future effluent quality from new WRF (Tertiary-2.2 for unrestricted reuse per Title 22 Regulations).

[c] Cadmium in effluent would exceed the "soft" Basin Plan objective for SPWN of 0.4 µg/L.

[d] Zinc in effluent would exceed the "soft" Basin Plan objective for WARM & COLD of 4 µg/L.

[e] Halomethanes are defined in the Ocean Plan as the sum of bromoform, methyl bromide (bromomethane), and methyl chloride (chloromethane). However, the MCL of 80 µg/L is for trihalomethanes, defined in Title 22 as the sum of bromoform, chloroform, dibromochloromethane, and dichlorobromomethane.

[f] The Title 22 primary MCL for radionuclides – gross beta is 4 mrem/yr, while the effluent data are in units of pCi/L. The individual emitters must be converted from pCi/L to mrem/yr before this comparison can be made.

[g] pH levels are currently very stable, however this could change under the new treatment system.

[h] Data are from six 24-hour composite samples taken between February 8, 2012 and February 14, 2012 (*2012 Recycled Water Feasibility Study*, Dudek, Draft March 9, 2012).

[i] Data from daily conductivity/TDS monitoring were provided from July 2012 through July 2013.

DISCHARGE TO OCEAN

As noted above, data are compared to water quality objectives to determine if an effluent limit would be warranted. Effluent limits would actually be much greater than the objectives for this scenario since a dilution factor of 133:1 would be included in the effluent limit calculation.

Comparison of Effluent Data with Water Quality Objectives in the Ocean Plan.

Constituent	Units	Detected Effluent Maximum	Chronic Toxicity Estimate	Human Health 30-Day Average	Marine Life 6-Month Median	Daily Max	Instant. Max	Lowest Objective		RP[a]
Constituents with concentrations likely to change based on the plant design/upgrades:										
Ammonia (as N)	mg/L	ND[b]	4	-	0.6	2.4	6	0.6	Marine Life 6-Month Med.	[c]
Total Coliform	MPN/ 100mL	2.2[b]	-	-	-	-	10,000	1,000	REC1 30-day 5-sample average	[c]
Chronic Toxicity	TUc	10	-	-	-	1		1	Daily Max	
Constituents with concentrations that may incidentally change due to upgrades:										
Antimony	µg/L	11	-	1,200	-	-	-	1,200	HH 30-Day Average	
Arsenic, Total	µg/L	1.5	19	-	8	32	80	8	Marine Life 6-Month Med.	
Beryllium	µg/L	1.2	-	0.033	-	-	-	0.033	HH 30-Day Average	
Cadmium, Total	µg/L	0.64	8	-	1	4	10	1	Marine Life 6-Month Med.	
Chromium III, Total	µg/L	1.8	-	190,000	-	-	-	190,000	HH 30-Day Average	
Chromium VI, Total	µg/L	2.6	18	-	2	8	20	2	Marine Life 6-Month Med.	
Copper, Total	µg/L	22	5	-	3	12	30	3	Marine Life 6-Month Med.	X
Cyanide	µg/L	94	10	-	1	4	10	1	Marine Life 6-Month Med.	X
Lead, Total	µg/L	1.8	22	-	2	8	20	2	Marine Life 6-Month Med.	
Mercury	µg/L	0.088	0.4	-	0.04	0.16	0.4	0.04	Marine Life 6-Month Med.	
Nickel, Total	µg/L	4.3	48	-	5	20	50	5	Marine Life 6-Month Med.	
Selenium	µg/L	2.7	-	-	15	60	150	15	Marine Life 6-Month Med.	
Silver, Total	µg/L	4.6	3	-	0.7	2.8	7	0.7	Marine Life 6-Month Med.	

Constituent	Units	Detected Effluent Maximum	Chronic Toxicity Estimate	Human Health 30-Day Average	Marine Life 6-Month Median	Daily Max	Instant. Max	Lowest Objective		RP[a]
Zinc, Total	µg/L	71	51	-	20	80	200	20	Marine Life 6-Month Med.	
2,3,7,8-TCDD (dioxin)	µg/L	1.8E-07	-	3.9E-09	-	-	-	3.9E-09	HH 30-Day Average	X
Bis(2-ethylhexyl) Phthalate	µg/L	8.2	-	3.5	-	-	-	3.5	HH 30-Day Average	
Chloroform	µg/L	0.61	-	130	-	-	-	130	HH 30-Day Average	
Non-Chlorinated Phenolics[d]	µg/L	3.3	-	-	30	120	300	30	Marine Life 6-Month Med.	
Toluene	µg/L	0.28	-	85000	-	-	-	85,000	HH 30-Day Average	
Halomethanes[e]	µg/L	0.25	-	-	-	-	-	130	REC1 30-day 5-sample average	

[a] The reasonable potential analysis was performed following the Ocean Plan method.

[b] Adjusted based on anticipated future effluent quality from new WRF (Tertiary-2.2 for unrestricted reuse per Title 22 Regulations). The current effluent maximum is 900 MPN/100mL with a 7-day median maximum of 50 MPN/100mL. These levels are expected to diminish with the treatment plant upgrades.

[c] The maximum concentrations are insufficient to perform the Ocean Plan RPA. Individual data points are necessary.

[d] Non-chlorinated phenolics include 2,4-Dimethylphenol, 4,6-Dinitro-2-Methylphenol, 2,4-Dinitrophenol, 2-Nitrophenol, 4-Nitrophenol, and Phenol.

[e] Halomethanes are defined in the Ocean Plan as the sum of bromoform, methyl bromide (bromomethane), and methyl chloride (chloromethane).

Basin Plan objectives for ocean water (MAR and SHELL uses) were compared to effluent data with and without the Ocean Plan RPA procedure. The Basin Plan objective for cadmium was lower than that in the Ocean Plan, and exceeded by the effluent maximum concentration, however there was no reasonable potential for cadmium following the Ocean Plan method. It is unclear whether the metal nickel is appropriate to compare with a "nickel salts" objective from the Basin Plan. None of the Basin Plan objectives for MAR and SHELL uses would trigger reasonable potential following the Ocean Plan method.

Comparison of Effluent Data with Basin Plan Objectives for the Ocean

Constituent	Units	Detected Effluent Maximum	Basin Plan MAR use	Basin Plan SHELL use	Notes	RP[a]
Constituents with concentrations likely to change based on the plant design/upgrades:						
Total Coliform	MPN/ 100mL	2.2[b]	-	70	Lower than Ocean Plan	[c]
Constituents with concentrations that may incidentally change due to upgrades:						
Cadmium, Total	µg/L	0.64	0.2	-	Lower than Ocean Plan	
Chromium Total	µg/L	1.8	50	10		
Copper, Total	µg/L	22	10	-		
Lead, Total	µg/L	1.8	10	-		
Mercury	µg/L	0.088	0.1	-		
Nickel salts	µg/L	(4.3 nickel)	2	-		
Zinc, Total	µg/L	71	20	-		

[a] The reasonable potential analysis was performed following the Ocean Plan method.
[b] Adjusted based on anticipated future effluent quality from new WRF (Tertiary-2.2 for unrestricted reuse per Title 22 Regulations).
[c] The maximum concentration is insufficient to perform the Ocean Plan RPA. Individual data points are necessary.

DISCHARGE TO LAND

There were no effluent data to compare to the Basin Plan objectives for Chorro Valley Groundwater Basin (boron, nitrogen, TDS, sulfate, chloride, sodium). However, the maximum sum of ammonia-N and nitrate-N in the effluent dataset of 24 mg N/L (occurring in January 2011) would exceed the Basin Plan objective for nitrogen.

Comparison of Effluent Data for Detected Constituents with Objectives Pertinent to Discharge to Groundwater (via Land)

Constituent	Units	Detected Effluent Maximum	Basin Plan			Title 22	Lowest Objective		Exceeds
			Chorro Ground	Irrigation Supply	Livestock Watering	MCL			
Constituents with concentrations likely to change based on the plant design/upgrades:									
Nitrogen	mg/L	10[a]	5	-	-	-	5	Basin Plan Chorro Groundwater	X
Nitrate + Nitrite (as N)	mg/L	10[a]	-	-	100	10	10	Primary MCL	
Total Coliform	MPN/100mL	2.2[a]	-	-	-	-	2.2	Basin Plan MUN 7-day median	
Constituents with concentrations that may inciidentally change due to upgrades:									
Antimony	µg/L	11	-	-	-	6	6	Primary MCL	X
Arsenic, Total	µg/L	1.5	-	100	200	10	10	Primary MCL	
Beryllium	µg/L	1.2	-	100	-	4	4	Primary MCL	
Cadmium, Total	µg/L	0.64	-	10	50	5	5	Primary MCL	
Chromium III, Total	µg/L	1.8	-	100	1,000	50	50	Primary MCL	
Chromium VI, Total	µg/L	2.6	-	100	1,000	10	10	Primary MCL	
Copper, Total	µg/L	22	-	200	500	1,300	200	Irrigation Supply	
Cyanide	µg/L	94	-	-	-	150	150	Primary MCL	
Lead, Total	µg/L	1.8	-	5,000	100	15	15	Primary MCL	
Mercury	µg/L	0.088	-	-	10	2	2	Primary MCL	
Nickel, Total	µg/L	4.3	-	200	-	100	100	Primary MCL	
Selenium	µg/L	2.7	-	20	50	50	20	Irrigation Supply	
Silver, Total	µg/L	4.6	-	-	-	100	100	Secondary MCL	
Zinc, Total	µg/L	71	-	2,000	25,000	5,000	2,000	Irrigation Supply	

Constituent	Units	Detected Effluent Maximum	Basin Plan			Title 22	Lowest Objective		Exceeds
			Chorro Ground	Irrigation Supply	Livestock Watering	MCL			
2,3,7,8-TCDD (dioxin)	µg/L	1.8E-07	-	-	-	3E-05	3E-05	Primary MCL	
Bis(2-ethylhexyl) Phthalate	µg/L	8.2	-	-	-	4	4	Primary MCL	X
Toluene	µg/L	0.28	-	-	-	150	150	Primary MCL	
Halomethanes[b]	µg/L	0.25	-	-	-	80	80	Primary MCL	
Constituents with concentrations that are not expected to change due to plant upgrades:									
Boron	mg/L	0.4[c]	0.2	0.75	5	-	0.2	Basin Plan Chorro Groundwater	X
Chloride	mg/L	369[c]	250	-	-	250	250	Basin Plan Chorro Groundwater	X
Sodium	mg/L	223[c]	50	-	-	-	50	Basin Plan Chorro Groundwater	X
Sulfate	mg/L	-	100	-	-	250	100	Basin Plan Chorro Groundwater	
TDS	mg/L	1,077[d]	1,000	-	-	500	500	Secondary MCL	X

[a] Adjusted based on anticipated future effluent quality from new WRF (Tertiary-2.2 for unrestricted reuse per Title 22 Regulations). The current effluent maximum is 900 MPN/100mL with a 7-day median maximum of 50 MPN/100mL. These levels are expected to diminish with the treatment plant upgrades.

[b] Halomethanes are defined in the Ocean Plan as the sum of bromoform, methyl bromide (bromomethane), and methyl chloride (chloromethane). However, the MCL of 80 µg/L is for trihalomethanes, defined in Title 22 as the sum of bromoform, chloroform, chlorodibromomethane, and dichlorobromomethane.

[c] Data are from six 24-hour composite samples taken between February 8, 2012 and February 14, 2012 (*2012 Recycled Water Feasibility Study*, Dudek, Draft March 9, 2012).

[d] Data from daily conductivity/TDS monitoring were provided from July 2012 through July 2013.

NON-DETECTED CONSTITUENTS IN EFFLUENT

Constituents for which all Sample Results were Non Detects

Thallium	Bis(2-chloroethyl)Ether	gamma-BHC (Lindane)
1,1,1-Trichloroethane (1,1,1-TCA)	Bis(2-chloroisopropyl)Ether	Heptachlor
1,1,2,2-Tetrachloroethane	Carbon tetrachloride	Heptachlor epoxide
1,1,2-Trichloroethane (1,1,2-TCA)	Chlordanes (total)[a]	Hexachlorobenzene
1,1-Dichloroethylene (1,1-DCE)	Chlorinated Phenolics[b]	Hexachlorobutadiene
1,2-Dichloroethane (1,2-DCA)	Chlorobenzene	Hexachlorocyclopentadiene
1,2-Diphenylhydrazine	Chlorodibromomethane	Hexachloroethane
1,3-Dichloropropene	DDTs (total)[c]	Isophorone
1,4-Dichlorobenzene (p-DCB)	Dichlorobenzenes[d]	Methylene Chloride
2,4,6-Trichlorophenol	Dichlorobromomethane	Nitrobenzene
2,4-Dinitrophenol	Dieldrin	N-Nitrosodimethylamine (NDMA)
2,4-Dinitrotoluene	Diethyl Phthalate	N-Nitrosodi-n-Propylamine
2-Methyl-4,6-Dinitrophenol	Dimethyl Phthalate	N-Nitrosodiphenylamine
3,3-Dichlorobenzidine	Di-n-Butyl Phthalate	PAHs (total)[e]
Acrolein	Endosulfan I	PCBs (total)[f]
Acrylonitrile	Endosulfan II	Tetrachloroethylene (PCE)
Aldrin	Endosulfan Sulfate	Toxaphene
Benzene	Endrin	Tributyltin
Benzidine	Ethylbenzene	Trichloroethylene (TCE)
Bis(2-Chloroethoxy)Methane	Fluoranthene	Vinyl Chloride

[a] Total chlordanes include a-chlordane, a-chlordene, cis-nonachlor, gamma-chlordane, gamma-chlordene, oxychlordane, and trans-nonachlor.
[b] Chlorinated phenolics include 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, pentachlorophenol, and 2,4,6-trichlorophenol.
[c] DDTs includes 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT.
[d] Dichlorobenzenes includes 1,2-Dichlorobenzene and 1,3-Dichlorobenzene.
[e] PAHs includes Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(a)Pyrene, Benzo(b)fluoranthen, Benzo(g,h,i)perylene, Benzo(k)fluoranthen, Chrysene, Dibenzo(a,h)anthraces, Fluorene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene.
[f] Total PCBs include aroclors 2016, 1221, 1232, 1242, 1248, 1254, and 1260.

OBJECTIVES FOR WHICH EFFLUENT DATA WERE NOT AVAILABLE

It should be noted that not all of these constituents are required for compliance determination, and many are not commonly monitored by dischargers.

Constituents with Applicable Criteria/Objectives and No Effluent Sample Data in Semi-Annual Reports

Constituent	Drinking Water		Basin Plan					CTR	Proposed CTR	Ocean Plan
	Title 22	PHG	MUN	AGR Irrigation/ Livestock	WARM & COLD/ SPWN	Chorro Crk	SHELL			
Bacterial[a]										
Enterococcus							X			X
Inorganics										
Asbestos	X	X						X (MUN)		
Aluminum	X	X	X	X						
Barium	X	X	X							
Cobalt				X						
Fluoride	X	X		X						
Iron, dissolved	X			X						
Iron, total				X						
Lithium				X						
Manganese, dissolved	X			X						
Manganese, total				X						
Molybdenum				X						
Vanadium				X						
Arsenic, Dissolved	X	X	X	X				X[b]		X
Cadmium, Dissolved	X	X	X	X	X			X[b]		X
Chromium III, Dissolved	X			X				X (fresh) [b]		X
Chromium VI, Dissolved	X	X		X				X[b]		X
Copper, Dissolved	X	X		X	X			X[b]		X

Constituent	Drinking Water		Basin Plan					CTR	Proposed CTR	Ocean Plan
	Title 22	PHG	MUN	AGR Irrigation/ Livestock	WARM & COLD/ SPWN	Chorro Crk	SHELL			
Lead, Dissolved	X		X	X	X			X[b]		X
Nickel, Dissolved	X			X	X			X[b]		X
Silver, Dissolved			X					X[b]		X
Zinc, Dissolved				X	X			X[b]		X
Nitrogen										
Nitrate (as NO3)[c]	X		X							
Nitrite (as N)	X			X						
Nitrogen						X (ground)				
Organics										
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	X	X	X							
1,1-Dichloroethane (1,1-DCA)	X	X	X							
1,2,3-Trichloropropane	X	X								
1,2,4,5-Tetrachlorobenzene									X	
1,2,4-Trichlorobenzene	X	X							X	
1,2-Dibromo-3-chloropropane (DBCP)	X	X	X							
1,2-Dichloropropane	X	X	X					X	X	
1,2-Trans-Dichloroethylene	X							X	X	
2,4,5-TP (Silvex)	X	X	X						X	
2,4,5-Trichlorophenol									X	
2,4-Dichlorophenoxyacetic acid (2,4-D)	X	X	X						X	
2,4-Dimethylphenol[d]								X	X	
2-Chloronaphthalene								X	X	

Constituent	Drinking Water		Basin Plan					CTR	Proposed CTR	Ocean Plan
	Title 22	PHG	MUN	AGR Irrigation/ Livestock	WARM & COLD/ SPWN	Chorro Crk	SHELL			
Benzo(b)Fluoranthene								X	X	
Alachlor	X	X								
alpha-BHC								X	X	
Atrazine	X	X	X							
Bentazon	X	X	X							
beta-BHC								X	X	
Bis(2-chloromethyl)Ether									X	
Bromoform								X	X	
Butylbenzyl Phthalate								X	X	
Carbofuran	X	X	X							
cis-1,2-Dichloroethylene	X	X	X							
Dalapon	X	X								
Di(2-ethylhexyl)adipate	X	X								
Diazinon										
Dinoseb	X	X								
Diquat	X	X								
Endosulfan Sulfate								X	X	
Endothal	X	X								
Endrin Aldehyde								X	X	
Ethylene dibromide (EDB)	X	X	X							
Glyphosate	X	X	X							
MBAS	X		X							
Methoxychlor	X		X						X	
Methyl Bromide								X	X	

Constituent	Drinking Water		Basin Plan					CTR	Proposed CTR	Ocean Plan
	Title 22	PHG	MUN	AGR Irrigation/ Livestock	WARM & COLD/ SPWN	Chorro Crk	SHELL			
Methyl tertiary butyl ether (MTBE)	X									
Molinate	X		X							
Monochlorobenzene	X		X							
Oxamyl	X									
Phenol[d]			X					X	X	
Picloram	X									
Simazine	X		X							
Styrene	X									
Thiobencarb	X		X							
trans-1,2-Dichloroethylene	X		X							
Trichlorofluoromethane (Freon 11)	X		X							
Xylenes	X		X							
Radionuclides										
Radium-226 + Radium-228	X									
Strontium-90	X									
Tritium	X									
Uranium	X									
Ions										
Bromate	X	X								
Chlorite	X	X								
Perchlorate										
Sulfate	X					X				
Others										
Haloacetic Acids (five) (HAA5)	X									

Constituent	Drinking Water		Basin Plan					CTR	Proposed CTR	Ocean Plan
	Title 22	PHG	MUN	AGR Irrigation/ Livestock	WARM & COLD/ SPWN	Chorro Crk	SHELL			
Dissolved Oxygen			X							

[a] Effluent data for total coliform were collected 5 days per week, however the data were not included in the semi-annual reports used for this analysis. All total coliform was assumed to be fecal.

[b] CTR criteria is promulgated for total metals, however the dissolved metals objectives are also available.

[c] The nitrate-N sampling data suffices for nitrate compliance.

[d] Non-chlorinated phenolics monitoring was performed to comply with Ocean Plan objectives, however the CTR contains criteria for the individual constituents.

Appendix F

Initial Findings on Grants and Strategy
Kestrel Consulting, September 2014

September 15, 2014
Project: Morro Bay Water Reclamation Facility Funding Strategy

City of Morro Bay
595 Harbor Street
Morro Bay, CA 93442

Attention: Mr. Robert Livick
Public Services Director

Subject: Initial Findings on Grants and Strategy

Dear Mr. Livick:

As requested, Kestrel Consulting, Inc. conducted a review of grants and loans that may be available for planning and construction of a Water Reclamation Facility (Project) at one of two locations within San Luis Obispo County in the next 1-2 years. The goals of the Project are as follows[1]:

- Produce tertiary, disinfected wastewater in accordance with Title 22 requirements for unrestricted urban irrigation
- Distribute reclaimed wastewater for public and private landscape areas, agriculture, or groundwater recharge.
- Allow for onsite composting
- Design for energy recovery
- Design to treat contaminants of emerging concern in the future
- Design to allow for other possible municipal functions

Conceptual planning for the Project is underway and will continue into 2015. Construction could occur as soon as 2016, and the City is considering alternative project delivery options, such as design-build. To inform this effort, Kestrel was charged with addressing the following questions:

- What is the maximum amount of grants to be reasonably expected?
- What grants and loans are available now for the Project?
- Are there unique funding opportunities associated with either of the two sites?
- Does alternative project delivery pose any significant constraints on availability of grants or loans?
- What is a recommended approach to grants and strategy for Morro Bay?

Qualifications

Kestrel Consulting Inc., has assisted local governments in California with grants and loans for water, energy and environmental projects since 2000. We provide strategic planning and consultation around grants and loans, and expert assistance with funding proposals. We have secured over $43 million in state and federal grants for our clients who are primarily located in

[1] An excerpt from the Options Report (1/10/14)

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coastal counties. We have also assisted clients with loans from the Clean Water State Revolving Fund and Safe Drinking Water State Revolving Fund. Our experience is focused on funding for water infrastructure, along with environmental efforts, including watershed restoration and climate change adaptation.

- **What is the maximum amount of grants to be reasonably expected?**

The short answer is not more than 25% of the total project cost, and 10% is probably more realistic.
Almost all state and federal grants require a matching contribution. The required match may be as little as 10% of the project cost, but more commonly, a required match is 50-75% of the total project cost. Note this is not a percentage of the grant amount, but rather the total project. So for example, if you had a $50 million project and a 75% required match, the maximum grant would be $12.5 million. However, in order for a grant proposal to be competitive, it is almost always necessary to exceed the minimum match requirement. Retroactive costs, such as planning or site acquisition, often cannot count toward the match, which is usually restricted to expenditures made during the period of the grant agreement.

- **What grants and loans are available now for the Project?**

Grants
Kestrel has done a complete assessment of state and federal grant programs that could potentially contribute to planning and/or construction of the Project, and there are very few grants available. The City of Morro Bay has the good fortune to:

- Not be economically disadvantaged
- Have low unemployment
- Be too large for "rural" eligibility
- Not be in Metropolitan Water District's service area

These are all factors in being eligible for certain grants. Therefore, only the following grant programs are viable options for the Project.

FEDERAL GRANT PROGRAMS

US Bureau of Reclamation Title 16 Grant Program
The Title 16 grant program is the only federal grant of any significance that might be available for the City of Morro Bay. There are three prerequisites for the Title 16 construction grant: 1) the Project must be authorized by Congress for up to a specific dollar amount, 2) a feasibility study that meets specific requirements must be completed and approved by the Bureau, and 3) Congress must appropriate funds for the construction Project. This is a minimum three-year process.
The bad news is that many agencies are already in line for construction funding, *and* Congress has not authorized any new funding for construction projects since the Recovery Act of 2009. If Morro Bay were to be successful in steps 1, 2 and 3, then this grant program could potentially fund up to 25% of the project cost, up to $20 million. The Title 16 federal grants require a minimum 75% match.

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The Bureau must approve the feasibility study before a construction grant can be received. Having an approved feasibility study can also facilitate the appropriation by Congress.
Most years, the Bureau of Reclamation offers the WaterSMART: Title 16 Feasibility Study competitive grant program, which may contribute up to 50% of the cost of a feasibility study. These grants are capped at $150,000 and require a 50% local match. Again, the bad news is that competition for these grants is tough. In the last round (2013) there were thirty applications and only 8 were funded (26%) in the 17 state western region.

Other WaterSMART Grants

The Bureau of Reclamation offers other types of WaterSMART grants most years. The majority of these grants are less than $300,000 and they support whatever objective the Bureau is focusing on that year in the 17 western states. For example, in 2013 the focus was energy efficiency and sustainability in wastewater treatment. The Bureau awards a handful of larger WaterSMART grants each year – up to $1,500,000 – however, Morro Bay is not likely to be competitive for these based on the size of the population, demographics and location.
As Project plans solidify, the City could potentially apply for a WaterSMART grant of up to $300,000 for features of the Project that align with the Bureau's objectives and schedule for that particular year.
There are no other significant federal grants for construction available to Morro Bay.

STATE GRANT PROGRAMS

Most of California's major grant programs for water infrastructure originate from the sale of statewide water bonds, which have been approved by voters. Examples of these include the parks and water bonds, Propositions 40, 50, & 84. Funding from Propositions 40 and 50 has been completely exhausted, and Proposition 84 is 96% spent. A new statewide water bond, Proposition 1, will be on the ballot this November. The measure, upon voter approval, would enact the **Water Quality, Supply, and Infrastructure Improvement Act of 2014**. The $7.15 billion bond will include funding for several grant programs that could provide some funds toward Project construction:

- $810 million for expenditures on, and competitive grants and loans to integrated regional water management plan projects, and
- $725 million for water recycling and advanced water treatment technology projects.
- $2.7 billion for water storage projects - including underground storage, dams, reservoirs.

If the bond passes, then this funding would flow into two existing grant programs: the Department of Water Resources' (DWR) Integrated Regional Water Management Grant Program and the State Water Board's Water Recycling Facilities Grant Program. A new grant program would be established for the water storage funds. Grant guidelines would be revised or developed through a public process prescribed in the legislation. This would occur in early 2015, however, we might assume that the guidelines for the first two programs are likely to at least resemble their most recent iterations. In that case, it is realistic to expect that either one of these programs could potentially contribute $1-3 million toward construction of a water reclamation facility or storage component. If voters approve the bond in November, the soonest competitive grant programs might open would be late 2015, with awards made in the first half of 2016. That is the earliest these new funds would be available.

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The new water bond notwithstanding, the *only* state grant program that currently supports construction of water recycling facilities, and that *may* have construction funding available for the City of Morro Bay is the (Prop 84) Integrated Regional Water Management Grant Program. The Central Coast Region may still have up to $6 million available in 2015 in this program, however, DWR is currently evaluating whether to award these funds to current applicants that requested drought emergency funding. It is also unclear that the Project will be at a sufficient state of readiness to be truly competitive.

Other state grants might support innovative stormwater features or public access or recreation features that might be included in a facility master plan. But these grants would likely be in the hundreds of thousands of dollars, and really depend on the design, timing and benefits of what is proposed.

California's electric utilities are required to increase the amount of renewable energy in their portfolios, including biogas from wastewater treatment. Waste-to-energy components of the Project may be eligible for Pacific Gas and Electric's Self-Generation Incentive Program, which provides a rebate per watt produced. The amount varies on the amount of energy produced and the location of the facility. The rebate program is authorized and funded through the end of 2015.

LOANS

The Clean Water State Revolving Fund (CWSRF) loan program originates from federal funds that come to the State Water Board from the USEPA. The state administers the loan program and also contributes funds. Wastewater treatment projects are financed through CWSRF at the regular rate, which is determined at the time of the loan. The rate is typically ½ of the General Obligation bond rate. Throughout 2013 and 2014, the interest rate has been approximately 2%. The program will loan up to $50 million per project. Communities that meet the "economically disadvantaged" criteria may be eligible for a portion of the loan principal to be "forgiven". The City of Morro Bay does not meet these criteria.

Because of California's drought, recycled water projects are currently eligible for a reduced interest rate on CWSRF loans. The interest rate is approximately 1% annually, and is available for applications submitted through December 2015. It is possible to use the CWSRF loans for both planning and construction. The application process is extensive, and completed environmental documents are required for construction loans, but applications are accepted year-round. CWSRF may also be used for loan guarantees.

The California Infrastructure and Economic Development Bank (IBank) has broad authority to issue tax-exempt and taxable revenue bonds, provide financing to public agencies, provide credit enhancements, acquire or lease facilities, and leverage State and Federal funds. The IBank's current relevant programs include the Infrastructure State Revolving Fund (ISRF) Program, Exempt Facility Revenue Bond Program, Governmental Bond Program. Infrastructure loans are available in amounts ranging from $50,000 to $25,000,000, with loan terms of up to 30 years. Interest rates are set on a monthly basis and currently range from 2-5%. Financing applications are continuously accepted.

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- **Are there unique funding opportunities associated with either of the two sites?**

The short answer is "not likely" but it's too soon to tell. Much depends on the final design of the Project and if the Proposition 1 water bond is approved by voters.

The two sites now in consideration are: Site B - Morro Valley Rancho Coalina and Site D - California Men's Colony. The merits and opportunities associated with each site have been explored in the Final Options Report, and continue to be evaluated.
Generally speaking, a water reclamation facility at Site B could have a higher potential for uses of recycled water including groundwater recharge (storage). Proposition 1 includes a new competitive grant program for water storage projects. If the bond is approved, then this grant program is likely to have a preference for projects that reduce dependence on imported water. An example would be if the City of Morro Bay proposed to inject and store highly-treated recycled water in the aquifer and pump it out at a later date in-lieu of State Water Project water. With such a project and a competitive grant proposal, it is reasonable to think that the state could contribute up to 25% of the cost of construction.
A facility located at Site D might have different and potentially fewer uses for recycled water, but greater potential for cost-sharing among regional partners, as well as expanded waste to energy systems. Until this Project is defined more clearly, it is difficult to assess grants that might be site-specific.

- **Does alternative project delivery pose any significant constraints on availability of grants or loans?**

The short answer is "no."
Most state and federal grant programs for water infrastructure do not allow private companies to receive grants directly. If suitable grants were identified, then the City would be the applicant. If funds were awarded, then the City would apply the grant toward the design-build contract costs.
The following types of organizations are eligible for CWSRF Loans: cities, counties, districts, joint powers authorities, state agencies, non-profits, and private entities indirectly. If a new organization/authority is established for the purpose of supporting a regional facility, then as long as it is one of these types of organizations, it would be eligible.
According to the State Water Board's Policy for Implementing the CWSRF (May 2013), and confirmed by SWRCB staff, there are no limitations regarding alternative project delivery methods. The CWSRF may fund projects using the Design-Build process. In general the State Water Board looks at eligibility as "what is built", not "how it's built".
I-Bank Loans are available to municipalities as well as some private businesses.

What is a recommended approach to grants and strategy for Morro Bay?

- If the project schedule allows, initiate the process for Title 16 funding by meeting with your local Representative. Meet with Bureau of Reclamation officials to discuss the project relative to their objectives. Complete a Title 16 Feasibility Study. Even if the Title 16 funds are not initially available, this program may be useful for future phases of the Project.

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- Many City Councils have passed resolutions of support for Proposition 1, the Water Quality, Supply, and Infrastructure Improvement Act of 2014, to underscore the importance of this funding to local projects.
- If the Water Bond passes, it will be very important for the City to participate in development of guidelines for the key grant programs to ensure that the Project would be eligible. These meetings would occur in Sacramento in early 2015.
- Engage in the San Luis Obispo regional water management group that serves as the vehicle for Integrated Regional Water Management grants.
- Be aware of greenhouse gas emissions and energy impacts associated with different alternatives, as this is something that is evaluated and scored in almost all state funding.
- If the City would rather use a CWSRF loan than issue municipal bonds, initiate the loan application at least 9 months before funding is needed.
- Kestrel Consulting can assist with any of these steps, either in advisory capacity or more directly.

If you have any questions or need other information, please do not hesitate to call. I am looking forward to presenting this information to the City Council on October 14.

Sincerely,

KESTREL CONSULTING, INC.

Monica Reid

Monica Reid

Principal Consultant

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Things to Know About Grants for Public Works Projects

Monica Reid, Principal Consultant
Kestrel Consulting, Inc.
9/15/14

Overview of Grant Programs

Grants are generally made available by federal or state agencies for the express purpose of changing the "status quo", "standard operating procedure", or current behavior on a specific issue. Often grants are used to advance certain state or federal objectives, such as improving energy efficiency, reducing pollution or creating jobs. For example, grants may be offered for the purposes of removing an unsustainable imported water supply and replacing it with a more sustainable local or regional water supply. A few grant programs are more like "entitlements", where funding is awarded to a city or a region based on a formula that might be tied to population or demographics. Most grants, however, are won through competition. Grant proposals are scored according to certain criteria. The proposals with the highest scores win.

Some state grant programs operate with a specific funding source, such as the Environmental License Plate Fund. In this case, additional fees for car registrations are collected and deposited into a special fund which is then distributed through grants to local agencies for environmental projects. However, most state grants originate from the sale of statewide bonds, which have been approved by voters. Examples of these include the parks and water bonds, Propositions 40, 50, & 84. Funding from Prop 40 & 50 has been exhausted, Prop 84 is almost gone, and the next statewide water bond, Proposition 1 will require general voter approval in November 2014.

Grant Application Process

The process of applying for and securing a grant can take a significant amount of time. Preparing a competitive grant application can take 2-6 months depending on the complexity of the project and the information required by the grant program. Reviewing, scoring, and ranking grant proposals can take between 3-8 months, with another 1-2 months needed before final decisions are made. Another 2-4 months are needed to negotiate a final grant agreement or contract, at which time the applicant can begin work on the project. Therefore, it's not unusual for the grant application process to take between 12-18 months from start to finish.

In addition, grant programs are very competitive and the odds of success are generally low. For example California state agencies frequently receive 2-4 times as many grant applications as they have available funding. Sometimes it is necessary to apply more than once. For example, if a proposal receives a high score, but not high enough to be awarded a grant, the proposal might be revised and submitted the next year. Last, many grant programs have limits on who may apply. For example, the Integrated Regional Water Management Grant Program funded by Prop 84, and potentially by Prop 1, does not allow individual cities to apply on their own, but rather they must work through a regional consortium that submits a slate of projects for consideration from that region.

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Grants are not for "Business as usual"

Most grant programs aim to provide incentives to encourage cities to advance a specific objective and promote a different way of "doing business". These programs reward projects that will demonstrate new, innovative approaches, or a new technology, or some other advancement in the field of interest. Since grants are also very competitive, an average "run of the mill" project is usually overlooked for funding. One of the best strategies for securing grants is to address a significant problem that is faced by many organizations, or to develop an innovative component to a project, or both.

Grant Costs & Management

The cost to prepare a competitive grant proposal can range from $10,000 to $200,000 or more, depending upon the complexities and requirements of the grant program. The applicant must also provide a financial match, which can be 20%-75% or more of the total project cost. Administration and management of a grant can be very time consuming. Most overhead charges and administrative costs are not usually eligible for reimbursement. These costs must be covered by the applicant and can amount to 10%-20% of the total project cost.

The applicant must also possess adequate cash reserves to be able to "float" project costs until the funding agency provides reimbursement. Reimbursements can take from 1-4 months to be received and only cover up to 90% of the invoiced amount. The final 10% is paid, once the project has been completed and all lingering issues, such as contractor disputes or labor compliance issues are resolved to the funding agency's satisfaction. In some cases, this may take up to two years. Some smaller local agencies have found this cash-flow issue to be a significant limitation that affects their ability to apply for certain grants.

Finally, some grants may have on-going monitoring and reporting requirements that can extend for years after the project is completed and all grant funds have been expended. The applicant is expected to cover these costs and provide this information on an annual basis.

Kestrel Consulting Recommends This Approach

Taking into consideration all the issues and costs associated with grants, we recommend that the Public Services Department should use a systematic and strategic approach to decide when it's appropriate to apply for a grant. First, assess what is needed by identifying a list of future projects and resource limitations. Next rely on staff and specialized consultants to stay informed on funding opportunities. When a funding opportunity appears to match up with an identified project or group of projects, an analysis should be performed at many levels to evaluate the likelihood of success and the costs and benefits of preparing an application. If the department decides to apply, the grant proposal may be developed by consultants, staff or more likely, a combination of both. If a grant is awarded to the department they may decide to manage it "in-house" or hire a contractor to manage it, depending upon the resource limitations of the department at that time. In conclusion, we recommend a strategic, thoughtful, systematic approach to identify needs, evaluate grant opportunities, and clearly weigh the likelihood of success before applying for grants.

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Potential Grants and Loans for WRF Identified by Citizens

	CFDA Number	Title	Agency/Office	Assistance Type	Median Award	Notes from Kestrel Consulting
1	10.054	Emergency Conservation Program	USDA/Farm Serv Agcy	C		n/a - funding and assistance to farmers to repair damaged farmland or install water conservation.
2	10.675	Nat'l Urban&Community Forestry Challenge	USDA/FS		$180,000	n/a - focus on urban forests
3	10.693	Watershed Restoration&Enhancement Agree	USDA/Forest Service	B		n/a protect habitat and achieve USFS goals & obj
4	10.76	Water&Waste Disposal Systems for Rural Com	USDA/RUS	B,E,F	#VALUE!	Not eligible. population> 10,000
5	10.763	Emergency Community Assistance Grants	USDA/RUS	B		n/a - Drinking water program. Population >10,000
6	10.77	Water&Waste Disposal Loans&Grants	USDA/Rural Utilities Ser	B,E		Not eligible. population>10,000
7	10.901	Resource Conservation & Development	USDA/NRCS	K		n/a
8	10.902	Soil and Water Conservation	USDA/NRCS	K		n/a
9	10.923	Emergency Watershed Protection	USDA/NRCS	B	$800,000	n/a
10	10.925	Agricultural Water Enhancement Program	USDA/NRCS	C		n/a - small grants to farmers
11	10.93	Regional Conservation Partnership Program	USDA/NRCS	B		n/a "on-farm inprovements"
12	11.3	Public Works Development Facilities Program	DOC/EDA		N/A	not eligible due to low unemployment,high income
13	11.302	Planning Program&Local Tech Assist Program	DOC/EDA	B	$83,000	does not align with EDA's current investment priorities
14	11.419	Coastal Zone Mgt Admin Awards	DOC/NOAA	A,B		only States may apply, supports Coastal Programs
15	11.42	Coastal Zone Mgt Estuarine Research Reserves	DOC/NOAA	B		not applicable for WWTP
16	11.469	Congressionally identified awards&projects	DOC/NOAA	B	N/A	n/a for water reclamation facility
17	12.101	Beach Erosion Control Projects	DOD/ACOE	K		n/a - not related to erosion
18	12.108	Snag&Clear for Flood Control (CAPsec208)	ACOE		50,000	n/a - not related to flood control
19	12.109	Protection Clearing Straightening Channels	ACOE			n/a - not related to this
20	12.13	Estuary Habitat Restoration Program	DOD/Army	B	N/A	n/a- restoration-centric
21	14.218	Community Dev Block Grants/Entitlement Gran	HUD	A	$2.96 million	not likely due to income levels
22	14.703	Sustainable Communities Regional Planning	HUD/Office of Sustain	B		n/a - planning grants focused on multi-benefit

Assistance Type:
A: Formula Grants
B: Project Grants
C: Direct Payments for a Specified Use
D:
E: Direct Loans
F: Guaranteed Insured/Loans
G:
H:
I : Use of Property, Facilities
J:
K: Advisory Services and Counseling

	CFDA Number	Title	Agency/Office	Assistance Type	Median Award	Notes from Kestrel Consulting
23	15.504	Title XVI Water Reclamation & Reuse	DOI/BuRec	A		Yes- see memo
24	15.506	Water Desalination R&D Program	DOI/BuRec	B	N/A	n/a - unless a new technology is piloted
25	15.511	Cultural Resources Mgt	DOII/BLM	B	N/A	n/a - not a cultural resourcesproject
26	15.53	Water Conservation Field Services Program	DOI/BuRec	B		n/a - not "water conservation"
27	15.548	Reclamation Rural Water Supply Program	DOI/BuRec	B		Focused on rural drinking water supply.
28	15.554	Cooperative Watershed Mgt Program	Bureau of Reclamation	B	$81,609	n/a - watershed groups
29	15.554	WaterSMART	DOI/BuRec	B	$100,000	n/a for construction, possible for later add-ons
30	15.608	Fish & Wildlife Mgt Assistance	DOI/FWS	B		n/a
31	15.614	Coastal Wetlands Planning, Protec, Restoration	DOI/FWS	B		n/a
32	15.623	North American Wetlands Conservation Act	DOI/FWS		N/A	n/a
33	15.63	Coastal Program	DOI/FWS	B	$13,000	small grants, TE Species focus, n/a
34	15.631	Partners for Fish & Wildlife Program	DOI/FWS	B	$25,000	small grants n/a
35	15.655	Migratory Bird Monitoring, Assessment&Consv	DOI/FWS	B		n/a
36	15.657	Endangered Species Conservation	DOI/FWS	B	N/A	n/a
37	15.669	Cooperative Landscape Conservation	DOI/FWS	B		planning for landscape-scale conservation
38	66.041	Climate Showcase Communities Grant Program	EPA/OAR	B	$12,600	focus on GHG Reduction programs
39	66.202	Congressionally Mandated Projects	EPA/Office of CFO	B		"earmarks" - even these move through existing programs
40	66.418	Construction Grants for Wastewater Treatment	EPA/OW	B		defunct program, now CWSRF
41	66.424	Surveys, Studies, Investigations, Demos…	EPA/Office of Water	B		env justice, drinking water focus
42	66.436	Surveys, Studies, Investigations, Demos…	EPA/Office of Water	B		env. Justice focus, surveys
43	66.439	Targeted Watershed Grants	EPA/Office of Water	B		watershed focused, smaller grants
44	66.44	Urban Waters Small Grants	EPA/Office of Water	B	$50,000	small grants for research
45	66.456	National Estuary Program	EPA/Office of Water	B		habitat focused

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	CFDA Number	Title	Agency/Office	Assistance Type	Median Award	Notes from Kestrel Consulting
46	66.458	Clean Water State Revolving Fund	EPA/Office of Water			Yes, through SWRCB, see memo
47	66.46	Nonpoint Source Implementation Grants	EPA/Office of Water	A	$2.8 million	not eligible
48	66.461	Regional Wetland Program Development Grant	EPA/Office of Water	B		n/a
49	66.462	Five-Star Restoration Program	EPA/Office of Water	B	$25,000	n/a - small grants for restoration
50	66.472	Beaches Environ Assessment&Coastal Act	EPA/Office of Water	B	$250,000	n/a, Grants for Monitoring Beaches
51	66.51	Surveys, Studies, Investigations and Spec Purp	EPA/ORD	B		n/a studies
52	66.611	Environmental Policy and Innovation Grants	EPA/Office of Adminis	B		small grants for env. Economics studies, no $$ in FY15
53	66.717	Source Reduction Assistance Grant Program	EPA		$50,000	small grants, n/a
54	66.814	Brownfields Training, Research& Tech	EPA/OSWER	B		n/a for WRF
55	66.818	Brownfields Assessment & Cleanup	EPA/OSWER	B		possible if a Brownfield is the chosen site
56	97.039	Hazard Mitigation Grant Program	FEMA		N/A	n/a
57	97.047	Pre-Disaster Mitigation Program	FEMA		N/A	n/a
58		Aquatic Ecosystem Restoration (CAP sec 206)	ACOE		$199,592	n/a
59		Beneficial Uses of Dredged Mat (CAPsec204)	ACOE		$130,241	n/a
60		Community Based Marine Debris Preven&Rem	NOAA/MDP		$75,000	n/a
61		Environmental Solutions for Communities	Nat'l Fish&Wildlife Foun		$40,000	n/a
62		Land & Water Conservation Fund	DOI/NPS		$85,000	n/a
63		Project Mods for Improvement of the Environ	ACOE		$145,465	Only applies to ACOE structures
64		Small Flood Damage Reduc Prog (CAPsec205)	ACOE		$191,023	n/a
65		Wetlands Program Development Grants	EPA/Office of Water		$220,000	n/a
		KESTREL ALSO RESEARCHED				
		All State Water Board Grant Programs				
		All Dept. of Water Resources Grant Programs				
		All Resources Agency Programs				
		All California Energy Commission programs				
		All Cap and Trade Auction Revenue programs				
		All federal grant programs for water treatment/recycling				

Assistance Type:
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Appendix G

Hydrologic Evaluation of Chorro Valley and Morro Valley
Cleath-Harris Geologists, November 2014

Cleath-Harris Geologists, Inc.
71 Zaca Lane, Suite 140
San Luis Obispo, California 93401
(805) 543-1413

Technical Memorandum

Date: November 6, 2014

From: Spencer Harris, HG 633

To: Rob Livick, Morro Bay Public Services Director/City Engineer

SUBJECT: Hydrologic evaluation of the potential benefits to the City water supply from increasing wastewater discharge to Chorro Creek, San Luis Obispo County.

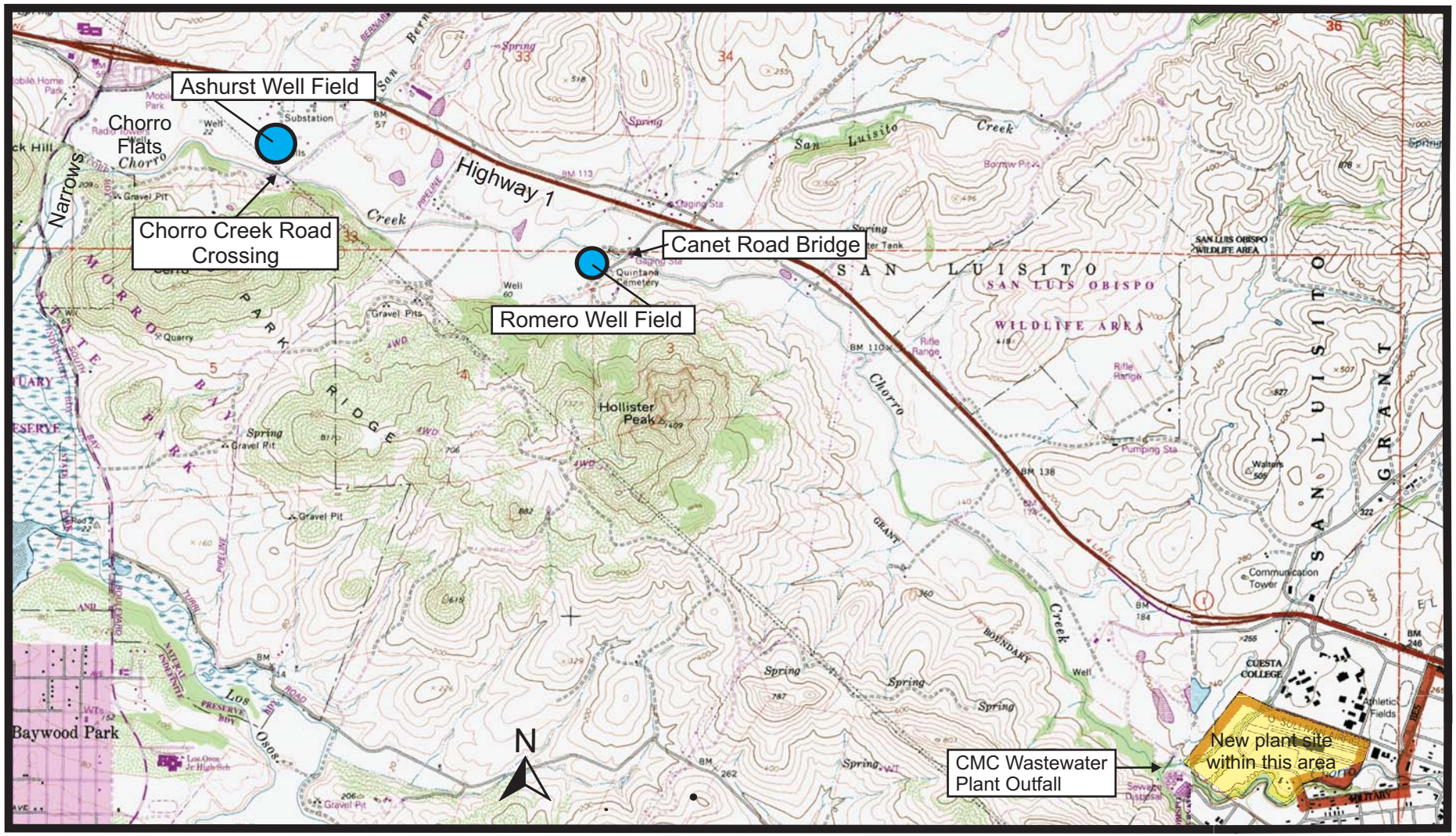
Cleath-Harris Geologists (CHG) has completed an evaluation, on behalf of the City of Morro Bay (City), of potential increases in groundwater yield to the City's Chorro Valley well fields from increased wastewater discharges to Chorro Creek. Constraints on City well field production include minimum surface flow requirements in Chorro Creek. Increasing the flow in Chorro Creek using wastewater discharges would allow the City to operate their well fields more frequently, with more available water during drought periods, in addition to providing water for environmental demand. This Technical Memorandum presents the results of the study.

Regulatory constraints related to waste discharge permitting and groundwater quality were not evaluated in this memorandum. Direct wastewater reuse in the Chorro Valley was also not part of this study. The benefits analysis focuses on water rights and hydrology, and specifically on compliance with the minimum stream flow requirements contained in the City's permit for diversion and use of Chorro Creek underflow.

Background

The City of Morro Bay is evaluating sites for constructing a new water reclamation facility. One of the potential locations has been identified as the area near the existing California Mens Colony (CMC) wastewater plant in the Chorro Valley (Figure 1). The CMC wastewater plant operates under Waste Discharge Order R3-2012-0027, with a permitted average dry-weather discharge of 1.2 million gallons per day (MGD) to Chorro Creek, and a minimum continuous discharge requirement of 0.75 cubic feet per second (cfs).

The Second Public Draft Options Report prepared for the City indicates the new facility could either be constructed and operated by the City, independent from the existing CMC wastewater plant, or be constructed and operated as a regional facility under a multi-agency project, which would replace the older CMC plant (Rickenbach, 2013). In either case, the new facility would process effluent from both Morro Bay and Cayucos. Wastewater discharges to Chorro Creek would be projected to increase by an average of 1.5 MGD, equivalent to approximately 2.32 cfs.



Base Maps: U.S.G.S. Morro Bay North (1995), Atascadero (1995), Morro Bay South (1994), and San Luis Obispo (1995) Quadrangles, San Luis Obispo County, California, 7.5 Minute Series (Topographic)

0 3,000

Scale: 1 inch = 3,000 feet

Figure 1
Chorro Valley Well Fields
City of Morro Bay

Cleath-Harris Geologists, Inc.

Constraints on City Well Field Production

The City operates two well fields in the Chorro Valley, the Romero well field and the Ashurst well field. The constraints on the City's ability to pump from the Chorro Valley have been grouped into four categories: water rights, water quality, facilities, and stream flow interference.

Water Rights

Both Chorro Valley well fields operate under State Water Resource Control Board, Division of Water Rights Permits for Diversion and Use of Water. For this benefits analysis, the City is assumed to be constrained by water rights permits to cease production at the well fields when surface flow in Chorro Creek (measured downstream of the respective fields) is less than 1.4 cfs. The current permitted maximum allocation for City groundwater production from the Chorro Valley well fields is 1,142.5 acre-feet per year (CH2M Hill, 2011 Appendix F). If the City increases wastewater discharges to Chorro Creek, however, it is assumed that the City well field allocation of creek underflow may also be increased.

Water Quality

Water from the Chorro Valley well fields has historically been impacted by elevated nitrate concentrations, which are attributed primarily to agricultural fertilizer applications (CHG, 2009). The City is working to resolve the nitrate problem by providing treatment or blending by 2020 (CH2M Hill, 2011). Addressing nitrate contamination or future regulatory standards for emerging contaminants, including pharmaceuticals and personal care products, would be required with or without the additional wastewater discharges to Chorro Creek. Therefore, water quality constraints on production are not a factor in this benefits analysis.

Historically, seawater intrusion has not been a problem for the City's Chorro Valley well fields. The Department of Water Resources seawater intrusion study in 1972 documented elevated salinity associated with seawater intrusion in the narrows area downstream of Chorro Flats (Figure 1). Since that study, chloride level fluctuations at the County golf course irrigation well also suggested occasional periods of intrusion in the narrows area (Cleath & Associates, 1993). Increases in wastewater discharges to Chorro Creek would reduce the potential impact of seawater intrusion in the narrows.

Facilities

Under normal system pressure, maximum production from the Romero well field is approximately 240 gallons per minute (gpm) from one active well, and maximum production from the Ashurst well field is approximately 1,150 gpm from four wells (assuming future treatment/blending for nitrates). The resulting combined production capacity for the City's Chorro Valley well fields is 1,390 gpm, or 3.1 cfs. Wells are not typically pumped continuously for extended periods, and a 75 percent duty factor is assumed for maximum sustainable production, equivalent to approximately 1,040 gpm (coincidentally 2.32 cfs, or 1.5 MGD). The previously mentioned 1,142.5 acre-feet per year permitted maximum allocation is equivalent to 710 gpm, or 1.6 cfs. The City has the capacity, at a 50 percent duty factor, to extract the current maximum allocation.

Stream Flow Interference

The amount of stream flow interference during well field pumping varies by well and the duration of pumping. For the purposes of this benefits analysis, however, a Chorro Creek stream flow depletion rate of 100 percent of the total well field production rate is assumed. In other words, groundwater production at the City well fields will reduce stream flow by an equivalent amount.

Methodology

CHG has been monitoring stream flow at two locations on Chorro Creek every two weeks from January 2010 to present (the study period). The monitoring locations are at the Canet Road bridge (adjacent to the County stream gage), and at the Chorro Creek Road crossing. The Canet Road bridge site is approximately 600 feet upstream of the Romero well field, and the Chorro Creek Road crossing is immediately adjacent to the Ashurst well field (Figure 1). This flow data, along with well field production constraints and adjustments for increased agricultural water demand, provide the information needed to complete the benefits analysis using the four steps outlined below.

Step 1. Treated wastewater discharges to Chorro Creek (1.5 MGD) are added directly to the January 2010 - September 2014 flow data measured at Chorro Creek Road, except during periods of no flow. Low flow correlation with Canet Road provides a basis for adjustment when there are no measurable surface flows at Chorro Creek Road.

Step 2. Potential increases in local agricultural water demand, based on a land survey conducted between the CMC wastewater discharge site and the City well fields, are subtracted from the surface flows calculated in Step 1 to account for future losses in stream flow not benefitting the City.

Step 3. The maximum available production from City well fields are compared with and without increased City wastewater discharges. Well field production constraints are applied. The potential benefit to the City is calculated as the increased production available under project conditions during 2010-2014 study period, which includes an exceptional drought.

Step 4: Increasing the maximum permitted diversions from Chorro Creek underflow will also directly increase the potential City benefit during years where the minimum flow threshold does not significantly restrict production (i.e. non-drought years). The current maximum permitted diversion is 1,142.5 acre-feet per year. The continuous sustainable capacity of the City well field facilities is estimated at 1,040 gpm, or 1,678 acre-feet per year. The benefit to the City from increasing the maximum permitted discharge is the difference between annual production under project conditions and 1,142.5 acre-feet per year (up to 535 acre-feet of increased annual production).

Benefits Analysis

Bi-weekly flow measurements for Chorro Creek at the Chorro Creek Road crossing from January 2010 through September 2014 are plotted in Figure 2. The 1.4 cfs flow threshold for permitted diversions from City well fields is shown, along with the allowable extractions by the City well fields, assuming a maximum facilities production rate of 1,040 gpm (2.32 cfs) with 100 percent of production resulting in stream flow depletion. Periods where the annual permitted maximum diversion of 1,142.5 acre-feet would be reached is also shown.

Adjustments for potential increased agricultural water demand and for the flow deficit during periods of low flow are needed prior to adding the 1.5 MGD increased discharges under project conditions. These adjustments are described below.

Increased Agricultural Demand Adjustment

A land use survey using aerial imagery identified three properties with wells in the Chorro Valley groundwater basin, between the CMC wastewater plant discharge site and the Ashurst well field, where additional land could be farmed. Increasing irrigated acreage would increase overall future groundwater extractions and reduce stream flow, compared to current conditions. Room for 20 acres of increased vineyard acreage and 40 acres of other potential crops were identified, which could result in up to 120 acre-feet per year of additional groundwater demand. Assuming 85 percent consumptive use (15 percent return flow), and 100 percent of the consumptive use derived from stream depletion, the estimated potential average decrease in Chorro Creek stream flow from increased agricultural water use would be approximately 100 acre-feet per year (63 gpm; 0.14 cfs).

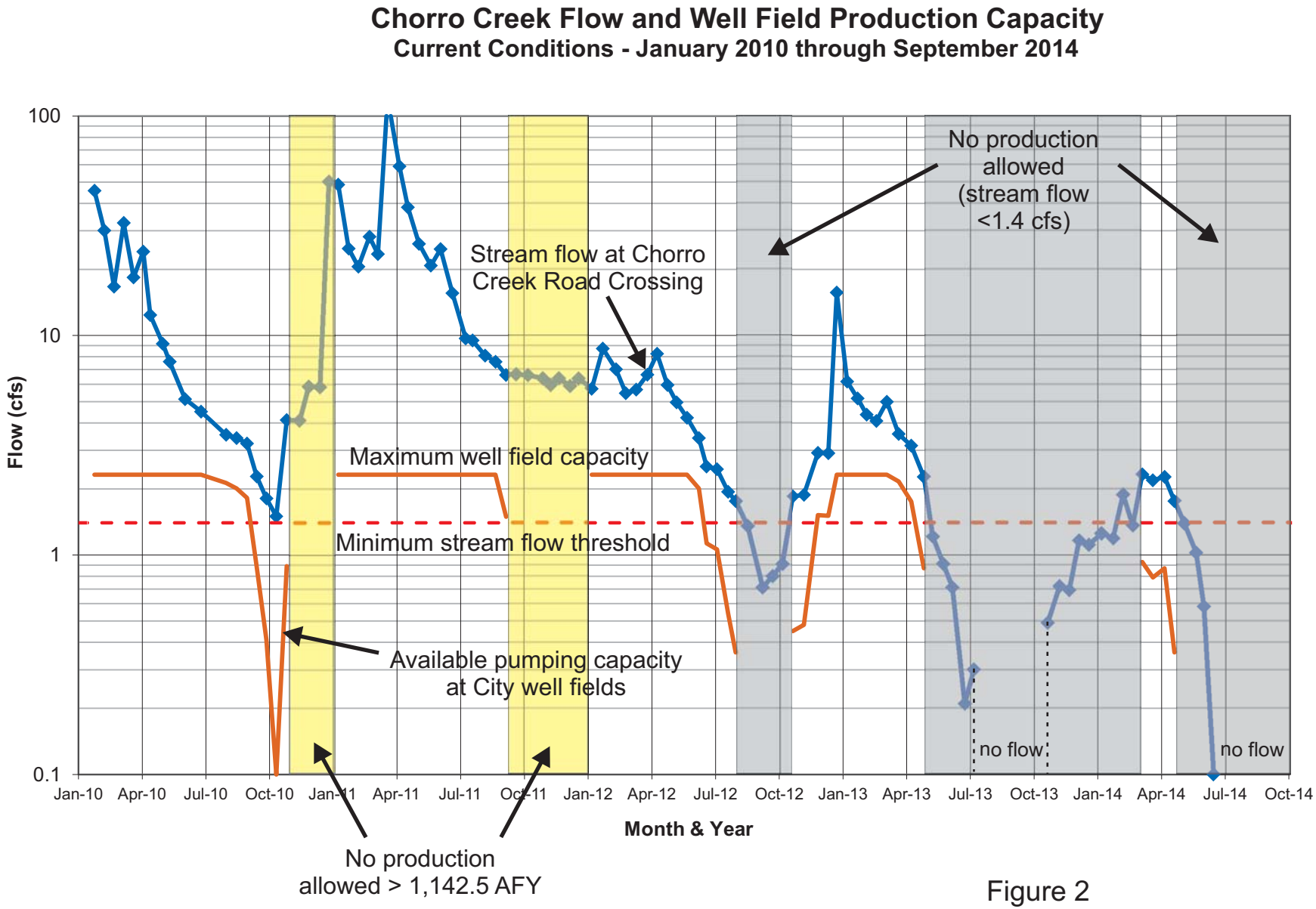


Figure 2
Chorro Creek Flow
Current Conditions
City of Morro Bay

Cleath-Harris Geologists

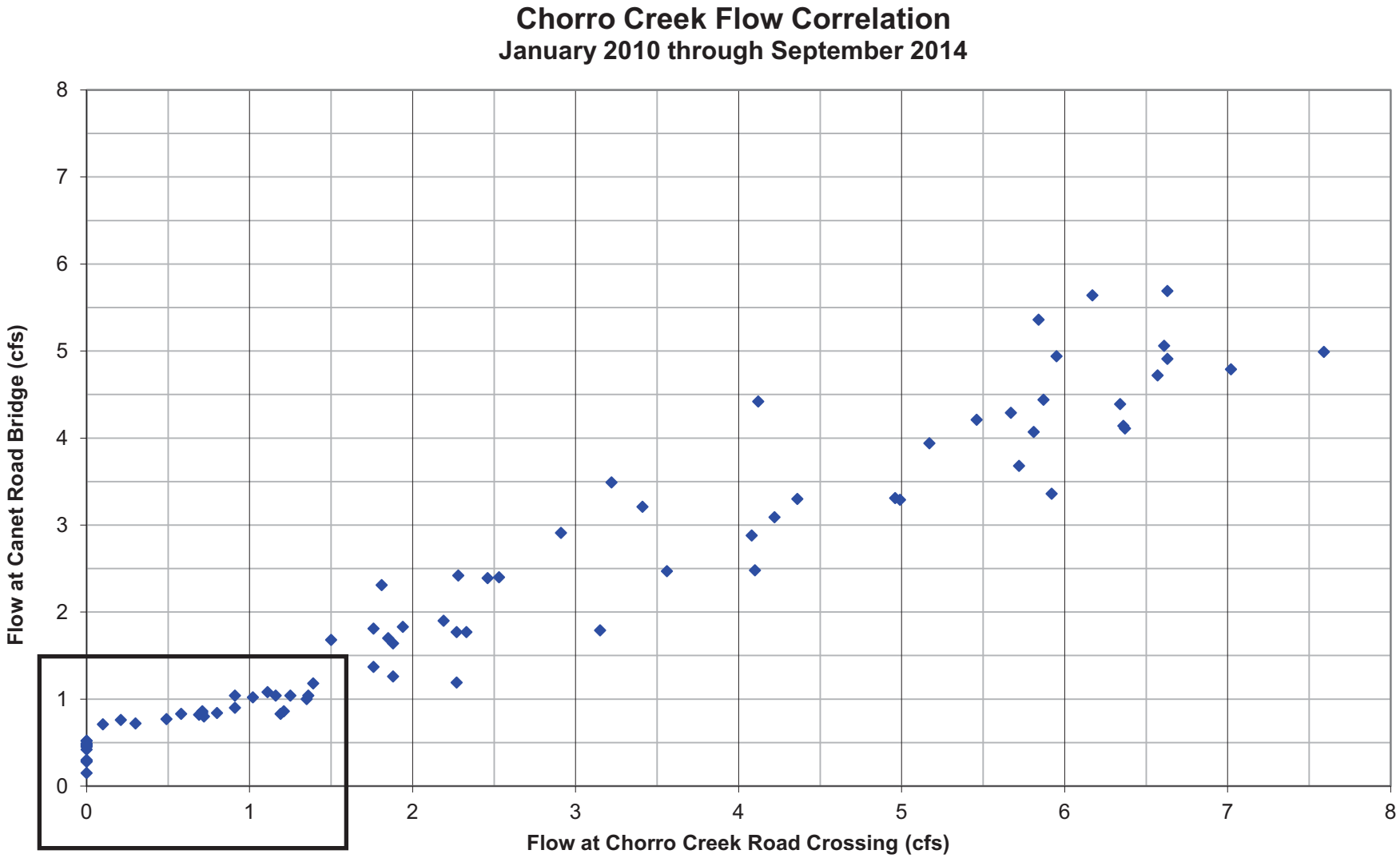
Low Flow Conditions Adjustment

Figures 3 and 4 present the correlation between stream flow at Canet Road and Chorro Creek Road. At moderate flows of 2-8 cfs, Chorro Creek is generally a gaining stream between Canet Road and Chorro Creek Road (Figure 3). At flows less than 1.5 cfs, however, Chorro Creek becomes a losing stream. There is no flow at Chorro Creek Road when flow at Canet Road falls below a threshold of approximately 0.7 cfs (Figure 4). This low flow correlation can be used to estimate the accumulated deficit in flow at Chorro Creek Road, which subtracts from the 1.5 MGD increase in surface flow under project conditions.

For example, on July 26, 2013, flow on Chorro Creek at Canet Road was measured at 0.29 cfs, with no flow at Chorro Creek Road. Since a flow of 0.7 cfs is needed at Canet Road before any surface flow is observed at Chorro Creek Road, the corresponding flow deficit would be 0.41 cfs. For an increased wastewater discharge of 1.5 MGD (2.32 cfs) upstream of Canet Road, the stream would lose 0.41 cfs between Canet Road and Chorro Creek Road, and the resulting surface flow at Chorro Creek Road would be estimated at 1.91 cfs.

City Water Supply Benefit

The bi-weekly flow measurements for the study period presented in Figure 2 are re-plotted in Figures 5 and 6. Figure 5 shows the anticipated changes in stream flow from adding 1.5 MGD wastewater discharges to Chorro Creek at a constant rate. Figure 6 shows the anticipated changes in flow from adding 1.5 MGD wastewater discharges in the form of a variable monthly discharge rate, based on the monthly flow distribution observed at the existing plant in 2005, a wet year (Table 1).



Low flow data set
(see Figure 4)

Figure 3
Chorro Creek Flow Correlation
Current Conditions
City of Morro Bay

Cleath-Harris Geologists

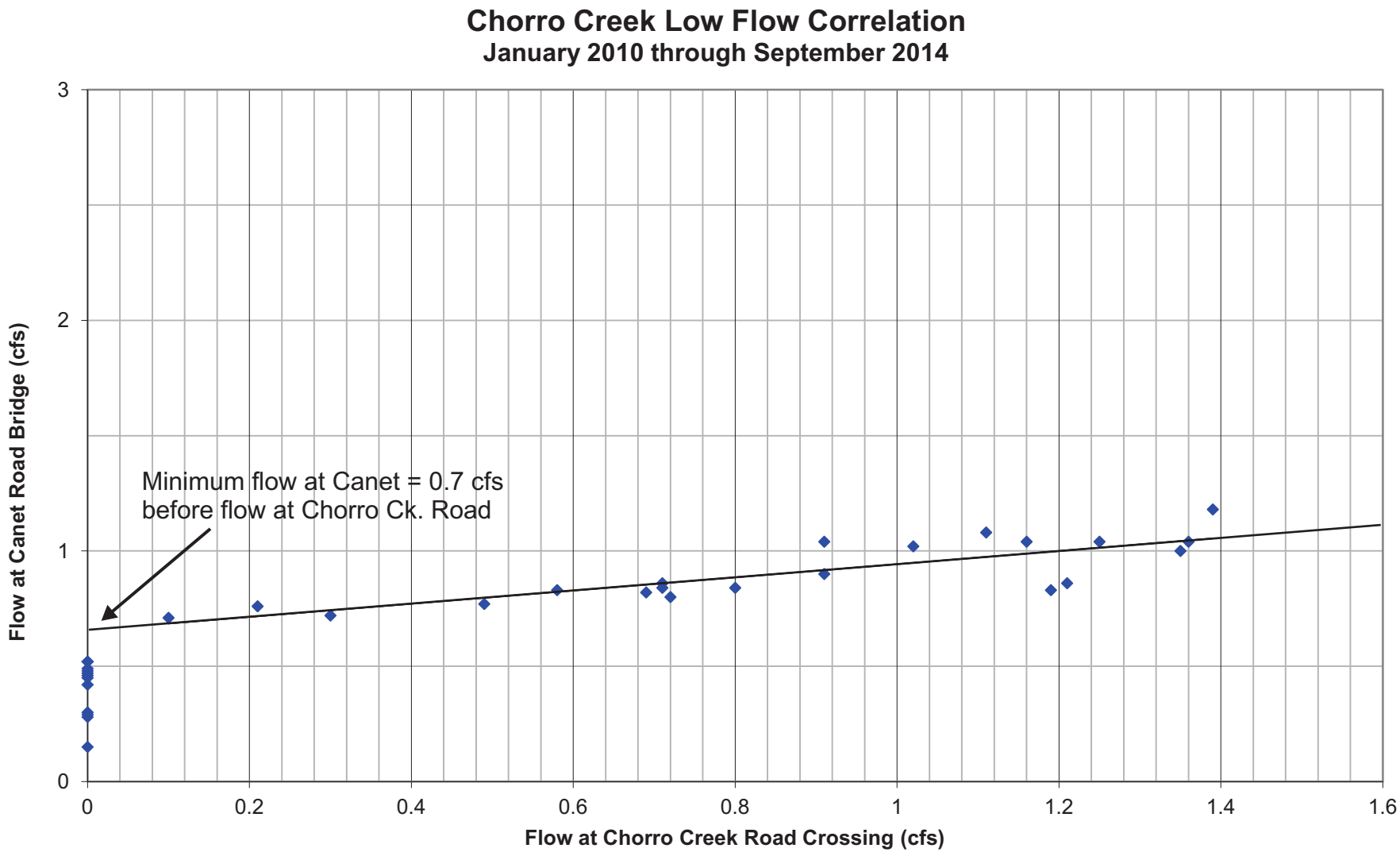


Figure 4
Chorro Creek Flow Correlation
Low Flow Data Set
City of Morro Bay

Cleath-Harris Geologists

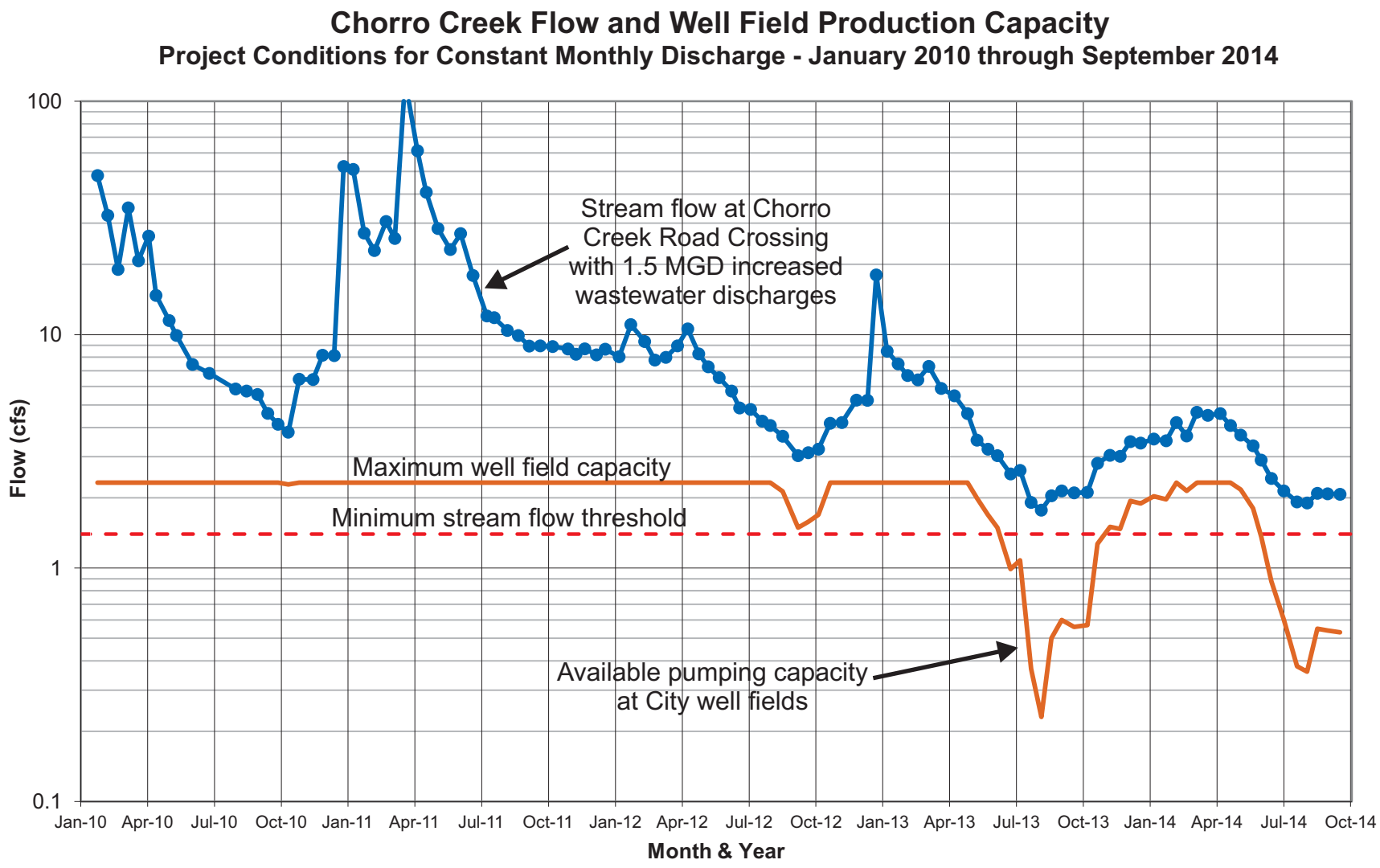


Figure 5
Chorro Creek Flow
Project Conditions - Constant Discharge
City of Morro Bay

Cleath-Harris Geologists

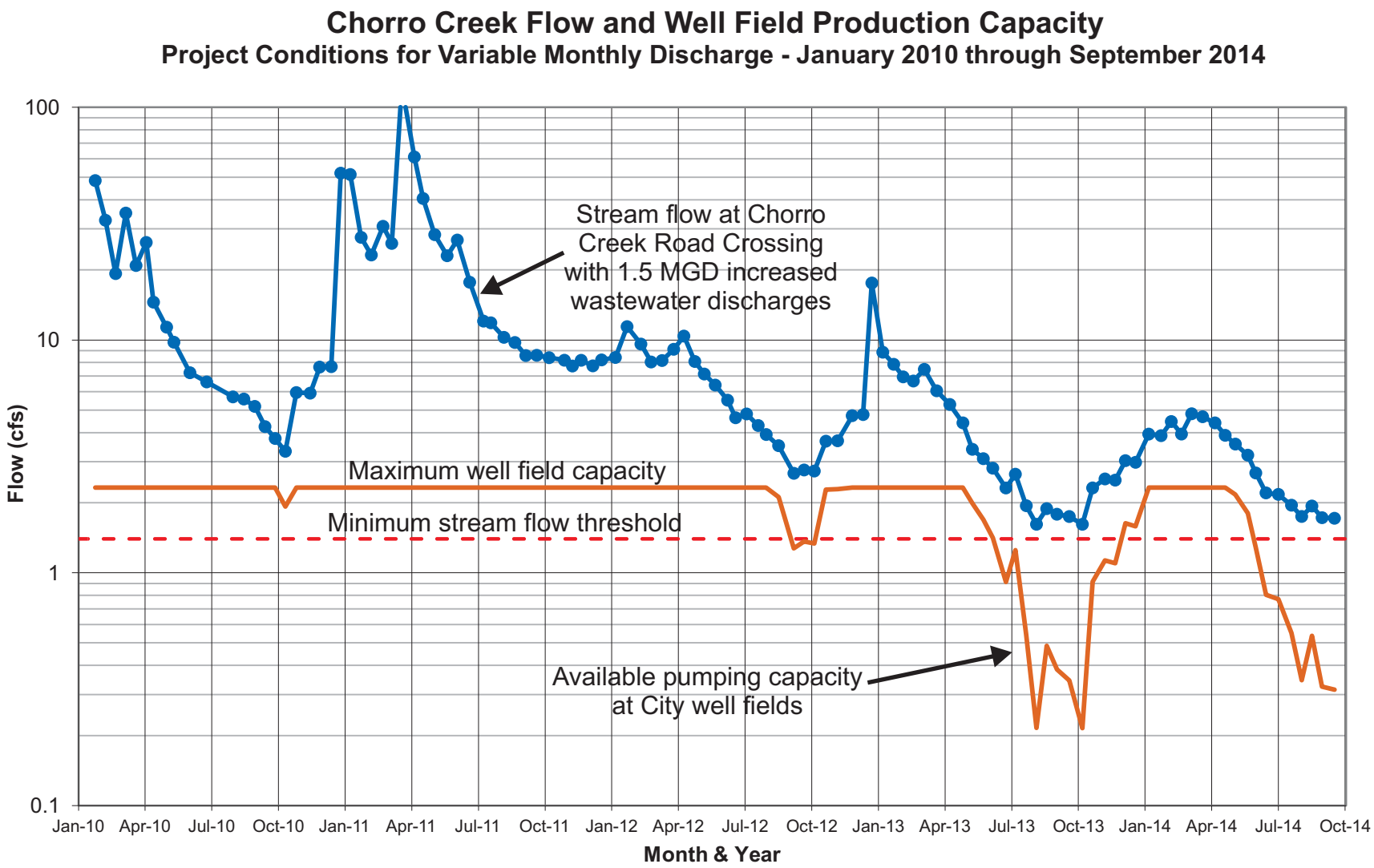


Figure 6
Chorro Creek Flow
Project Conditions - Variable Discharge
City of Morro Bay

Cleath-Harris Geologists

Table 1
Project Conditions
Variable Wastewater Discharge Rate

Month	Average Daily Flow (MGD)
January	1.83
February	1.76
March	1.70
April	1.47
May	1.50
June	1.45
July	1.61
August	1.49
September	1.36
October	1.27
November	1.26
December	1.30
Average	1.50

Adjustments for potential increased agricultural water demand and for low flow conditions have been applied. The 1.4 cfs flow threshold for permitted diversions from City well fields is shown, along with the allowable extractions by the City well fields, assuming a maximum facilities production rate of 2.32 cfs with 100 percent of production resulting in stream flow depletion.

Figures 7 and 8 show the potential benefit of the increased wastewater discharges, based on the difference in the allowable extractions by the City well fields between current and project conditions. Table 2 and 3 below summarize the increased water supply available to the City based on project conditions over the January 2010 to September 2014 study period.

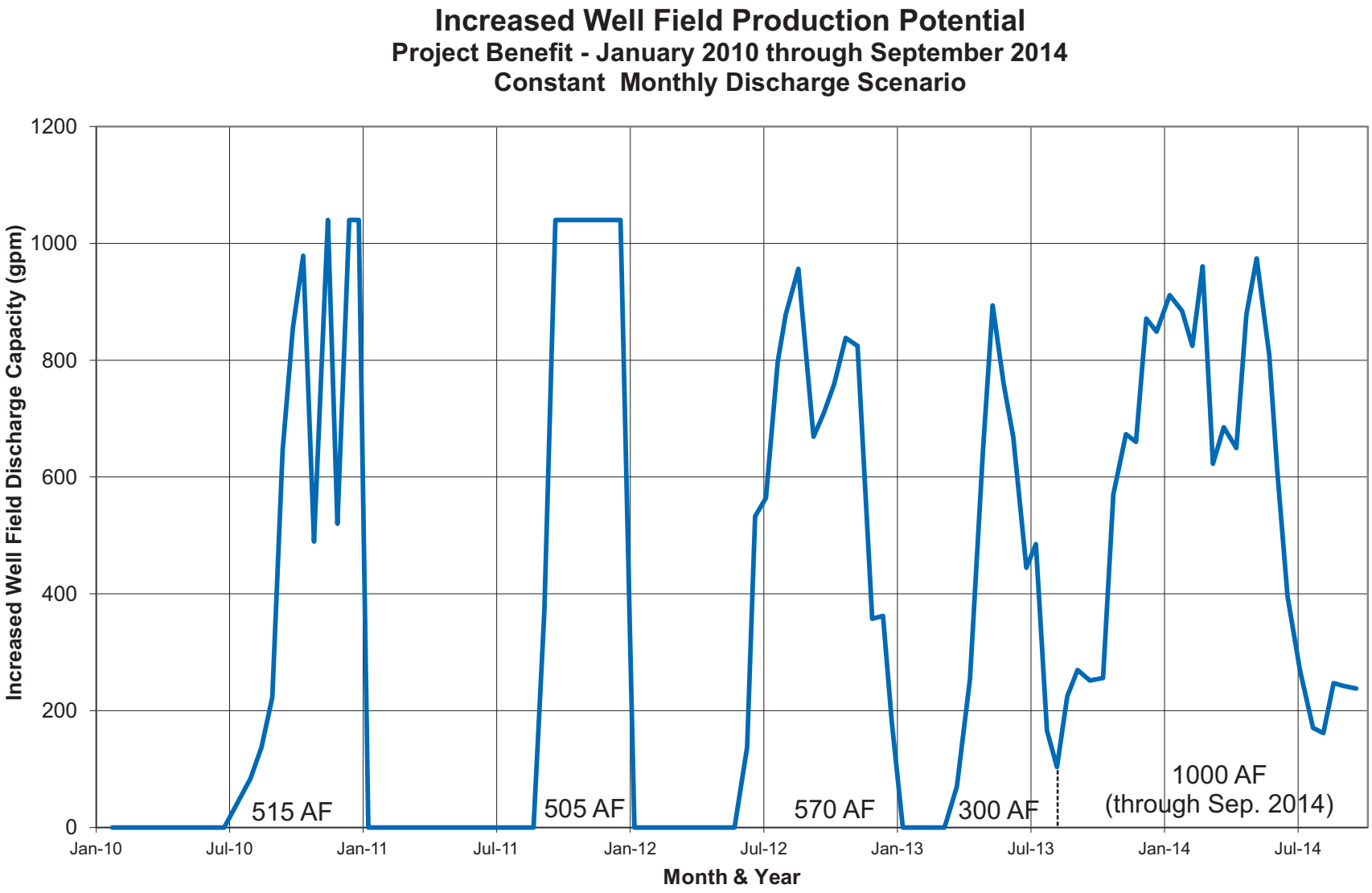


Figure 7
Project Benefit - Constant Discharge
City of Morro Bay

Cleath-Harris Geologists

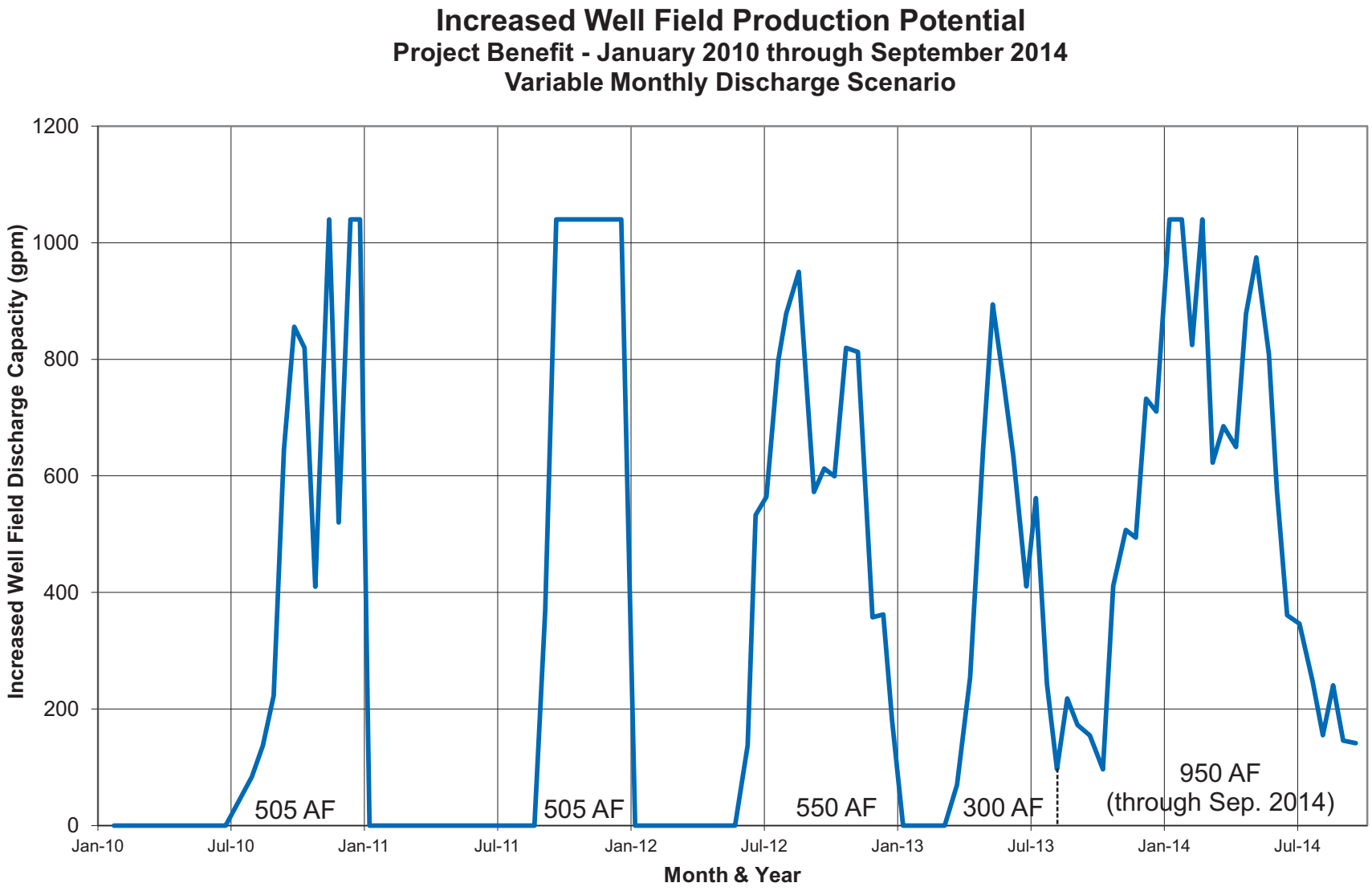


Figure 8
Project Benefit - Variable Discharge
City of Morro Bay

Cleath-Harris Geologists

Table 2
City Water Supply Benefit - Constant 1.5 MGD Discharge Rate
January 2010 - September 2014

Time Periods with benefit under project conditions during 57-month study period	Maximum City Well Field Production (Acre-Feet)		
	Current Condition	Project Condition	Project Benefit
July - October 2010 (4 mos.)	255	770	515
Sep.- December 2011 (4 mos.)	25	530	505
June - December 2012 (7 mos.)	300	870	570
March - August 2013 (6 mos.)	130	430	300
Sep. 2013 - Sep. 2014 (13 mos.)	100	1100	1000
TOTAL (34 mos.)	810	3700	2890

Table 3
City Water Supply Benefit - Variable Discharge Rate
January 2010 - September 2014

Time Periods with benefit under project conditions during 57-month study period	Maximum City Well Field Production (Acre-Feet)		
	Current Condition	Project Condition	Project Benefit
July - October 2010 (4 mos.)	255	760	505
Sep.- December 2011 (4 mos.)	25	530	505
June - December 2012 (7 mos.)	300	850	550
March - August 2013 (6 mos.)	130	430	300
Sep. 2013 - Sep. 2014 (13 mos.)	100	1050	950
TOTAL (34 mos.)	810	3620	2810

The benefits analysis identifies five periods totaling 34 months between January 2010 and September 2014 when the City could have produced more water from its Chorro Valley well fields under project conditions, compared to current conditions. The maximum City production available during those 34 months is estimated at 810 acre-feet with the current CMC wastewater treatment

plant discharges and up to 3,700 acre-feet after increasing treated wastewater discharges by a constant 1.5 MGD (a net gain of 2,890 acre-feet), for an average of 85 acre-feet per month benefit. The total average increase in wastewater discharges over the 57-month study period would be 7,980 acre-feet.

The average net benefit to the City is approximately 36 percent of the total increased discharges to Chorro Creek over the 57-month study period, and approximately 60 percent of the increased discharges to Chorro Creek during the 34 months of actual project benefits. The benefit is maximized during drought periods.

With increased treated wastewater discharges, the minimum threshold for flow in Chorro Creek required for City well field production would be met at all times, even under the current exceptional drought condition. As shown in Figure 2, there have been close to 16 months during the 57-month study period when stream flow at Chorro Creek Road was at or below the 1.4 cfs threshold for well field operation. Under project conditions, flow would exceed the 1.4 cfs threshold in all months (Figures 5 and 6).

During drought, the benefit specific to increasing the maximum permitted diversion will decline, but the overall benefit will increase due to gains from meeting the minimum flow threshold. Figure 9 illustrates this dynamic benefit to the City water supply during the study period, along with approximate annual benefits to the City water supply over the study period. Annual benefit during normal to wet years was up to 515 acre-feet. The drought benefit was up to 700 acre-feet through the first 9 months of 2014, which would be projected to reach 900 acre-feet if drought conditions persisted through the end of the year.

Environmental Water Supply Benefit

Siting the new City wastewater plant in the Chorro Valley and increasing average dry weather flows in Chorro Creek by 1.5 MGD would provide more water for meeting environmental demand. Surface flows at Chorro Creek Road would be above the 1.4 cfs threshold for 16 additional months under project conditions, compared to the study period flow record. In addition, there were approximately 7 months of no flow at Chorro Creek Road over the study period, which under the project would have continuous flows of at least 1.4 cfs.

Discharge Management Strategies

Under current conditions, once storm water runoff has dissipated, stream flow in Chorro Creek fluctuates between approximately 0.5 and 1 cfs at the Canet Road bridge, based on correlating stage readings from the County stream gage. These fluctuations relate to a combination of the timing of wastewater discharges from the CMC wastewater treatment plant, riparian corridor

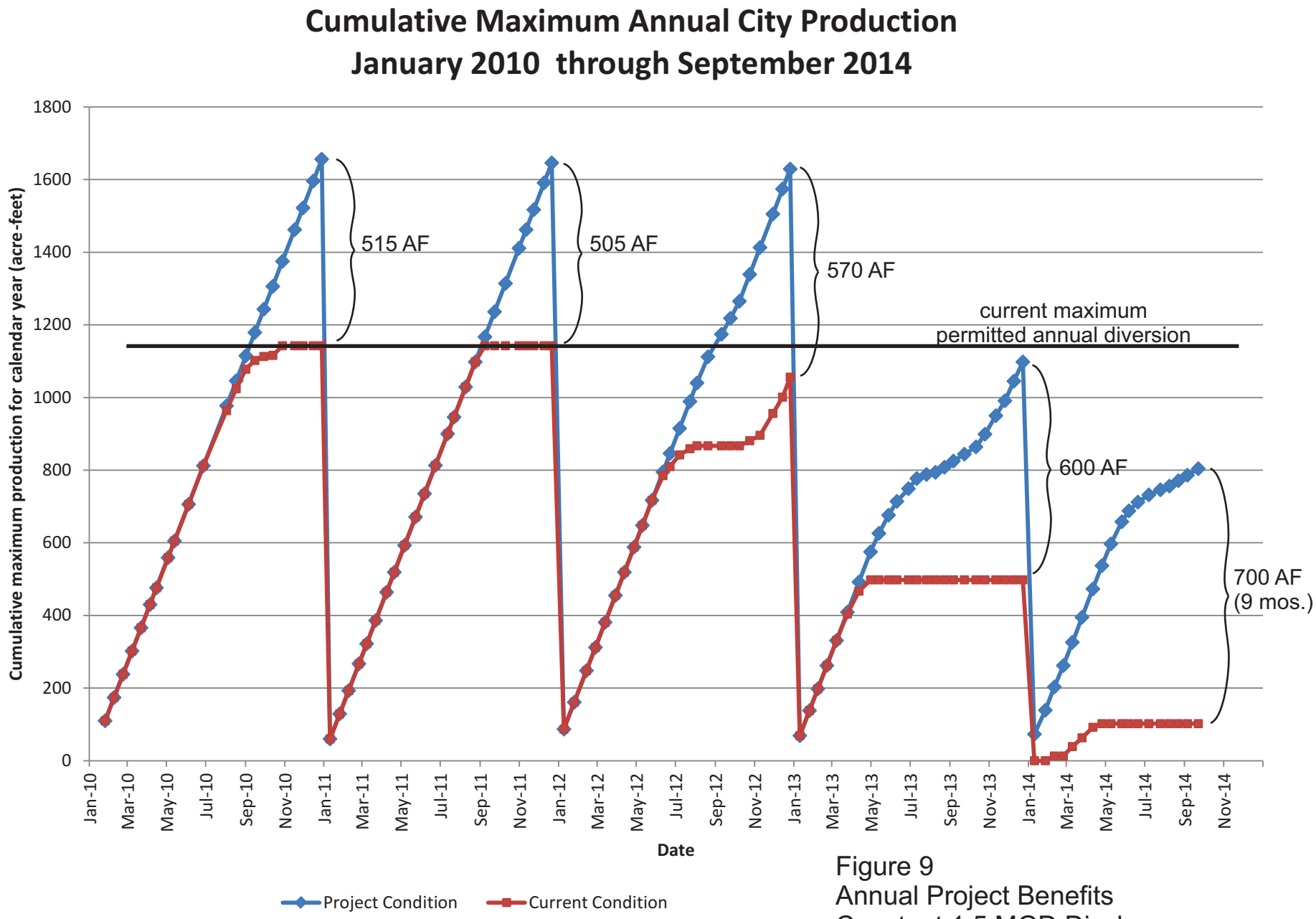


Figure 9
Annual Project Benefits
Constant 1.5 MGD Discharge
City of Morro Bay

Cleath-Harris Geologists

evapotranspiration, and pumping activities upstream of Canet Road. The flow peaks are generally overnight or in the morning hours.

If the City had sufficient treated wastewater storage capacity to control the timing of the non-continuous portion of the permitted discharges, it may be possible to coordinate releases at the new treatment plant with well field operations downstream. For example, if declining flows at Chorro Creek Road approached the 1.4 cfs threshold, the City could adjust well field pumping times to coincide with peak overnight flow periods, taking advantage of both low evapotranspiration and increased releases. Due to the fluctuations in average stream flow velocity and related travel times, the actual timing of peak releases at the new treatment plant may need to vary under this type of management strategy.

An alternative or concurrent management strategy would be to use the flexible (non-continuous) permitted discharge capacity of a new City or multi-agency wastewater treatment plant to offset existing irrigation in the Chorro Valley, thereby reducing groundwater production. A decline in groundwater production will increase surface flows and contribute toward meeting the in-stream flow requirements for permitted diversions.

Summary

This study provides an overview of the constraints on City well field operation in the Chorro Valley and of the potential benefits to the City water supply from increasing wastewater discharges to Chorro Creek. Adding 1.5 MGD in discharges to Chorro Creek over the study period resulted in annual benefits during normal to wet years of up to 515 acre-feet. The drought benefit was up to 700 acre-feet through the first 9 months of 2014, which would be projected to reach 900 acre-feet if drought conditions persist through the end of the year.

References

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Cleath-Harris Geologists, Inc.
71 Zaca Lane, Suite 140
San Luis Obispo, California 93401
(805) 543-1413

Technical Memorandum

Date: November 7, 2014

From: Spencer Harris, HG 633

To: Rob Livick, Morro Bay Public Services Director/City Engineer

SUBJECT: **Hydrologic evaluation of the potential benefits to the City water supply from reclaimed water use in the Morro Valley, San Luis Obispo County.**

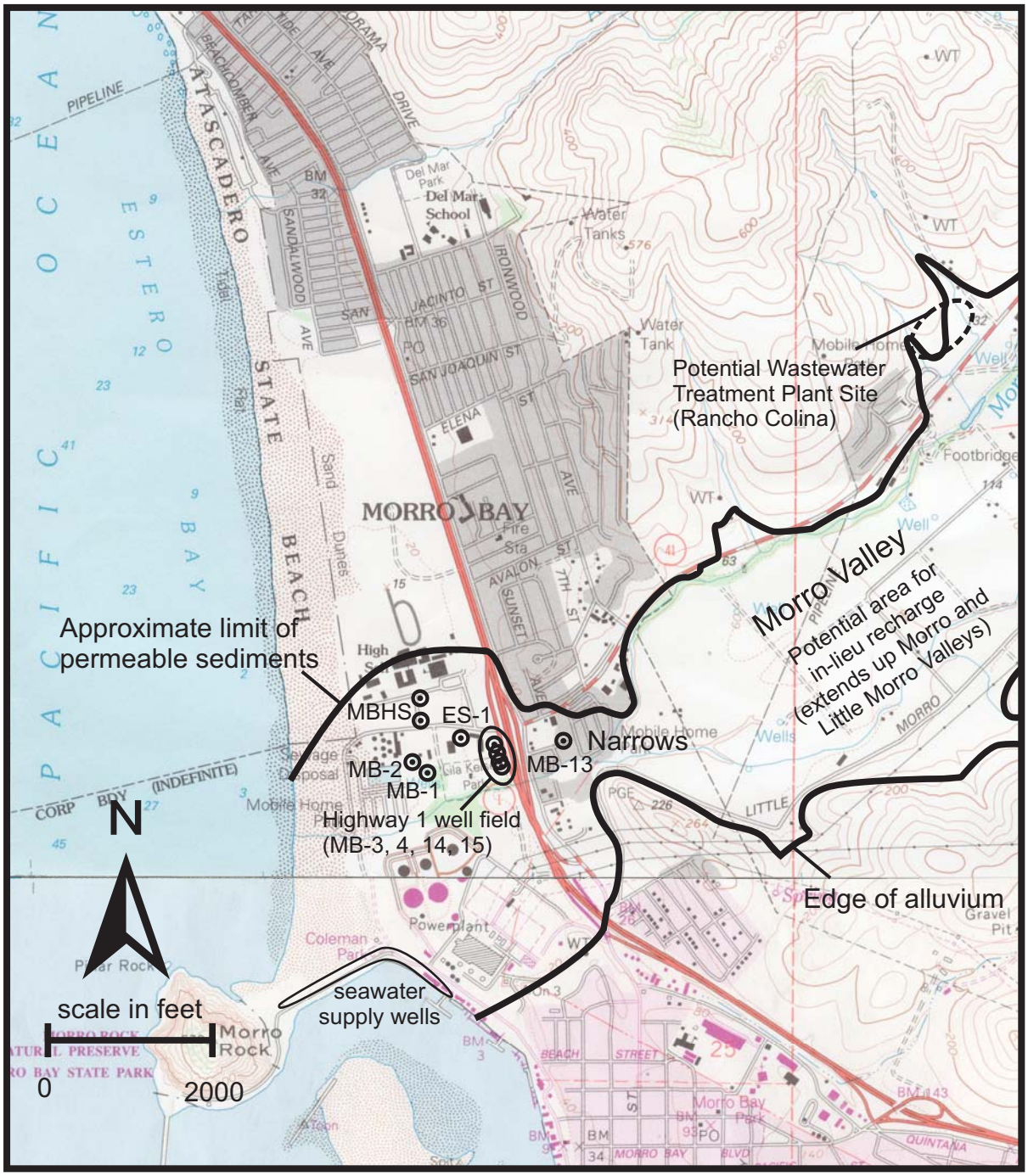
Cleath-Harris Geologists (CHG) has completed an evaluation, on behalf of the City of Morro Bay (City), of potential increases in yield from the City's Morro Valley groundwater basin wells due to the use of reclaimed water for agriculture in the Morro Valley. This memorandum presents the results of the study, and compares the results to a concurrent benefits study for the Chorro Valley.

The Morro basin is in overdraft. The City wells are the farthest downstream wells in the basin, and have lost a significant portion of their historical yield. Providing reclaimed water to growers in the Morro Valley would reduce agricultural pumping and provide in-lieu recharge to the groundwater basin. This in lieu-recharge would restore the freshwater yield during drought years and increase the City's Morro groundwater basin yield during normal to wet periods, in addition to providing water for environmental demand.

Regulatory constraints related to waste discharge permitting and groundwater quality were not evaluated in this memorandum. Direct wastewater reuse in the Morro Valley was assumed to be feasible. The benefits analysis focuses primarily on groundwater use and hydrology, and specifically on potential increases to the maximum permitted diversion of Morro Creek underflow from in-lieu recharge credit, and on increases to the available yield of the basin downstream of the narrows.

Background

The City of Morro Bay is evaluating sites for constructing a new water reclamation facility. One potential location has been identified along Highway 41 in the Morro Valley (Rancho Colina; Figure 1). According to the Second Public Draft Options Report, the Cayucos Sanitary District (CSD) remains a potential partner to the City for all new wastewater facility sites, but are pursuing future options through its own studies, and the efforts of the two agencies are independent of one another (Rickenbach, 2013). This study includes potential benefits from a water reclamation facility in the Morro Valley the would process effluent from the City, which is estimated to average 1.13 million



Base Maps: U.S.G.S. topographic map, Morro Bay North, 1995
and Morro Bay South, 1994.

Legend

- City water well

Figure 1
Morro Valley
City of Morro Bay

Cleath-Harris Geologists

gallons per day (MGD), and potential benefits from a facility that processes both CSD and Morro City flows of 1.5 MGD.

Methodology

The benefits analysis combines basin yield estimates with the principal of conservation of mass used in the standard hydrologic balance equation: groundwater basin inflow = groundwater basin outflow + change in storage. The maximum production capacity of the City wells is also evaluated to be compared with available yield under project conditions. The project benefit is defined as the increase in yield available to City well between current and project conditions.

This analysis takes a "maximum benefit" approach, based on key assumptions discussed below. <u>These assumptions will not necessarily be fully met.</u> They are assumed in order to bracket the upper range of the potential benefit. The benefit to the City water supply from reclaimed water use in the Morro Valley would decline if the assumptions are not fully met. The likelihood of meeting these assumptions should be considered during the wastewater plant siting process. The assumptions are as follows:

1) The water quality delivered to the growers is suitable for the irrigation of existing crops.

Avocado are sensitive to salt content in the irrigation water. An evaluation of the suitability of the reclaimed water for existing crop irrigation should be performed.

2) Reclaimed water use is maximized by the growers to meet their existing water demand.

If reclaimed water is available, the growers will use as much of it as possible to meet their applied water demand. This will maximize the amount of credit the City would accrue as in-lieu recharge.

3) Reclaimed water delivery to growers would be offset by reduced pumpage from the groundwater basin.

The intent of this assumption is for growers to use recycled water instead of pumping groundwater from their wells. Otherwise, the concept of in-lieu recharge is voided, and the City would not benefit from the deliveries. In situations where a grower does not (or cannot), fully offset reclaimed water use by reducing pumpage, whether due to the overdraft condition or per negotiated agreement, the City would not take the in-lieu recharge credit.

4) The maximum permitted diversion from Morro Creek underflow is not limited to 581 acre-feet per year or 1.2 cfs maximum discharge.

Credit for in-lieu recharge is available to the City on a 1:1 basis. This credit would only be valid (from a technical perspective) when Assumption 3 above is met. Credit for in-lieu recharge will not necessarily equal the increased freshwater yield available to City wells, particularly during drought (this is discussed in the Benefits Analysis section).

Even recycled water that is economic, good quality, reliable, and delivered may not have as many customers as the available supply. This analysis assumes most Morro Valley growers are able to make long-term commitments to the City to use reclaimed water in a manner that will provide credit for in-lieu recharge. If that is not the case, the benefit to the City water supply will be lower.

City Water Supply Wells

Historically, there were eight wells in the groundwater basin that available City production records indicate were used by the City for water supply. These were wells MB-1, MB-2, MB-3, MB-4, MB-5, MB-13, MB-14, and MB-15. Well MB-5 is abandoned. Wells MB-1 and MB-2 are in the City's Corporation yard area , Well MB-13 is located in the narrows area, and Wells MB-3, MB-4, MB-14, and MB-15 form the Highway 1 (or Keiser Park) well field (Figure 1).

Other city wells include two irrigation wells serving Morro Bay High School, and a groundwater extraction well constructed during remediation activities for methyl tertiary butyl ether (MTBE) contamination that was transferred to the City several years ago (ES-1, or Flippos well). There is also a City well field along the Embarcadero towards Morro Rock that supplies seawater for the desalination plant (Figure 1).

Water Rights

City Wells MB-1, MB-2, MB-3, MB-4, MB-13, MB-14, and MB-15 operate under State Water Resource Control Board (SWRCB), Division of Water Rights Permits for Diversion and Use of Water. The current permitted maximum allocation for City groundwater production from these wells is 581 acre-feet per year (AFY; CH2M Hill, 2011 Appendix F). The maximum permitted combined flow rate from the wells is 1.2 cubic feet per second (cfs). If the City provides reclaimed water to growers in the Morro Valley that directly offsets groundwater pumping, however, it is assumed that the City's annual well field allocation of creek underflow may be increased.

Water Quality

Historically, seawater intrusion has been a problem for the City's wells during drought, including chloride concentrations at the Highway 1 well field approaching 1,000 mg/l in 1977 and 1990 (Cleath & Associates, 1993). Groundwater contamination from methyl tertiary butyl ether (MTBE)

impacted Highway 1 well field operations between 2000-2008, and elevated nitrate concentrations have also been a problem. The City has installed Brackish Reverse Osmosis Treatment to allow continued extractions from City wells in light of the degraded water quality and nitrate contamination (CH2M Hill, 2011).

City Well Pumping Capacity

In order to maximize the benefit to the City water supply, facilities in place would need sufficient capacity to pump the existing permitted maximum plus any available in-lieu recharge. The historical performance of the wells are used herein to estimate constraints on the City's maximum pumping capacity in the basin. Some of the City wells may require rehabilitation, or even replacement to achieve historical performance.

The pumping capacity estimates are not intended to be used for basin yield and do not preclude seawater intrusion; they are facilities constraints. The City wells are also shallow, and are subject to production declines during drought. Table 1 summarized the estimated pumping capacities.

Table 1
Maximum Pumping Capacity (Facilities Constraint)
City Wells in Morro Basin

City Well	Maximum Pumping Capacity (acre-feet per year)
MB-1 and MB-2	290
Highway 1 Well Field (MB-3, 4, 14, 15)	640
MB-13	110
High School irrigation wells and ES-1	300
Total	1,340

NOTE: Not a groundwater yield estimate - for facilities constraints analysis only

The combined maximum pumping capacity of all the City wells below the narrows (excluding the seawater wells) is estimated at 1,340 AFY. As noted above, these pumping capacity estimates are not groundwater yield estimates and are for facilities constraints analysis only.

Groundwater Pumping Offset Potential

CHG conducted a crop survey in August 2014 to develop an applied water use estimate for this benefits analysis. The results of the survey are shown in Figure 2 and summarized in Table 2.

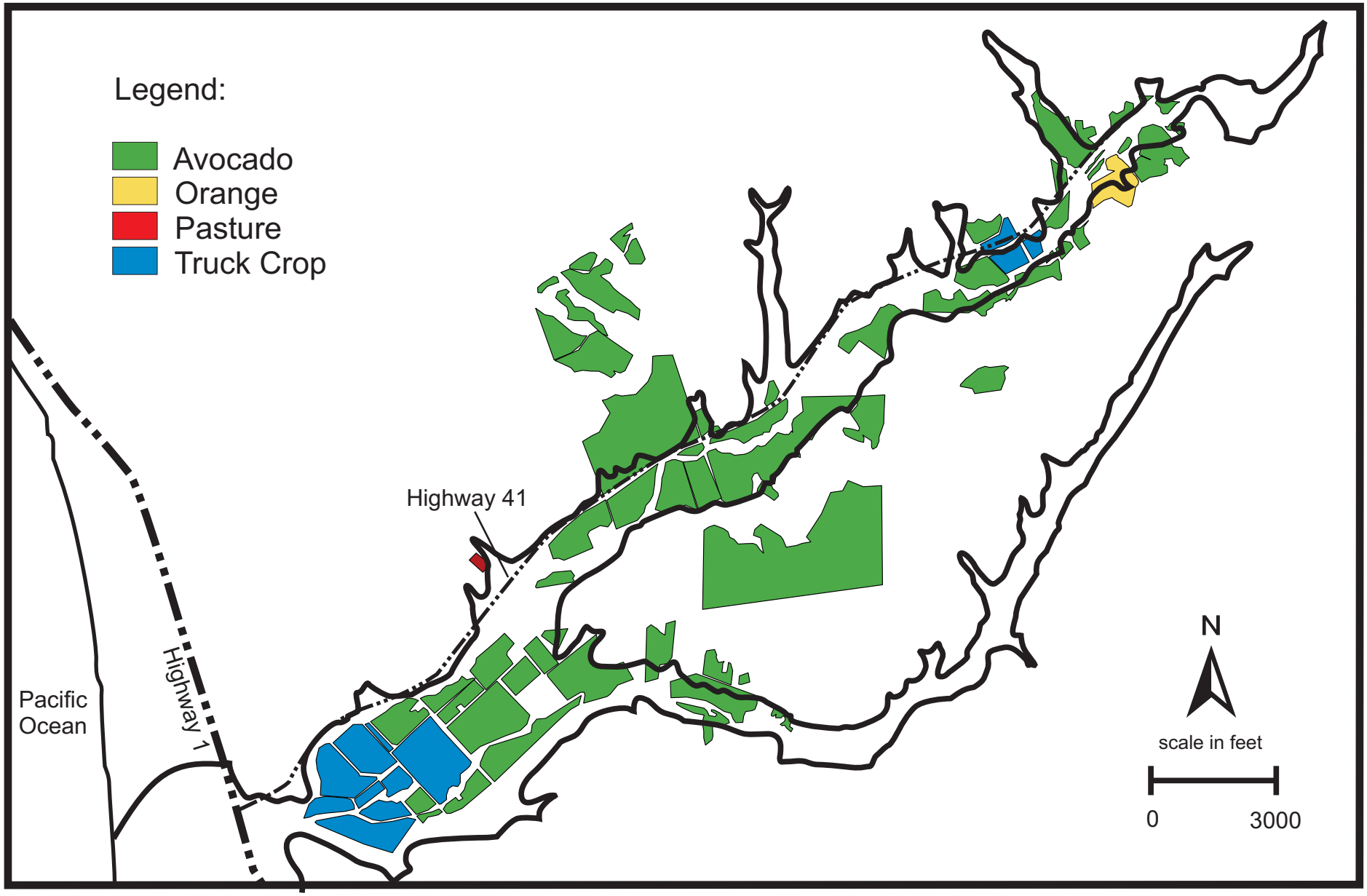
Table 2
Morro Valley Applied Water Demand - August 2014

Crop	Acres	Applied Water Factor (AF/Ac/Yr)*	Water Demand (AFY)
Citrus and Avocados	837	2	1,674
Vegetables	143	1.4	200
Pasture	2	2.9	6
Total	982		1,880

* Applied water in acre-feet per acre per year, assumes 3 vegetable crops per year, from medium demand condition on Table A1 of County Master Water Report (Carollo, 2012), except avocado and citrus water demand which is based on input from local growers.

The existing applied water demand in the Morro Valley in Table 1 is estimated at 1,880 AFY. This includes water demand for avocado orchards that are currently stumped due to the exceptional drought conditions. Up to 1.13 MGD of reclaimed water would be available to growers in the Morro Valley, equivalent to 1,265 AFY. With CSD flows, up to 1.5 MGD (1,680 AFY) of reclaimed water would be available. Variations in the reclaimed water supply are impacted by wet weather flow, which peaks in January, and does not coincide with the July peak in applied water demand.

The potential to offset groundwater pumping with reclaimed water use would be the lowest of either the monthly applied water demand or the reclaimed water supply. In order to compare the projected reclaimed water supply to irrigation demand, monthly estimates of the applied water were calculated based on the variation in local reference evapotranspiration rate from CIMIS station 160 (San Luis Obispo West). The monthly reclaimed water supply is based on monthly flow factors for 2005. The demand versus supply comparison for Morro City flows is shown in Table 3 and in Figure 3.



Field reconnaissance August 2014
using areal photograph August 2013 as base map

Figure 2
August 2014 Crop Survey
Morro Valley
City of Morro Bay

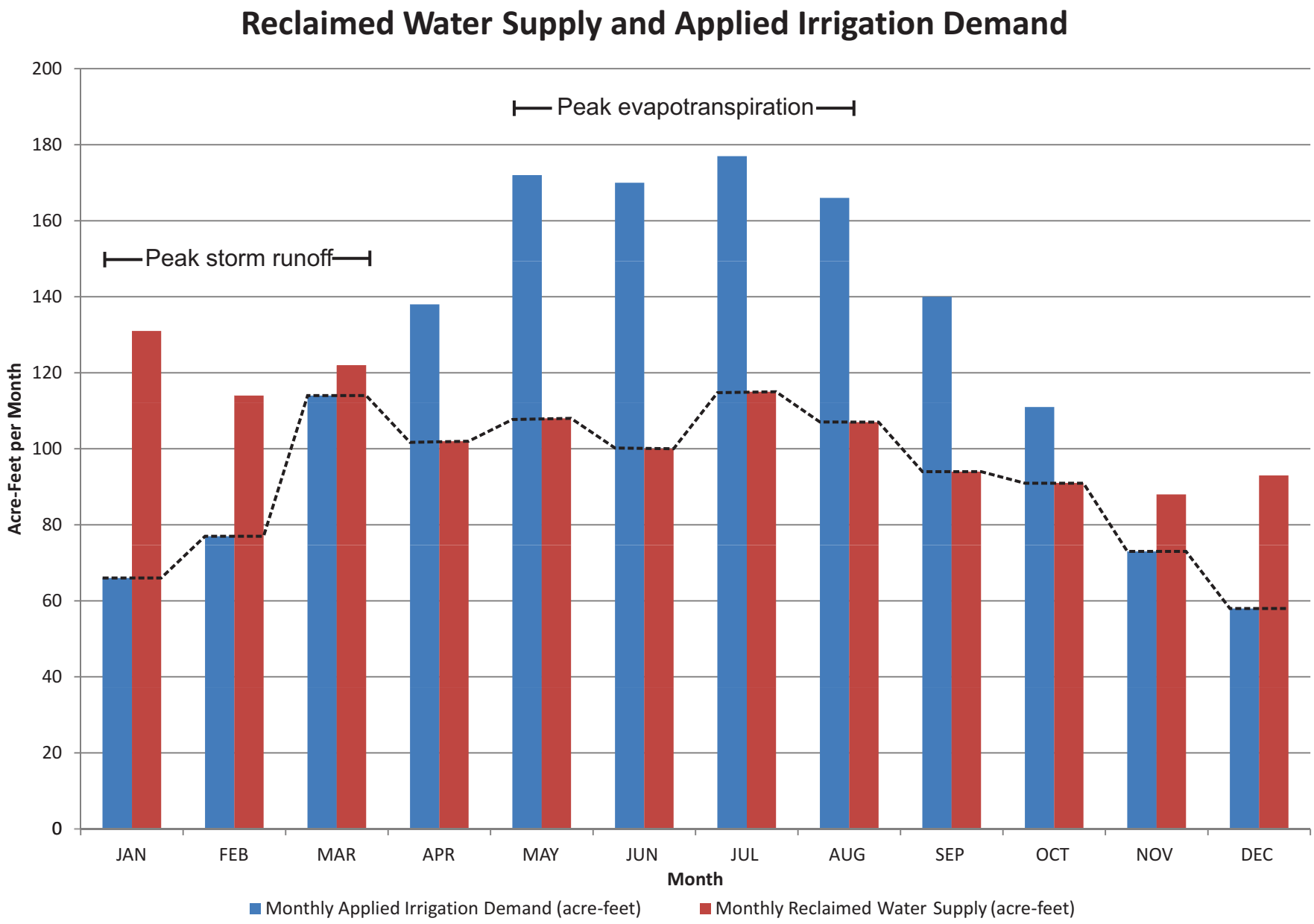
Cleath-Harris Geologists

Table 3
Morro Valley Applied Water Demand vs Reclaimed Water Supply

Month	Reference ET (inches)	Applied Water Demand (acre-feet)	Reclaimed Water Supply (acre-feet)	Groundwater Pumping Offset Potential* (acre-feet)
JAN	2.14	84	131	84
FEB	2.53	100	114	100
MAR	3.73	147	122	122
APR	4.5	177	102	102
MAY	5.63	222	108	108
JUN	5.55	219	100	100
JUL	5.78	228	115	115
AUG	5.41	213	107	107
SEP	4.56	180	94	94
OCT	3.64	143	91	91
NOV	2.37	93	88	88
DEC	1.89	74	93	74
TOTAL	47.73	1,880	1,265	1,185

NOTES: Reference ET for CIMIS Station 160 (San Luis Obispo West).
*Offset potential will vary from year to year based on actual applied water demand and reclaimed water supply.

Based on the estimates in Table 3 above, the available reclaimed water can potentially offset 1,185 acre-feet of applied water demand in the Morro Valley. When adding CSD flows, the average offset potential increases from 1,185 AFY to 1,450 AFY. The groundwater offset potential is not a fixed value but will vary from year to year based on actual applied water demand and available reclaimed water supply. As previously discussed, this is a maximum benefits analysis and assumes a high level of grower participation.



Explanation

Potential Groundwater Pumping Offset

Figure 3
Reclaimed Water Supply
and Applied Irrigation Demand
City of Morro Bay

Cleath-Harris Geologists

Basin Yield

Sustainable yield estimates developed for the Morro basin include 1,500 AFY (Cleath & Associates, 1993) and 1,529 AFY (Brown and Caldwell, 1981). In addition, Brown and Caldwell developed a long-term yield of 1,770+ AFY for normal precipitation years.

The Morro basin is in overdraft. Groundwater withdrawals exceed natural replenishment of the basin during drought periods. Under the current exceptional drought, avocado orchards are being stumped and truck crop acreage left fallow due to a shortage of water. The City wells are the farthest downstream wells in the basin, and as a result of increases in agricultural pumping, the City wells have lost a significant portion of their historical freshwater yield.

The average applied water demand for existing agriculture has been estimated at 1,880 AFY (and may range higher under dry conditions). Rural domestic water demand in the valley was previously estimated at 30 AFY in 1992 (Cleath & Associates, 1993) and has likely increased. For the purpose of this benefits analysis, the prior sustainable yield estimate of approximately 1,500 AFY appears reasonable.

Benefits Analysis

An average of 1,185 AFY, or 63 percent of applied water demand for agricultural irrigation in the Morro Valley could potentially be offset using reclaimed water from a new wastewater treatment plant based on City flows. When CSD flow are added, the potential offset is 1,450 AFY, or 77 percent of applied water demand. This offset becomes in-lieu recharge to the groundwater basin.

Not all of the in-lieu recharge credit would necessarily be available to City wells. As indicated earlier, the hydrologic balance equation is: groundwater basin inflow = groundwater basin outflow + change in storage. Using the concept of in-lieu recharge, reclaimed water may be represented by an increase in basin inflow. This results in an increase to groundwater in storage and/or an increase in basin outflow (to Morro Creek and the ocean). Conversely, if reclaimed water is represented by a reduction in outflow (from wells), then the result of the hydrologic balance is an increase in storage and/or a decrease in basin inflow. Generally speaking, the potential for increasing outflow and reducing inflow increases as a basin fills up. The basin narrows (Figure 1) also restricts subsurface underflow from the upper basin to the area where the City's wells are located, and the primary mechanism for transferring in-lieu recharge is expected to be stream flow. The potential change in storage must be accounted for when estimating available in-lieu recharge.

During drought, pumping depressions expand and carry over from year to year because of lower than normal recharge to the aquifer. A significant portion of the in-lieu recharge would be needed to fill storage declines upstream of the narrows before any benefits are available to downstream users.

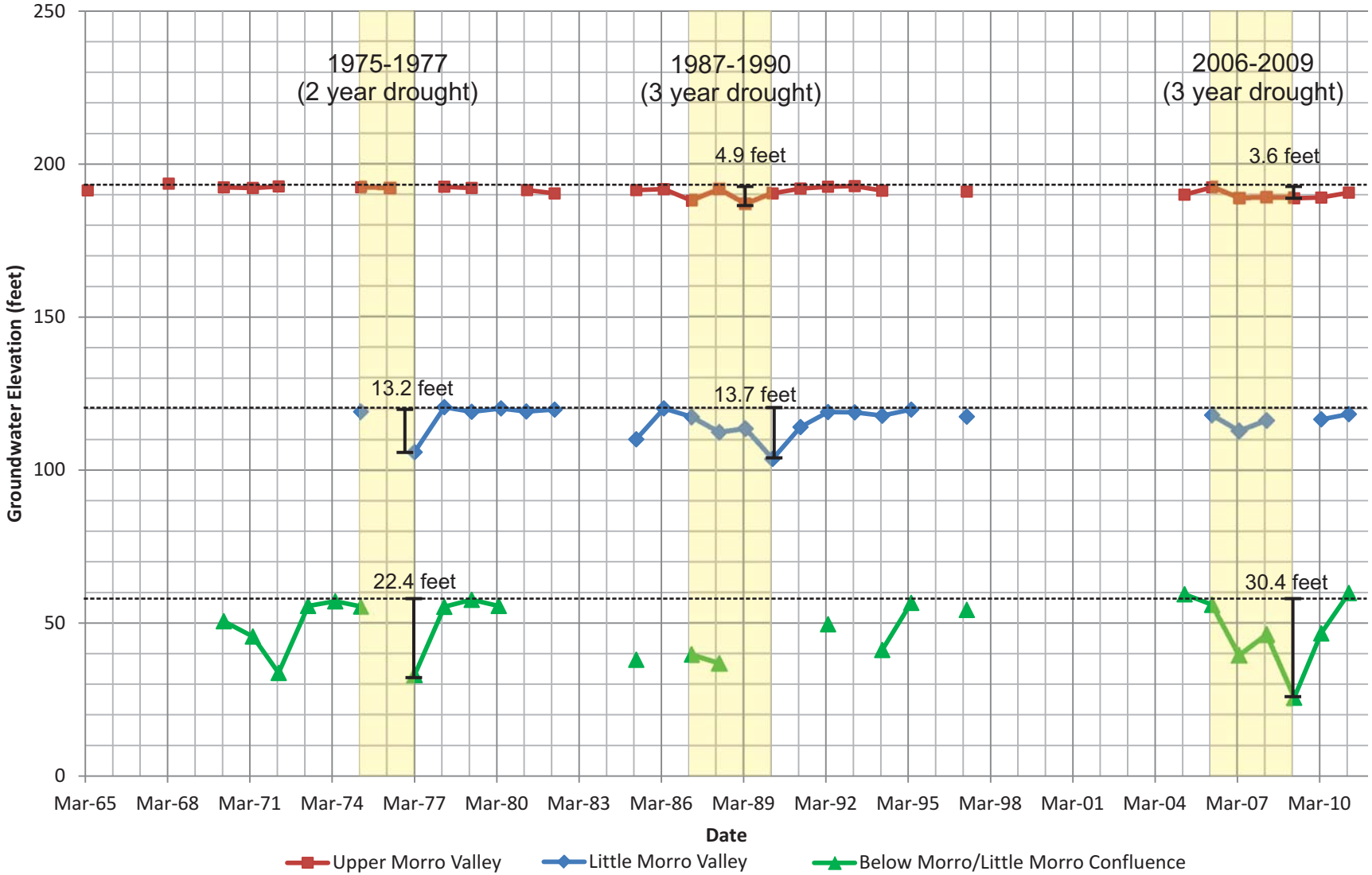
Groundwater storage declines during drought have been estimated based on the basin area, water level hydrographs, and specific yield. Spring water level declines during drought appear to increase from upstream to downstream, ranging from 5 feet in the upper reaches of the Morro Valley to approximately 30 feet in the lower valley upstream of the narrows (Figure 4). The declines are typically cumulative over two or three drought years. For the purposes of this analysis, an average water level decline of 18 feet over three years, or 6 feet per year, is assumed under drought conditions upstream of the narrows.

During normal or wet periods under the current condition, available water level hydrographs show basin storage above the narrows returns to a full condition almost every year. Therefore, little or no use of in-lieu recharge would be needed to fill the basin. Additional stream flow, together with increased subsurface outflow through the narrows, would take place on an annual basis and be available to benefit the City water supply. City water demand typically peaks in the summer and fall, however, while stream flow peaks in the winter. Even in normal years, extending the duration of base flow between the upper basin and the lower basin may be necessary to avoiding seawater intrusion, due to the limited lower basin storage and proximity of City wells to the ocean. The duration of flow becomes more critical as the yield of the City wells increase. As a conservative measure to assist extending the duration of base flows, a nominal two feet of water level decline upstream of the narrows is assumed to be offset by in-lieu recharge during normal years.

The basin upstream of the narrows covers approximately 890 acres. Assuming an average annual decline during drought of 6 feet, and an average specific yield of 10 percent, the resulting storage loss under current conditions would be 535 AFY. Both storage loss and overdraft need to be mitigated before water can flow through the narrows and benefit City wells. As previously discussed, the Morro basin yield is assumed to be 1,500 AFY during drought (the sustainable yield), and 1,770+ AFY during normal to wet years. These yield values provide a basis for estimating the available water for City wells under current conditions, so that the relative benefit of the project can be determined.

Assuming 1,185 AFY offset potential from City reclaimed water, 535 AFY is deducted for changes in storage and 330 AFY deducted for overdraft (benefit to growers), an estimated 320 AFY of in-lieu recharge would flow through the narrows and be available to benefit the City wells during drought. In normal to wet years, up to 180 AFY of in-lieu recharge would be needed to offset potential storage decline in the upper basin, along with an estimated 110 AFY of overdraft, leaving 895 AFY of available benefit to the City. With CSD reclaimed water added to the project, the resulting maximum potential benefit to the City water supply is estimated at 585 AFY during drought years, and 1,160 AFY during normal to wet years. The benefit to the City water supply from using reclaimed water in the Morro Valley is summarized in Table 4 below.

Spring Water Levels
Morro Basin above Narrows



Explanation

13.2 feet

Spring groundwater elevations
with drought period decline in feet

Figure 4
Spring Water Levels
Morro Valley
City of Morro Bay

Cleath-Harris Geologists

Table 4
Maximum Potential Project Benefit
Morro Valley Reclaimed Water Use

Scenario	Description	Drought Years	Normal to Wet Years
		(acre-feet per year)	
Current Conditions	Basin Yield	1500	1,770+
	Ag Water Demand	1,880*	
	City Yield	0 (-330 deficit)	0 (-110 deficit)
Project with City Reclaimed Water (1.13 MGD)	In-Lieu Credit	1,185	
	Storage Adjustment	535	180
	City Yield	320	895
	Project Benefit	320	895
Project with City and CSD Reclaimed Water (1.5 MGD)	In-Lieu Credit	1,450	
	Storage Adjustment	535	180
	City Yield	585	1,160
	Project Benefit	585	1,160

NOTE: City yield from Morro Creek underflow without seawater intrusion.
Project benefits will vary from year-to-year, and will be less if assumptions are not met.
*Ag water demand value is average and will typically be greater in dry years than in normal to wet years

Groundwater in not available to the City from the Morro basin, under the current overdraft conditions, without inducing seawater intrusion. This is because the City wells are the farthest downstream wells in the basin, and are therefore the last to receive inflow from stream seepage, which is the primary source of basin recharge.

Under the City reclaimed water project (1.13 MGD), some of the current 581 AFY permitted diversion will be restored during drought years (320 AFY yield), and during normal to wet years the average City yield would increase to 895 AFY. Under the City and CSD reclaimed water project (1.5 MGD), all of the current 581 AFY permitted diversion will be restored during drought years (585 AFY yield), and during normal to wet years the average City yield would increase to 1,160 AFY. Comparing the project's City yield with the maximum pumping capacity at City wells in Table 1 indicates the City has the facilities to produce the increased yield (some rehabilitation or well replacements may be required).

Environmental Water Supply Benefit

Siting the new City wastewater plant in the Morro Valley and providing reclaimed water for irrigated agriculture would provide more water for environmental demand. Under project conditions, groundwater levels in the Morro Valley would be maintained at higher levels, resulting in periods of greater stream flow. Extending the duration of base flow is expected to be an important mechanism for transferring in-lieu recharge from the upper valley through the narrows and toward the City wells. Not all of the in-lieu recharge will become available to the City, and a portion will contribute to the riparian habitat.

Management Strategies

A reclaimed water project of this magnitude will require cooperation between the City, other public agencies, and private stakeholders. A detailed discussion of potential management strategies are beyond the scope of this analysis. However, the difference in Table 2 between the available reclaimed water supply and the applied water demand supports the use of agricultural reservoir storage capacity to effectively increase the utilization of reclaimed water.

Morro Valley Benefits Summary

The City wells are the farthest downstream wells in the basin, and have lost a significant portion of their historical freshwater yield. Providing reclaimed water to growers in the Morro Valley would reduce agricultural pumping and provide in-lieu recharge to the groundwater basin. This would restore the freshwater yield during drought years and increase the yield during normal to wet periods, in addition to providing water for environmental demand. The maximum project water supply benefit with CSD participation is estimated at 585 AFY during drought and 1,160 AFY during normal to wet years. These are maximum anticipated benefits, and would require a high level of grower participation in the reclaimed water program.

Chorro Valley and Morro Valley Benefits Comparison

A concurrent benefits analysis of a 1.5 MGD wastewater project in the Chorro Valley has been performed (CHG, 2014). Table 5 compares the potential benefits to the City water supply from the Chorro Valley project with the potential benefits from the Morro Valley project.

Table 5
Maximum Project Benefit Comparison
Chorro Valley versus Morro Valley

Item Compared	**Chorro Valley (1.5 MGD)**	**Morro Valley (1.13 MGD)**	**Morro Valley (1.5 MGD)**
City water supply increased yield: Drought years	900 AFY	320 AFY	585 AFY
City water supply increased yield: Normal to wet years	515 AFY	895 AFY	1,160 AFY
Critical Assumptions*	Water Rights Permit Revision	Water Rights Permit Revisions, Overdraft Estimate, Program Participation	
Other benefits	Env. Demand	Agriculture Users + Env. Demand	

NOTE: The benefit is defined as the increased yield at City wells between current conditions and project conditions.

The Chorro Valley project has a greater potential for benefit to the City water supply during drought years, while the Morro Valley project has a greater benefit potential during normal to wet years. Water rights permit revisions would be needed in both Chorro Valley and Morro Valley to obtain the maximum benefit potential. There are additional critical assumptions involved in the Morro Valley analysis, changes to which would mostly result in the partial transfer of benefit from the City water supply to the agricultural water supply. Both projects would provide more water for environmental demand, and the Morro Valley project would also benefit local growers.

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Appendix H

Letter from California Coastal Commission
to City of Morro Bay
December 2, 2014

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

December 2, 2014

David Buckingham
City Manager
City of Morro Bay
955 Shasta Avenue
Morro Bay, Ca 93442

Subject: Morro Bay Water Reclamation Facility

Dear Mr. Buckingham:

Thank you for the opportunity to participate in the process of identifying the most suitable location for development of the new Water Reclamation Facility (WRF). We have been very encouraged by the diligent efforts undertaken by the City of Morro Bay in the time since the Commission's denial of the previous project to find a new location for the WRF. As you know, we have actively participated all along, and the relocation of the WRF to an inland location with less potential for coastal resource impacts and more potential for beneficial reuse, and the possibilities it opens up with respect to reuse of the current waste water treatment plant site, provide an excellent example for other local governments throughout the state and nation of how to address public works projects in hazardous areas, including as adaptation strategies in light of global climate change and sea level rise along the coast. The City should be strongly commended for its commitment to good public policy and planning, and its forward thinking mentality both in that respect and in terms of what a WRF can provide to a community like Morro Bay.

We have reviewed the November 7, 2014 comparative site analysis of the California Men's Colony (CMC) and Rancho Colina locations, the two sites determined through prior analysis to be the most favorable for development of the WRF. According to the report, both sites offer coastal resource benefits. In particular: both sites are far from the shoreline and separated by intervening topography, so a new WRF at either location will not be visible from the shoreline, and localized view impacts would appear readily addressable; neither site is subject to significant coastal hazards such as flooding and sea level rise because of their respective elevations and distances from the shoreline; while there is ESHA on the margins of both sites, the developable portions of the sites are not within the areas designated as ESHA; and, neither site supports known cultural resources, although pipeline infrastructure from the Rancho Colina site would traverse a known cultural resource area that may require some mitigation measures.

While we have not yet reviewed all of the details associated with the two sites, based on the information contained in the comparative site analysis and what we currently understand, the long-term benefits of siting the WRF at the Rancho Colina site, including groundwater basin replenishment and reduced reliance on State Water, appear to make it a better choice to pursue than the CMC site. In addition, the increased likelihood of the implementation of green

technologies at the Rancho Colina site along with the fact that it is substantially closer to the City's existing infrastructure network and would require less energy, equating to lower greenhouse gas emissions, also weigh in its favor. We acknowledge that this is a preliminary evaluation, but wanted to make sure we provided you with our input as the City Council considers which option to focus on for the next stage of review. In any case, we look forward to continuing to work with the City to further evaluate and identify the best possible WRF site and WRF facility, and we are excited to be a partner with the City in its efforts to develop a WRF project that has the potential to be a prime example for the entire state and the nation of how to address aging infrastructure in constrained areas along the shoreline. If you have any questions or would like to discuss this further, please do not hesitate to contact me.

Sincerely,

Justin Buhr

Justin Buhr
Coastal Planner
Central Coast District Office

AGENDA NO: D-1

MEETING DATE: December 9, 2014

Staff Report

TO: **Honorable Mayor & City Council** **DATE: November 26, 2014**

FROM: **Joseph W. Pannone, City Attorney**

SUBJECT: **Introduction and First Reading of Ordinance No. 591 - "An Ordinance of the City Council of the City of Morro Bay Amending Section 3.40.060 of the Morro Bay Municipal Code Regarding the City's Recovery of Costs Relating to Driving, Boating or Flying Incidents While Under the Influence of Drugs or Alcohol"**

RECOMMENDATION

Staff recommends the City Council take public testimony, move to waive reading of Ordinance 591 in its entirety and introduce for first reading by number and title only, Ordinance No. 591.

ALTERNATIVES

This is an administrative action for consistency between the Morro Bay Municipal Code and California Government Code; as such, staff is not recommending any alternatives.

FISCAL IMPACT

There is potential to increase cost recovery for the City.

BACKGROUND/ DISCUSSION

Section 3.40.060 of MBMC governs cost recovery for the City when the City incurs costs as a result of incidents related to driving, boating or flying under the influence of drugs or alcohol. That section was adopted when the California Government Code ("Cal. Gov. Code") section 53155 limited the amount of that recovery to $1,000. Section 53155 has been amended to increase the amount of total recovery the City may seek to $12,000 per incident. As such, it is recommended the City Council amend MBMC section 3.40.060 to increase the recovery amount to $12,000 to be consistent with the limit established by Cal. Gov. Code section 53155.

CONCLUSION

Staff recommends the City Council introduce Ordinance No. 591 for first reading, by number and title only and waive further reading.

Prepared By: __JWP____ **Dept Review:_____**

City Manager Review: _____

City Attorney Review: __JWP___

ORDINANCE NO. 591

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORRO BAY, CALIFORNIA AMENDING SECTION 3.40.060 OF THE MORRO BAY MUNICIPAL CODE REGARDING THE CITY 'S RECOVERY OF COSTS RELATING TO DRIVING, BOATING OR FLYING INCIDENTS WHILE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, Morro Bay Municipal Code ("MBMC") section 3.40.060 governs cost recovery for the City when the City incurs costs as a result of incidents related to driving, boating or flying under the influence of drugs or alcohol; and

WHEREAS, the California Government Code ("Cal. Gov. Code") section 53155 has been amended since the City's adoption of Section 3.40.060 to increase the amount of total recovery the City may seek from $1,000 per incident to $12,000; and

WHEREAS, the City Council seeks to amend Section 3.40.060 to be consistent with Cal. Gov. Code section 53155.

NOW, THEREFORE, the City Council of the City of Morro Bay does ordain as follows:

SECTION 1. Section 3.40.060 of the Morro Bay Municipal Code shall be amended in its entirety to read as follows:

> **"3.40.060 - Limitation of costs.**
> All response costs which the City may recover related to incidents for driving, boating or flying under the influence shall not be in excess of Twelve Thousand Dollars for each incident as specified in Government Code section 53155. The City shall have the option to pursue any other legal remedies for recovery when such costs exceed Twelve Thousand Dollars per response."

SECTION 2: This Ordinance shall take effect 30 days after its adoption. The City Clerk, or her duly appointed deputy, shall attest to the adoption of this Ordinance and shall cause this Ordinance to be published and posted in the manner required by law.

INTRODUCED at a regular meeting the of the City Council of Morro Bay, held on the 9th day of December, 2014 by motion of Councilmember _____, seconded by Councilmember _____.

PASSED AND ADOPTED on the ____ day of ____ , 2015, by the following vote:

AYES:
NOES:
ABSENT:

_____
JAMIE L. IRONS, Mayor

ATTEST:

_____
JAMIE BOUCHER, City Clerk

APPROVED AS TO FORM:

_____
JOSEPH W. PANNONE, City Attorney