
CITY OF MORRO BAY CAYUCOS SANITARY DISTRICT

WASTEWATER TREATMENT PLANT UPGRADE PROJECT DRAFT ROUGH SCREENING ALTERNATIVE SITES EVALUATION

JPA Meeting

September 8, 2011

Morro Bay Community Center

1001 Kennedy Way

Morro Bay, CA



DUDEK

Coastal Commission Process Overview

Past Actions

- **December 2008** – Regional Water Quality Control Board and MBCSD Settlement Agreement for Plant Upgrade to Full Secondary Treatment
- **January 11, 2011** – Final EIR Adopted and Coastal Development Permit Approved by City Council on Appeal
- **January 18 - 31, 2011** – Coastal Commission (CCC) Appeals Filed
- **March 11, 2011** – CCC Hearing & Finding of Substantial Issue
- **June 27 & 28, 2011** – Public Workshops to Review/ Comment on Work Plan, Identify Potential Alternative Sites, and Discuss Proposed Criteria for Draft Rough Screening Analysis
- **August 25, 2011** – Meeting with CCC Staff to Discuss Work Plan, Alternative Sites Identified, and Fatal Flaw Preliminary Results

Coastal Commission Process Overview

Current Actions

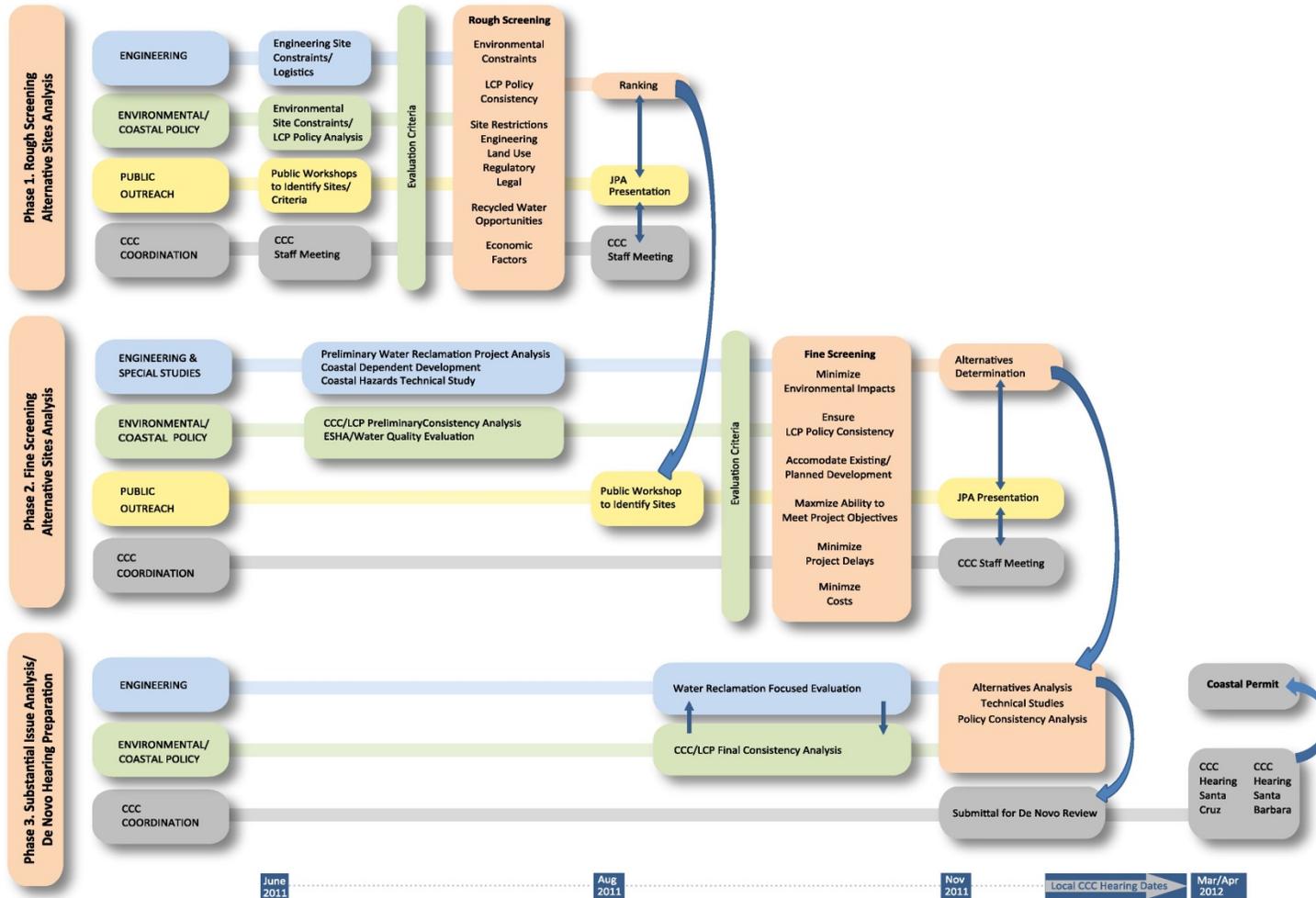
- **Conduct Robust Alternative Sites Analysis & Commence Additional Technical Studies**
 - **Phase 1 – Draft Rough Screening Alternative Sites Evaluation**
 - Fatal Flaw Assessment of Potential Alternative Sites Identified Through Public Input and Site Evaluation

Next Steps

- **Prepare for Coastal Commission De Novo Review**
 - **Phase 2 – Fine Screening Alternative Sites Evaluation**
 - Detailed Analysis of Potential Alternative Sites Identified Through Rough Screening Evaluation, Additional Site Evaluation and Technical Study
 - **Phase 3 – De Novo Review Analysis**
 - Prepare Coastal Act/LCP Policy Consistency Analysis Based on Results of Alternative Sites Evaluation and Additional Technical Study Findings
 - Water Reclamation Feasibility Findings
 - Additional Site Specific Coastal Hazard Assessment
 - Other Potential Policy Issues Raised During Alternative Sites Evaluation
 - **Project Presentation at Next Local CCC Hearing March/April 2012**

Alternative Sites Evaluation Work Plan

COASTAL COMMISSION APPROVAL PROCESS – DUDEK WORK PLAN



Draft Rough Screening Alternative Sites Evaluation

Alternative Sites Considered

- 8 sites identified during prior EIR and CCC Appeals public processes
- 9 additional sites identified through public input received at the June 27 & 28 public workshops and associated review period (June 15 – July 14, 2011)
- Of 17 total sites proposed, 11 were carried forward for additional Rough Screening analysis based on a Fatal Flaw Assessment

Draft Rough Screening Alternative Sites Evaluation

Fatal Flaw Assessment

▪Defined as:

An underlying site condition or restriction, such as policy or regulatory prohibitions for new development, presence of unmitigable environmentally sensitive resources, or other such circumstance that would reasonably inhibit the MBCSD's ability to develop a site/s with a WWTP.

▪Three fatal flaws determined in conjunction with MBCSD and CCC staff:

1. Do the sites contain prime agricultural land, as defined by the Coastal Act, over the entirety of the site? (3 sites dismissed)
2. Are environmentally sensitive habitat areas (ESHA) and related buffers located on-site that are unavoidable, making the site undevelopable? (0 sites dismissed)
3. Does the 100-year flood hazard zone and/or other inundation zone cover the entirety of the site or its developable area? (3 sites dismissed)



0 0.5 1 Miles

| Map # | Site Name | Map # | Site Name |
|-------|--------------------------------|-------|--|
| 1 | Current WWTP Site | 9 | Panorama Street Site |
| 2 | Chorro Valley Site | 10 | Rancho Colina Site |
| 3 | Whale Rock Site | 11 | Lila Keiser Park Site |
| 4 | Highway 41/ Madonna Property | 12 | California Men's Colony (CMC) Wastewater Facility Site |
| 5 | Chevron Oil Facility | 13 | Power Plant Hillside Tank Farm Site |
| 6 | Hayashi or Giannini Properties | 14 | Additional Highway 41 Properties (Multiple APNs) |
| 7 | Power Plant Site | 15 | 1/2 Mile Up Toro Creek Road (Chevron Facility Hillside Site) |
| 8 | PG&E / City Property | 16 | 1 Mile Up Atascadero Road (Righetti Property) |
| | | 17 | APN 068-401-011 (Additional Giannini Property) |

City of Morro Bay Sanitary District Service Area
 Cayucos Sanitary District Service Area

Figure 6

Alternative Sites Carried Forward for Further Evaluation

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MORRO BAY-CAYUCOS SANITARY DISTRICT WASTEWATER TREATMENT PLANT UPGRADE

Draft Rough Screening Alternative Sites Evaluation

Criteria Weighting and Site Ranking

- Equal weighting applied to all criteria identified for environmental, LCP policy, land use, logistical, and site constraints considerations.
- A site was determined to be either:
 - Unconstrained by the criterion, and consistent (indicated by a “+”); or
 - Constrained, and potentially inconsistent (indicated by a “-”).
- Sites with the greatest number of consistent criteria were ultimately ranked above those with the least consistency.
- Economic considerations applied to similar ranked sites to determine which would move forward through Fine Screening.

Draft Rough Screening Alternative Sites Evaluation

Environmental/ Local Coastal Program Policy Criteria Screening Results

▪ 13 Criteria Considered

- ESHA/Biological Resources
- Water Quality
- Coastal Priority Land Uses
- Coastal Dependent Development
- Floodplain
- Shore Development/ Coastal Hazards
- Public Access/ Restoration
- Visual Resources
- Agriculture
- Cultural Resources
- Sustainable Use of Public Resources
- Land Use Compatibility (Air, Noise, Traffic)
- Energy Consumption/ Greenhouse Gas Emissions

▪ Top Ranked Sites

- **Site 13 – Power Plant Hillside Tank Farm** (6 consistent criteria)
- **Site 1 – Current WWTP** (5 consistent criteria)
- **Site 2 – Chorro Valley Site** (4 consistent criteria)
- **Site 12 – CMC Wastewater Facility** (4 consistent criteria)
- **Site 15 – Chevron Facility Hillside Site** (4 consistent criteria)

Draft Rough Screening Alternative Sites Evaluation

Logistics/ Site Constraints Criteria Screening Results

■ 10 Criteria Considered

- **Land Use Designation**
 - Consistent with General Plan
 - Consistent with LCP Land Use Plan
- **Zoning Designation**
 - Consistent with Zoning
 - Consistent with Coastal Zoning Ordinance
- **Regulatory Restrictions**
- **Site Accessibility**
- **Site Availability**
- **Implementation**
- **Additional Site Requirements**
 - Soil/Water Remediation Issues (Hazardous Waste Contamination)
 - Steep Topography/ Excessive Grading

■ Top Ranked Sites

- **Site 1 – Current WWTP** (10 consistent criteria)
- **Site 12 – CMC Wastewater Facility** (8 consistent criteria)
- **Site 2 – Chorro Valley Site** (7 consistent criteria)
- **Site 16 – Righetti Property** (7 consistent criteria)

Draft Rough Screening Alternative Sites Evaluation

Engineering Constraints/Considerations

■ Baseline Assumptions

- Only siting of facility considered, not treatment technology/ies
- Minimum site requirement of 5 acres of contiguous, low-slope area could accommodate any plant and/or treatment technology
- Existing collection system would remain in service, including terminus at existing WWTP site
- For any alternative site, a new pump station and forcemain required

■ Disposal Options Receiving Preliminary Review

- Existing ocean outfall – potentially feasible at all sites
- Groundwater recharge – most likely infeasible at all sites due to aquifer characteristics & number of drinking water wells in proximity
- Live stream discharge – potentially feasible at sites nearest creeks
- Land application (irrigation/percolation ponds/constructed wetlands) – infeasible at all sites due to soil & area constraints

Draft Rough Screening Alternative Sites Evaluation

Engineering Constraints/Considerations

▪ Recycled Water Feasibility

- All sites could support implementation of a recycled water program; only difference is proximity to potential customers and a new distribution system

▪ Relative Economic Feasibility Criteria Screening Results

• 2 Criteria Considered

- Length of forcemain required to convey flows
- Energy requirements/ power usage required for pumping needs

• Top Ranked Sites

- Site 1 – Current WWTP (lowest cost)
- Site 7 – Power Plant Site
- Site 16 – Righetti Property

Draft Rough Screening Alternative Sites Evaluation

Results of All Screening Criteria / Alternative Site Recommendations for Fine Screening Evaluation

- **Site 1 – Current WWTP** (15 consistent criteria)
- **Site 15 – Chevron Facility Hillside Site** (10 consistent criteria)
- **Site 16 – Righetti Property** (9 consistent criteria)

- **Although closely ranked, economic considerations ultimately found developing a WWTP at these sites cost-prohibitive due to the amount of piping needed to convey flows, and energy for pumping:**
 - Site 12 – CMC Wastewater Facility
 - Site 13 – Power Plant Hillside Tank Farm
 - Site 2 – Chorro Valley Site
 - Site 5 – Chevron Oil Facility

Public Involvement – Next Steps

- **Next Public Workshop:**

Monday, September 19, 2011

6:00 PM to 8:00 PM

**Cayucos Veterans Hall located at
10 Cayucos Drive, Cayucos, CA 93430**

- **Public Comment Period Ends: Friday, September 30, at 5:00 PM.**
- **Electronic comments may also be provided at the following URL:**
www.morro-bay.ca.us/wwtpupgrade

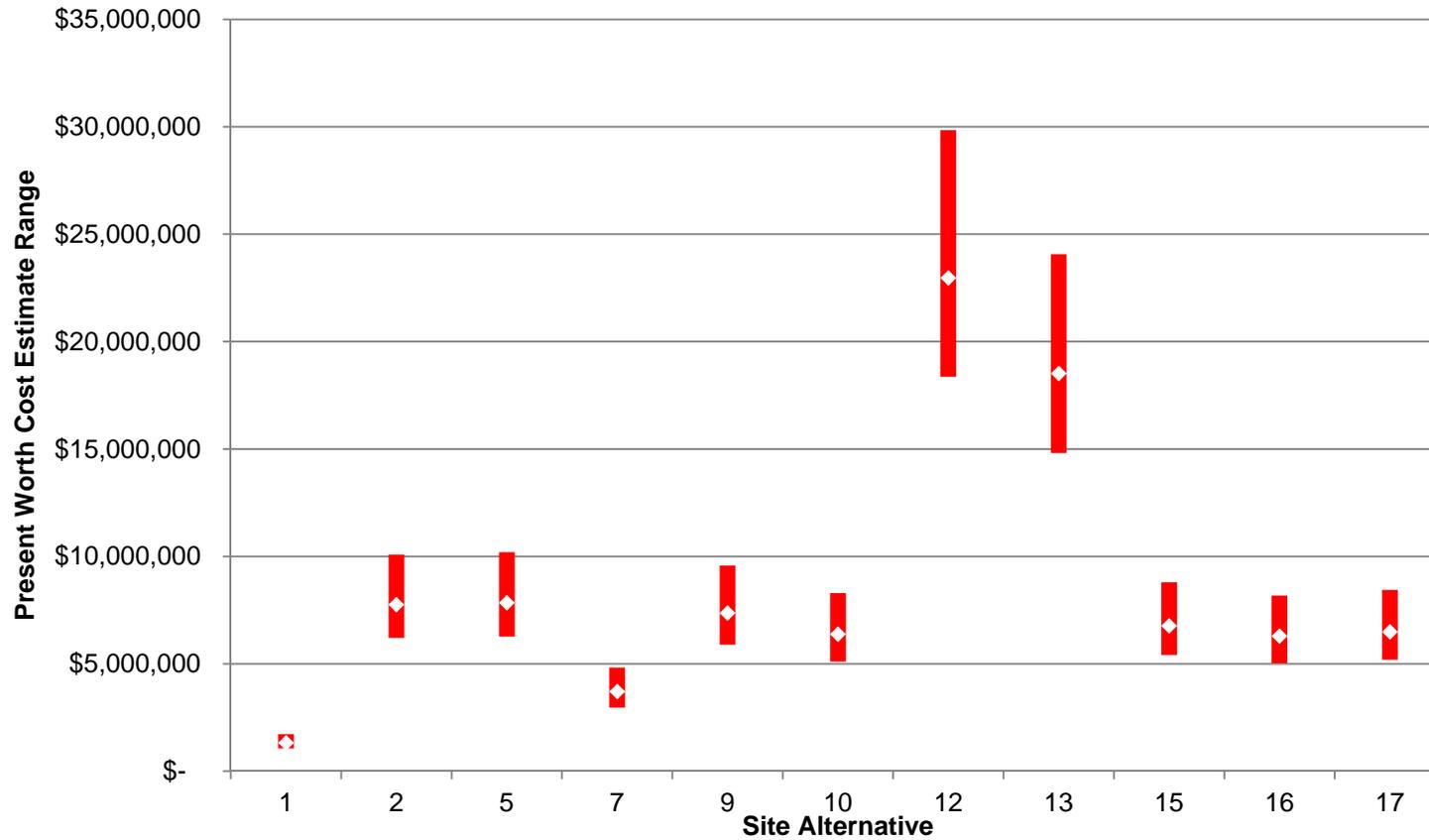


Figure 9. Probable Present Worth Cost Range for Conveyance (not including WWTP)