

City of Morro Bay

Stormwater Annual Report

February 2011 – February 2012

Year 3



Submitted: June 1, 2012



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ANNUAL REPORT

General Permit for the Discharger of Storm Water from Small
Municipal Separate Storm Sewer Systems (General Permit)

A. Permittee Information

Check box if this is a new name, address, etc.

1. Permittee (Agency Name): City of Morro Bay
2. Contact Person: Damaris Hanson
3. Mailing Address: 955 Shasta Ave
4. City, State and Zip Code: Morro Bay, California 93465
5. Contact Phone Number: 805-772-6265
6. WDID # 3 40MS04032
7. Have any areas been added to the MS4 due to annexation or other legal means? YES NO
8. Are you subject to the Design Standards contained in Attachment 4 of the General Permit? YES NO

Section B. Reporting Period: Permit Coverage was achieved on February 17, 2009

(Annual Report is due by June 1st each year)

- February 1, 2009 to February 28, 2010
- February 1, 2010 to February 28, 2011
- February 1, 2011 to February 28, 2012
- February 1, 2012 to February 28, 2013
- February 1, 2013 to February 28, 2014

Executive Summary

The City of Morro Bay's Stormwater Management Program (SWMP) was developed in compliance with enrollment procedures under the National Pollutant Discharge Elimination System (NPDES) General Permit for the discharge of stormwater from small Municipal Separate Storm Sewer Systems (MS4) General Permit. The SWMP is a comprehensive program to establish and implement Best Management Practices (BMPs) that reduce the discharge of stormwater pollutants into water bodies and to protect and improve water quality within the City of Morro Bay. The City's SWMP was approved by the Central Coast Regional Water Quality Control Board (CCRWQCB) on February 17, 2009 (WDID # 3 40MS04032) at which time the City was granted permit coverage under the NPDES Small MS4 General Permit Water Quality Order No. 2003-0005 DWQ. On May 25th 2010 the Central Coast Water Board staff approved the May 20, 2010 version of the SWMP pursuant to General Permit Section D.

The Annual report is organized by each of the six Minimum Control Measures (MCM). Each Best Management Practice (BMP) provides:

- A description of the BMP
- The measurable goal
- How the measurable goal was achieved, including a statement whether or not the Measurable goal was achieved
- The effectiveness assessment
- Any proposed changes and a short summary of the activities for next permit cycle.

In an attempt to simplify the Annual Report review by the Water Board the City has not included examples of checklists, Inspections etc. Many of these were submitted in the year one annual report and if the Water Board staff would like a copy of any of these items they will be made available.

In addition to the requirements in the General Permit, the RWQCB issued specific requirements for the Post-Construction MCM to protect beneficial uses and promote healthy watersheds to meet the Maximum Extent Practicable (MEP) standard.

On October 20, 2009, the RWQCB notified MS4s in the Central Coast region of the opportunity to participate in a Joint Effort to cooperatively develop hydromodification control criteria with other MS4s. The Joint Effort provides an alternative to the requirements for developing interim and long-term hydromodification criteria independently as outlined in the February 15, 2008 letter from the RWQCB. The Joint Effort is a two phase approach that is expected to span a period of two years. The Joint Effort includes both technical objectives and administrative activities. Two phases comprise the technical objectives for the project:

- Phase I: developing an appropriate methodology for selecting numeric criteria that ensure the protection of watershed processes, to the extent possible, at the parcel-scale,
- Phase II: applying the methodology on a city-by-city, county-by-county basis, to establish numeric criteria in each jurisdiction.

The City chose to participate in the Joint Effort to Develop Hydromodification Control Criteria on December 1, 2009, and amended the Post-Construction MCM to include the BMPs and Measurable Goals required for all Joint Effort participants for the first phase of the Joint Effort. The Revised SWMP, updated in May 2010, includes these required BMPs.

Highlights for Permit Year 3

In permit year three the City has continued to make great progress in developing its stormwater program. Some of the many highlights to the City's program include: the City has put a lot of energy into keeping up with the regional Joint Effort to develop a Hydromodification Management Plan and Low Impact Development. In doing so the City has participated in the Tier 3 subcommittee which developed Interim hydromodification control criteria to be applied to new or redevelopment. The City has updated the municipal code to include an illicit discharge ordinance. With this ordinance update the City also incorporated the hydromodification and LID requirements and the Attachment 4 requirements into the Engineering Standards. These new requirements have been applied to all applicable projects. In permit year three there were 15 projects subject to the hydromodification and LID requirements and two projects subject to the attachment 4 requirements. The City put a lot of effort into inspecting the restaurants along the Embarcadero for various BMPs. The City focused our efforts along the Embarcadero due to the proximity to the Bay. The goal this year was educating the restaurants on proper BMPs and less on enforcement. We have found that education goes a long way, typically these business owner want to do the right thing, sometimes just need some assistance finding the right solution.

Major Challenges for permit year 3:

Effectiveness Measures. This area of the reporting is difficult to assess. The City has made the best attempt possible to strive for the highest level of effectiveness in BMP where it is possible. The City has reached level 4: Reducing Loads, in several BMP this permit year. The area where it is most difficult reaching a higher level than Level 1: Documenting Activities is in the Public Education section. The City will continue to explore options to reach a higher level. The Partners for Water Quality group is also attempting to "tackle" this challenge since this is a challenge for all Phase II permit holders. Also incorporating community based social marketing has been a difficult challenge for the City.

MINIMUM CONTROL MEASURES

PUBLIC EDUCATION AND OUTREACH

PE1: Participate in San Luis Obispo Partners for Water Quality

BMP Description:

Use collaborative regional partnerships (“SLO County Partners for Water Quality”) to leverage shared resources to distribute stormwater pollution prevention public education and outreach information, materials, and activities throughout the City. Target audiences include, but are not limited to: General Public, Residential, Commercial Business, Industrial, Construction, Development, Municipal and Quasi-governmental agencies, as well as Tourists, and School Age Children. Topics to be covered are described in the BMPs below.

Measurable goal:

PE1A: Participate in SLO County Partners for Water Quality Meetings held each year for planning and evaluating the status and performance of the stormwater pollution prevention public education and outreach programs within the County and for sharing information about what is working or not working. If a staff member can not make the meeting staff will stay informed via emails.

PE1B: Review new materials gathered from other agencies and programs for inclusion in the City’s outreach and education program.

Measurable goal achievements:

PE1A: This measurable goal (MG) was achieved. The City has participated in partners meeting either present at the meeting or via emails for the permit cycle year. The partners meeting are no longer being held once a month. The meetings are held as necessary, but at least quarterly. The partners group is a great way for the City to stay informed with what other Cities are doing to implement their SWMP. The Partners meetings contain MS4’s and NGO’s; therefore the MS4 can let the NGOs know how the MS4s are doing in implementing their SWMP’s. The Partners group is currently working on a collaborative approach to the Public Education and Outreach minimum control measure, also the group is discussing a cost share agreement to share some advertizing marketing costs. Other meeting topics included public education event planning, public education and outreach work plans and budgets, shared public education materials, regulatory requirement updates, training and education opportunities, low impact development and hydromodification control, sources of stormwater funding, among other topics.

PE1B: This measurable goal was achieved. The Partners group is still working towards collaborating together on all the Public Education and Outreach BMP’s to be more effective than working alone. The collaborative effort has been “put on hold” due to staff time being cut in all Cities and until the Draft Permit is out and we have a better idea what the new permit will require. The Partners group also developed TV commercials with Verdin and the City participate funds to support the development of the commercials. See PE7 for more details.

Effectiveness Assessment:

Level 1: Documenting activities: City staff attends Partners meetings.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed. City staff will plan to attend meeting next permit year.

PE2: Residential Brochures

BMP Description:

Distribute stormwater pollution prevention brochures and other printed materials (provided in multilingual and/or pictorial) targeting residential audiences. Topics may include, but not limited to:

General stormwater pollution prevention information about the impacts of urban runoff and the distinction between municipal storm sewer and sanitary sewer systems; Proper lawn and garden care; Sustainable landscaping; Proper household hazardous waste storage and disposal including used motor oil; Proper pet waste disposal; Water conservation, proper automotive car washing; Integrated Pest Management and use of less toxic household products; illegal dumping, and illicit discharge prohibitions; and Public hotline reporting mechanisms

Measurable goal:

PE2A: Distribute printed materials throughout the City every other year. Send residential brochures through direct mail to ensure every resident receives a brochure. Include IWMA program on brochures.

PE4B: Distribute appropriate printed materials to appropriate business

PE4C: Post brochure on the City's website.

Measurable goal achievements:

PE2A: This MG was achieved. Brochures were created for the residents of Morro Bay. The brochure covered the following information: general information on stormwater and its effects on plants, people, fish, and animals. The other topics included proper lawn and garden care, proper household hazardous waste storage and disposal including used motor oil; proper pet waste disposal; water conservation, proper automotive car washing; Integrated Pest Management and use of less toxic household products; and public hotline reporting mechanisms. The brochures were distributed to all the residents in Morro Bay by direct mail. The city sent the brochures by direct mail because this ensures that every resident with a mailbox receives a copy. If the brochures are sent as a water bill insert only those residents who pay the water bill receive a copy, therefore if a resident is a renter and doesn't receive a water bill they would also not receive a brochure. A total 5,700 were distributed to the residents of Morro Bay. Extra brochures are available at the Public Services counter. See brochure below.

PE2B: This MG was achieved. The City stocks the Our Water Our World (OWOW) brochures on various topics included but not limited to; the use of less toxic pest management for snails and slugs, yellow jackets, aphids, spiders etc. Also included printed materials about growing a healthy garden, tips for a beautiful lawn, the use and disposal of pesticides, etc. These brochures are available at Miners Hardware.

PE2C: This MG was achieved. The residential brochure was posted on the City's website, 212 hits and 203 downloads were reported on the website this permit cycle (See table with BMP PE8).

Effectiveness Assessment:

Level 1 - Documenting Activities: The brochures were created and distributed to all the residents in the city of Morro Bay.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes proposed.

**Stormwater
Pollution
Solutions**



City of Morro Bay
Department of Public Services
955 SHASTA AVENUE
MORRO BAY, CA 93442
Stormwater Team
805-772-6261
www.morro-bay.ca.us/stormwater

POSTAL CUSTOMER



955 Shasta Avenue
Morro Bay, CA 93442



PRSR1 STD
U.S. POSTAGE
PAID
San Luis Obispo, CA
Permit No. 7

Stormwater runoff occurs when precipitation from rain flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.



Stormwater runoff is a problem because it can pick up debris, chemicals, dirt, and other pollutants flowing into a storm drain or street and eventually into the bay, estuary, and ocean. Anything that enters a storm drain is discharged untreated into the waterbodies we use for swimming, fishing, and admiring.



Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.



- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment can also destroy aquatic habitat.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into beach areas and create health hazards, possibly making beach closures necessary.
- Debris such as plastic bags, cigarette butts, fast food wrappers when washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

STORMWATER POLLUTION
You can help...

LAWN CARE

Excess fertilizers and pesticides applied to lawns and plants, wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to the estuary, bay and ocean.

- Don't over water your lawn. Consider using a soaker hose or a sprinkler with a timer.
- Use pesticides and fertilizers sparingly. When use is necessary, apply these chemicals in the recommended amounts. Use organic mulch and safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains.



AUTO CARE

Washing your car and degreasing auto parts at home can send detergents and other contaminants to the estuary, bay, and ocean.

- Use a commercial car wash where the wash water goes into the sanitary sewer or is recycled.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off recycling locations.

Household Hazardous Waste Facility

166 Ascadero Rd
Phone Number: 481-9213
Hours of operation: Saturday, 11-3
Items accepted:
Paint, antifreeze, household cleaners, yard pesticides, automotive products.
Call for a complete list, or visit them on the web
www.ivma.com/abihaz.html

Pet Waste

Pet waste can be a major source of bacteria and excess nutrients in local waters. When walking your pet, remember to pick up the waste and dispose of it properly. Put the pet waste in the trash, do not flush your pet's waste. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drains and eventually into our estuary, bay, and ocean.



Este informe contiene información importante sobre agua de lluvia. Tradúzcalo o hable con alguien que lo entienda bien.

PE3: Interpretive signage for tourists

BMP Description:

Post stormwater pollution prevention information targeting tourists at local tourist attractions. Topics may include, but will not limited to include: Why stormwater pollution prevention is important; Impacts of urban runoff on local water bodies; Keep the Central Coast Beautiful; Stormwater Pollution Prevention Travel Tips; Clean Water recreational guides; Don't Feed the Wildlife, the Marine Plastic Debris Problem, and Don't Trash California campaign.

Measurable goal:

PE3A: Partner with the National Estuary Program to provide interpretive signage at high tourist impact areas.

Measurable goal achievements:

PE3A: This MG was achieved. The interpretive sign focuses on the harmful effects of trash, mainly plastic, in the ocean. The interpretive sign were installed along the Harbor Walk and near the Fish Cleaning table at Tidelands Park.

Effectiveness Assessment:

Level 1 - Documenting Activities: The interpretive signs are a great way to get information out to the public, measuring the signs effectiveness is more difficult. The City believes the signs will raise the awareness of tourists of their exposure to the signs adjacent to the waterfront, but the City is still investigating a way to measure the effectiveness of the interpretive sign.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed for the next permit cycle. The City plans to install and maintain the interpretive sign.

LAND AND SEA ARE LINKED

Sand, surf, sun and fun...
This is why we love coming to the beach, but trash can ruin our fun in the sun. Trash isn't just ugly. It pollutes the land and sea, kills wildlife, and threatens our own safety. What we do every day makes all the difference.

Plastic that gets away from us travels on ocean currents into a huge, swirling mass of trash recently discovered in the Pacific Ocean. Boatlight traps the plastic into bins that look toxic for many years. Seafife that can the plastic or become entangled are hurt or killed.

WE ARE THE SOLUTION TO PREVENTING OCEAN POLLUTION!

We want to keep our waterways, beaches, and oceans free of trash and other debris. Do your part!

AT THE BEACH

- Think about the materials and packaging you take to the beach. Choose reusable items.
- Dispose of all trash in the proper receptacles or take your trash home with you. Pick up any debris you see on the ground. You could save an otter pup's life!

ON YOUR BOAT

- Keep all pieces of fishing line, nets, and other litter for proper disposal in trash containers.
- Stow all trash on your boat for proper disposal on land.
- Pump out at authorized pumping stations only.

AT HOME

- Keep your yard, driveway, street, sidewalk, and storm drains free of trash - they empty directly into our oceans and waterways.
- Be a good example to others. Get involved in cleanups in your area and encourage others to help keep the beaches and oceans clean.

WE HAVE A PROBLEM WITH OCEAN POLLUTION

WHERE DOES IT COME FROM?

- Careless trash disposal while picnicking, fishing, sailing, and beachgoing;
- Debris from lawns, streets, and storm drains blown or washed out to sea;
- Accidental or intentional release of waste from shore-based solid waste disposal and waste processing facilities;
- Careless cigarette smokers;
- Sewage overflows.

Most of the trash in the ocean is plastic, and most of it comes from people on land.

OTHER SOURCES OF OCEAN POLLUTION

- Abandoned or lost fishing gear, including line, nets, ropes, bait boxes, and floats;
- Accidental or intentional discharge of trash, galley waste, oil, and boating materials;
- Shipping accidents and careless handling of items used for offshore exploration, oil and gas extraction;
- Natural disasters such as hurricanes;
- Weak enforcement of laws to stop dumping.

It is against the law to dump plastic in any ocean because plastic is so harmful to seafife.

WHAT HAPPENED HERE?

Some people are ignorant about the dangers of plastic, such as the person who threw this trash into Morro Creek. **PHOTO BY ARLY**

Stormwater rushes down gutters and creeks, carrying plastic bags and other pollutants directly into the ocean. **MEDIA BY PHOTOS**

Plastic bags are the most common type of trash in the sea. Here, the mother otter desperately tries to free her baby before he suffocates. She did get the bag off. **ABOVE**

Marine debris is a big threat to habitats, wildlife, and human health and safety.

KEEP THE SEA FREE OF DEBRIS!

- Cigarette filters, bags, foam peanuts and other trash look like food to many animals. Once eaten, these materials can cause starvation and death. Bits of plastic were found in the gut of this fish when it was cleaned for dinner. The albatross starved because its belly was full of plastic.
- Fishing line, nets, traps and bags can entangle, maim, and even drown wildlife, including marine mammals, seabirds, and other species, such as this young sea turtle.
- Abandoned fishing gear and ghost nets smother and crush sensitive coral reefs and eelgrass beds.

THE CITY OF MORRO BAY
California
City of Morro Bay Public Services
200 Harbor Drive, Morro Bay, CA 94051
(805) 732-6821 | www.morro-bay.ca.gov

Discover your better nature...

PE4: Stormwater education materials for local library

BMP Description:

Establish a collection of stormwater pollution prevention educational materials at the local library for school, youth, and other community groups.

Measurable goal:

PE5A: Measure and record the number and types of requests for library materials.

Measurable goal achievements:

PE5A: This MG was achieved. Eight books were donated to the local library. The book titles are as follows:

- All the way to the Ocean
- The three R's: Reuse, Reduce, Recycle
- Why should I save water?
- Water
- One well: The story of water on Earth
- Wump World
- The Lorax
- Down comes the rain

The books varied in education range, grades 1-5. The following shows the circulation times on the various books which were donated.

- All the way to the Ocean: circulated 12 times
- The three R's: Reuse, Reduce, Recycle: was not cataloged so not sure on the number of times of circulation. Sometimes the Library doesn't catalog paperback books, but this book has been sent to the catalog department so that the circulation can be reported
- Why should I save water?: The library is not sure where this book is, it was not cataloged and it is not on the shelf.
- Water: The library is not sure where this book is, it was not cataloged and it is not on the shelf.
- One well: The story of water on Earth: circulated 16 times
- Wump World: was not cataloged so not sure on the number of times of circulation. Sometimes the Library doesn't catalog paperback books, but this book has been sent to the catalog department so that the circulation can be reported
- The Lorax: circulated 6 times, but the Library has another copy which circulated 43 times
- Down comes the rain: The library is not sure where this book is, it was not cataloged and it is not on the shelf.

The City also went above and beyond this requirement and also donated these same 8 books to the Del Mar Elementary school library. This was done to attempt to reach more school aged children.

Effectiveness Assessment:

Level 1 - Documenting Activities: Stormwater pollution prevention educational materials were donated to the local library for school, youth, and other community groups. These book have been checked out and are hopefully raising the awareness of the youth, but there is no way to measure this at this time.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed

PE5: Stormwater information/reporting line**BMP Description:**

Provide a Stormwater Pollution Prevention Telephone Information Line /Reporting Line for the public to get more information and report stormwater pollution problems.

Measurable goal:

PE5A: Maintain the 788-FISH SLO County Partners for Water Quality Stormwater Information Line to direct users to their local stormwater pollution prevention program.

PE5B: Promote the Public Services Main Line Citywide for Pollution Reporting Hotline in printed materials and on the City Stormwater Pollution Prevention Website beginning in Year 1.

PE5C: Record the number of stormwater concerns and/or complaints and document follow up actions and problem resolution. 100% of the stormwater reports will be responded to.

PE5D: Measure and record hotline follow-up response times.

Measurable goal achievements:

PE5A: MG was achieved. The city has maintained the 788-FISH County Partners for Water Quality Stormwater Information Line.

PE5B: MG was achieved. The Public Services Main Line was included in the residential, construction and the restaurant brochures as the pollution reporting hotline and on the City's Stormwater Pollution Prevention Website also has the hotline number posted.

PE5C: MG was achieved. The Stormwater illicit discharge generated from the hotline are available upon request. Due to the nature and information in some of the complaint the City has chosen not to publish this information in the annual report. There were three IDDE complaints reported in permit year 3 all of which were not repeat offenders.

PE5D: MG was achieved. All complaints were handled immediately.

Effectiveness Assessment:

Level 1 - Documenting Activities: The reporting/hotline was advertised on city provided brochures (Residential, Construction etc) and on the stormwater website (www.morro-bay.ca.us/stormwater).

Level 2 – Raising Awareness: The education conducted with illicit discharge enforcement actions helps to gain awareness and knowledge regarding illicit discharges and if the occurrence is not repeated then it is believed to have raised the awareness. None of these offenders were repeat offenders this permit cycle. Future permit years will help determine if this awareness results in a changed behavior. The fact that we get citizens calling in to report these stormwater pollution issues shows that there are aware that these types of activities are not allowed, therefore proving their awareness level has been raised.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed for the next permit year.

PE6: Pet Waste Management

BMP Description:

PE6A: Provide mutt mitt stations in all City Parks. Partner with Morro Bay Mutt Mitt Program to maintain supplies on an ongoing basis.

PE6B: Adopt a pet waste ordinance, enforce and track enforcement.

PE6C: Distribute pet waste management brochures at Pet Stores and Veterinarian Offices within the City.

Measurable goal:

PE6A: Number of Mutt Mitts distributed annually.

PE6B: Pet waste ordinance adopted and enforcement actions taken.

PE6C: Number of Pet waste management brochures distributed.

PE6D: Post pet waste management public education and outreach information on the City website.

Measurable goal achievements:

PE6A: The City has twelve parks and all have mutt mitt dispensers except Anchor and Mariner Memorial park. These are both very small parks and there are mutt mitts within close proximity. Six of the parks have two stations and Del Mar Park, one of our larger parks has four mutt mitt stations. The Dog Park located in Del Mar Park has an additional two stations for a total of six in Del Mar Park. Two community volunteers, the Beebes, initiated the Morro Bay mutt mitt program over eleven years ago. The Beebes unfortunately moved out of the area, but fortunately a new community volunteer stepped up. Diane and Fred Moore continued the program with various other volunteers. The City coordinates with the Moores and had donated \$5,000 towards the purchase of mutt mitts. The total number of mutt mitts dispensed for six months of usage, August 23, 2011 – February 2, 2012 was **102,450!** The total number of volunteer hours for one year period was approximately **1,468** hours!

PE6B: The pet waste ordinance was updated along with the illicit discharge ordinance. The ordinance was adopted by council on May 24th 2011 and therefore went into effect 30 days after. The City currently has a ordinance regarding dog feces which is regulated by the County animal control.

PE6C: MG was achieved. Pet waste management posters were distributed for public viewing at all Veterinarian Offices and Pet Stores in Morro Bay: Lemos Ranch, Morro Bay Vets, Bowsen Boutique, and Coast Vet. Posters were distributed instead of brochures because the City believes the poster is more eye catching than a brochure would be sitting in a display. Also in trying to do our part to producing less waste, the posters can be seen by many visitors and therefore reduces the amount of paper brochures would require.

The City also went above and beyond this requirement by speaking to the realtor association about the “Don’t flush the mush” program, along with other water quality topics (i.e. LID, operation medicine cabinet, FOG program). A water bill insert post card was also sent (approximately 5,500) to all residents in Morro Bay (see below) regarding the “Don’t Flush the Mush” program. Also the residential brochure, approximately 5,700, mailed to at all the resident in Morro Bay this permit year, addressed the topic of pet waste management.

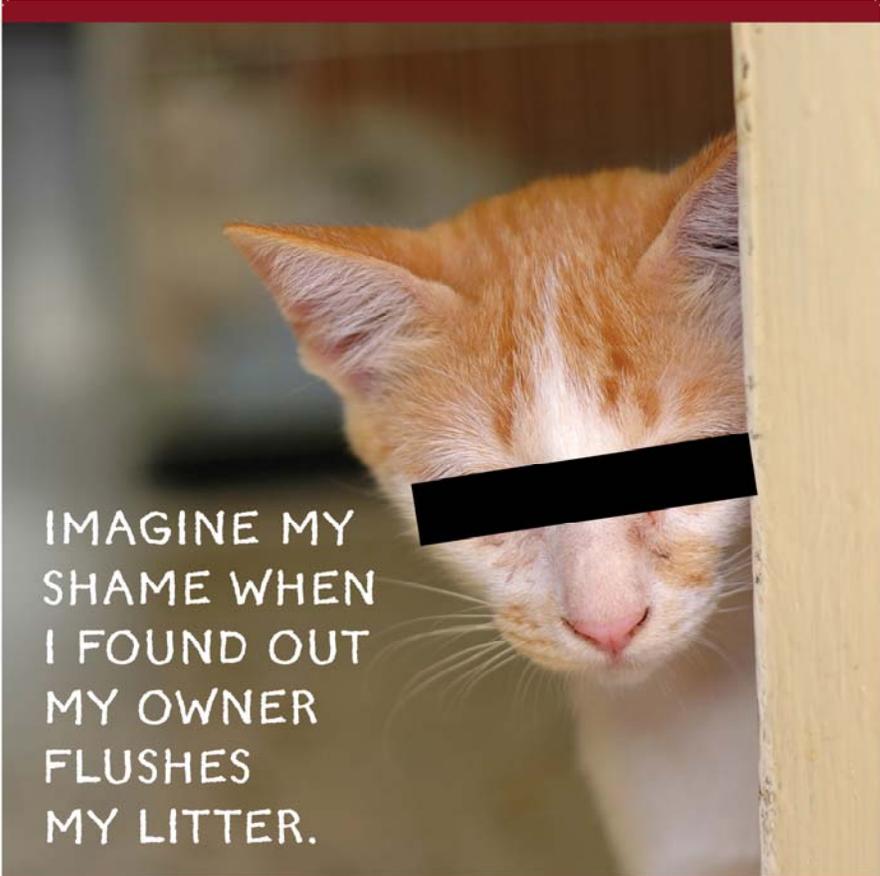
PE6D: The Residential brochure has been posted on the City website and covers pet wastes; the “don’t flush the mush” poster was added at end of permit year two.

Effectiveness Assessment:

Level 1 - Documenting Activities: Posters were distributed at all Veterinarian Offices and Pet Stores in town. Website hits were also tabulated.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed.



IMAGINE MY
SHAME WHEN
I FOUND OUT
MY OWNER
FLUSHES
MY LITTER.

Even flushable kitty litter is a strain on drains and local sea life.
The City of Morro Bay and the Cayucos Sanitary District ask you:
Please dispose of all cat litter in trash receptacles only.

Don't flush the mush.

A message from   **City of
Morro Bay**

PE7: PSA on Channel 20**BMP Description:**

PE7: Provide PSAs on public access channel 20 educating residents about stormwater pollution prevention.

Measurable goal:

PE7: Provide at least one PSA per year on public access channel 20 educating residents about stormwater pollution prevention.

Measurable goal achievements:

PE7: MG was achieved. The DVD "Slow the Flow" has been aired on Channel 20 this permit year. Slow the Flow is a DVD distributed by the Water Boards and educates residents on how to incorporate LID into their landscape. The DVD was shown between Public Hearing meetings throughout the permit year along with different events the City participated in i.e. coastal cleanup day. The City also participated with the County of SLO and the Partners for Water Quality in the creation of three new 25 second and one new 30 second PSA's and a landing page, www.stopdirtywater.com. The landing page gives some brief information and a link to Morro Bay's stormwater website for more information. Also the PSA's can be viewed on the landing page.

Effectiveness Assessment:

Level 1 - Documenting Activities: PSA's were provided on Channel 20 including one video educating Low Impact Development Techniques for residential homes.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed. The City will continue to provide education PSAs on Channel 20.

PE8: City's Stormwater Webpage**BMP Description:**

Distribute stormwater pollution prevention educational materials using the City's Stormwater Pollution Prevention Website. Audiences and topics may include, but would not be limited to: General Public; Residential BMPs; Commercial Business BMPs; Industrial BMPs; Tourists, School Age Children and Educators.

Measurable goal:

PE8A: Maintain and update the City Stormwater Pollution Prevention website (www.morro-bay.ca.us/stormwater) at least once per quarter.

PE8B: Record the number of website hits to measure utilization.

Measurable goal achievements:

PE8A: MG was achieved. The City's Stormwater Pollution Prevention website has been updated at least once per quarter.

PE8B: MG was achieved. See table below for the total number of hits the City's Stormwater web page received. Also see the number of hits for specific items i.e. number of hits for the erosion and sediment control manual.

Effectiveness Assessment:

Level 1 - Documenting Activities: The City created a stormwater webpage and has updated and maintained the website at least quarterly throughout the permit cycle.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed.

City of Morro Bay Stormwater Website Data Range 2/01/2011-1/31/2012	
Files	Downloads
Engineering Standards Supplement - Hydromodification/LID	1212
Appendix H Clean Marina program	1208
Wasteload Allocation Attainment Plan	394
Stormwater Management Plan Appendix D Watershed maps	217
Restaurant BMP's Brochure - Spanish	207
Stormwater Management Plan Section 4 Minimum control measures	207
Residential Brochure	203
Stormwater Management Plan Section 1 Introduction	198
Erosion and Sediment control manual	186
Auto Service BMP Brochure	167
Restaurant BMP's Brochure	154
Annual report year 2	150
Construction site BMP brochure	149
Stormwater Management Plan Section 2 water quality	148
Restaurant BMP's Brochure - Spanish	144
Stormwater Management Plan Section 3 requirements	136
Stormwater Management Plan Appendix E stormdrain atlas	126
Auto Service BMP Brochure - Spanish	125
Stormwater Management Plan Section 5 reporting	123
Coastal Clean-up poster	115
Stormwater Management Plan Appendix E stormdrain atlas	99
SLO green build LID manual	87
Stormwater Management Plan Appendix G Hydromodification	82
Stormwater Management Plan Appendix A RWCQB February 15th letter	80
Stormwater Control Ordinance	71
Stormwater Management Plan Appendix B City Organization Chart	68
Annual Report year 1	63
Conservation Celebration Poster	34
Stormwater Management Plan Appendix F General Permit	32
Pet Waste Poster - Kitty Litter poster	26
Total	6211

City of Morro Bay Stormwater Website Data range 2/01/2011 - 1/31/2012

Files	Valid Hits
Appendix H Clean Marina program	1760
Engineering Standards Supplement - Hydromodification/LID	1212
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Conservation Celebration Poster	34
Pet Waste Poster - Kitty Litter poster	26
Total	7234

PE9: Community Based Social Marketing Strategies**BMP Description:**

The City will evaluate community-based social marketing (CBSM) strategies through the EPA's "A guide for conducting Watershed Outreach Campaigns" manual. CBSM strategies will be incorporated into the City's program where appropriate.

Measurable goal:

PE9A: Begin implementing CBSM strategies into appropriate BMPs.

Measurable goal achievements:

PE9A: MG was ongoing. City staff has begun learning more about CBSM by attending three webinars on CBSM strategies this permit year. Also the City is participating with the County of San Luis Obispo and various other Cities in a new media campaign, stop dirty water, which helps to illustrate some everyday behaviors people do that are not good for water quality. One CBSM technique is to make the wrong behavior less appealing to the public. The city hopes to change this behavior by making it a social norm to pick up your pets waste, for example. Various other techniques are being explored and integrated into different aspects of the stormwater program.

Effectiveness Assessment:

Level 1 - Documenting Activities: The City has begun exploring CBSM.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed.

PUBLIC PARTICIPATION AND INVOLVEMENT

PP1: Public notice requirements

BMP Description:

Comply with public notice requirements for stormwater public participation and involvement activities.

Measurable goal:

PP1A: Determine public notice requirements for each public participation and involvement activity and ensure compliance.

PP1B: Maintain records for public participation and involvement events.

Measurable goal achievements:

PP1A This MG was achieved. Public notice requirements typically do not apply to these activities. Public meetings are noticed according to their requirements.

PP1B: This MG was achieved. Records are maintained according to the MS4 General Permit.

Effectiveness Assessment:

Level 1 - Documenting Activities: Public meetings are noticed according to their requirements. Records are maintained according to the MS4 General Permit.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed for the next permit cycle and the City proposes to continue following the public notice requirements.

PP2: Stakeholder Meeting

BMP Description:

Hold Public Involvement Stakeholders Meeting

Measurable goal:

PP2A: Maintain a master stormwater stakeholder and interested parties list.

PP2B: Organize and conduct at least one stormwater stakeholder meeting per year to review the status and performance of the SWMP.

PP2C: Post the SWMP and stormwater annual report on the City's website for public review.

Measurable goal achievements:

PP2A: This MG was achieved. A master stakeholders/interested parties list has been developed and is available upon request.

PP2B: This MG was achieved. Several meetings were held during this permit year for the Illicit discharge ordinance and to give an update on the Joint Effort. These meetings were noticed according to the public notice requirements.

PP2C: This MG will be achieved. Every annual report is posted on the website as soon as it is completed, it can be viewed at the City website:

www.morro-bay.ca.us/stormwater

Effectiveness Assessment:

Level 1 - Documenting Activities: Stakeholders list was created, SWMP was posted on the website and a meeting regarding the SWMP status was conducted.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed for the next permit cycle and the City proposes to continue to hold at least one stakeholder meeting a year.

PP3: Promote and Participate in Coastal Cleanup / Creek Day

BMP Description:

Promote public participation in Coastal Cleanup Day and Creek Cleanups by collaborating with the SLO County Partners for water quality to advertise the events and assist with provision of incentives to participants.

Measurable goal:

PP3A: Promote and support at least one annual coast and/or creek cleanup opportunities within the SWMP coverage area. Record the amount and types of trash and debris removed and the number of participants.

Measurable goal achievements:

PP3A: This MG was achieved. The City participated in Coastal Cleanup and provided funding this permit year. An announcement about the event and a flyer were available on the City's stormwater website and channel 20 see below. It is difficult for the City to have a site for creek clean up, because the lands surrounding our creeks are privately owned. The City has to get permission from all the property owners along the creek. Therefore the City participated in Coastal Cleanup and promoted Creek Day for the county. The City helped promote creek day by posting posters at our city offices.

Coastal cleanup was a success. For the San Luis Obispo County area there were 1,600 volunteers and collected a total of 42,000 pounds of trash which included a boat removal and a mini fridge from the sand spit. Morro Bay staff participated at the North Morro Strand Beach site. We had 55 volunteers and collected approximately 40 pounds of trash and 25 pounds of recyclables. At this site we not only cleaned the beach but we expanded our cleaning efforts to a drainage channel behind the high school. This property belongs to Morro Bay high school and runs between the high school and the Cloisters neighborhood.

This year's theme was BYOB; bring your own bag, over 50% of the volunteers brought their own bag.

Effectiveness Assessment:

Level 1: Documenting activities: Coastal Cleanup brochures were distributed through out the city, at business, teen center, parks, and city offices. Coastal cleanup also promoted the event on several radio stations and television stations.

Level 4: Reducing Loads from Sources: The Beach and Creek clean-ups were combined this year, and it was a great success. The number of volunteers went from 1338 to 1600 and the debris removal went from approximately 3,350 lbs to 42,000 lbs! This total does include the coastal and creek clean up data, last year these were separate events.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed for the next permit cycle; the City will continue to promote and participate in Coastal Clean up and promote Creek Day which is going to be on the same day this next year.



PP4: Storm Drain Marking

BMP Description:

Mark the City’s Storm drains with markers to educate citizens that the storm drains drain to the ocean and not a treatment plant.

Measurable goal:

PP4A: Storm drain marking will be required on all new development projects with storm drains inlets.

PP4B: Maintain storm drain markings on an ongoing basis. Twenty percent of storm drain inlets will be checked annually to ensure they are still marked with a no dump message, and staff will respond to public comments regarding missing storm drain markers.

Measurable goal achievements:

PP4A: This MG was achieved. No new development has occurred to require storm drain markers. If new development occurs and is required to install a storm drain system the developer will be required to install a storm drain marker.

PP4B: This MG was achieved. Twenty percent of the storm drains were checked this year and three storm drain markers were added.

Effectiveness Assessment:

Level 1: Documenting activities: Storm drains were checked with the cleaning of the storm drains and markers were replaces when needed. Also street, parks, collections and water crews are always on the look out for storm drains which don’t have markers.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed.

PP5: Watershed Stewardship Programs**BMP Description:**

Promote and support Watershed Stewardship Programs including, but not limited to: volunteer water quality monitoring, watershed planning, community reforestation, storm drain marking, community cleanups, and other environmental restoration activities.

Measurable goal:

PP5A: Promote and support watershed programs, these programs may include but not limited to: water quality monitoring, watershed planning, community reforestation, storm drain marking, community clean ups and other environmental activities.

Measurable goal achievements:

PP5A: This MG was achieved. The City has a volunteer tree committee who is very dedicated about planting trees around the community. The volunteer tree committee also has members from Morro Bay beautiful, local landscape and arborist. Staff is currently working on an Urban Forest Management Plans and has met with the volunteer tree committee to include them in the process. Also the City participated with Coast and Creek cleanup day.

Effectiveness Assessment:

Level 1: Documenting activities: The City has participated and supports several watershed programs.

Changes to BMP for next year/ Summary of activities for next year

No Changes are proposed.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

IL1: Illicit discharge detection and elimination ordinance

BMP Description:

Adopt an ordinance prohibiting illicit discharges and including enforcement provisions. The ordinance will include a system of enforcement and penalties. Model ordinances will be used to help draft this ordinance.

The 17 categories of non-stormwater discharges or flows (i.e., authorized non-stormwater discharges) will be addressed only where they are identified as significant contributors of pollutants to the Small MS4. If any of the 17 non-stormwater discharges are deemed significantly contributors to stormwater pollution, BMPs will be added to remediate these individual negative impacts.

Measurable goal:

IL1D: Adopt Ordinance

IL1E: Enforce ordinance where applicable.

Measurable goal achievements:

IL1D: This MG was achieved. The City began drafting an Illicit Discharge and Stormwater Control Ordinance during permit year one and continued in permit year two. The ordinance was adopted during permit year 3. The Ordinance did go through the City's process for public review. The Draft ordinance went to Planning Commission as a public hearing item and no members of the public spoke on the item. Then the ordinance went to City Council for first reading and one member of the public spoke on the item. This member was not in favor of adopting the ordinance and urged the Council to not approve this ordinance. The Ordinance was approved by Council with a 3-2 vote. The Ordinance went back for second reading and adoption on May 24, 2011 and City Council approved the Ordinance. The Ordinance went into effect 30 days after adoption. The Ordinance is available on the City website.

IL1E: This MG is ongoing. The ordinance has a system of enforcement and penalties. The enforcement procedures the city follows is set forth in chapter 1.03: Administrative Citation Program. The municipal code is available online at the City's website, www.morro-bay.ca.us. Specific staff has been trained by the City police department on how to properly use the Administrative Citation Program procedures. The City has focused education efforts with the restaurants. See IL3, inspections have been conducted with the FOG inspections for restaurants. The City is educating these businesses about the ordinance and various BMP.

Effectiveness Assessment:

IL1D & E: Level 1: Documenting activities: The ordinance was drafted and brought to Council. The ordinance is available on the City website along with the entire Morro Bay Municipal Code

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

IL2: GIS map the storm drain system

BMP Description:

Use GIS to map the storm drain conveyance system showing the location of storm drain features all outfalls and the names and locations of all waters of the US that receive discharges from those outfalls. Also the storm drain filters will be mapped along with other BMPs implemented.

Measurable goal:

IL2B: Update maps on an annual basis to include new and modified storm drain facilities.

IL2C: Updates include differentiating between the storm drain system inlet and outfalls, identifying the names and locations of all water of the U.S., differentiating between blue and green lines, and identifying where all storm drains discharges and identifying the catchment area for each storm drain inlet.

Measurable goal achievements:

IL2B&C: This MG is ongoing. The storm drain map has been updated to include differentiating between inlets and outfalls and all the waters of the U.S have been identified. Differentiating between the different color of lines has also been completed. The catchment areas for each storm drain has not yet been completed, this is a difficult task for the City to accomplish. The City has limited topography data, therefore making this a difficult task for the City to complete. Also the City doesn't have a full time GIS staff. Currently the City has a part-time intern who handles the sewer, water GIS and CAD maps and as time allows can work on storm drain maps. The City is working on getting this completed in future permit years.

Effectiveness Assessment:

IL2A: Level 1: Documenting activities: Ongoing updating of the storm drain map.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed, the City will continue to update the storm drain map.

IL3: Illicit connections/discharge inspections

BMP Description:

Implement procedures for illicit connections/discharge inspections and dry weather screening for the storm drain system including restaurant business, auto service facilities, mobile cleaners and industrial facilities. These procedures will apply to anyone discharging into the City storm drain system. The procedures will ensure that any illicit connection or discharge detected will be detected and eliminated.

Measurable goal:

Restaurants

IL3B: Conduct illicit discharge and detection inspections for restaurants. Twenty percent of restaurants will be inspected annually all stormwater violations will be reported to the public services department for follow up. For all violations the City must follow up on all reports, and include response actions and response times in the annual report.

IL3D: Track and trend violations to determine additional preventive and corrective actions that may be needed. Report these results every other year.

Measurable goal achievements:

IL3B,D: Twenty percent of the restaurants were inspected this year for various stormwater BMP's. The same survey that was used in previous years was again used this year (see survey below). This year the inspector asked the restaurant employee the questions on the survey and verified the BMP's in place. Only minor issues were observed and the Restaurants corrected the issues ASAP. The City focused the inspection this permit year on the Embarcadero area, because of the proximity to the Bay.

Effectiveness Assessment:

IL3B&D: Level 1: Documenting activities: The required number of inspections was conducted this permit year and the restaurants employees were educated on proper BMP's .

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.



**City of Morro Bay Stormwater Quality
Survey Form
for Restaurant/Food Facility**

Business Name: _____ Address: _____

Owner/Operator: _____ Phone Number: _____

Form Completed by: _____ Title: _____

Waste Management	YES	NO	N/A	Corrective Action	Comment #
1. Is the dumpster/trash compactor leaking and likely to discharge offsite in a rain event?				Take appropriate action to remedy the leak and prevent leakage from reaching the storm drain system. Dumpsters should have a containment area around them to prevent any fluids from migrating offsite.	
2. Is there accumulated trash evident on or around the dumpsters?				The premises of a food facility shall be kept clean and free of trash and litter at all times.	
3. Are the tallow/grease bins open when not in use?				Tallow/grease bins shall remain closed while not in use.	
4. Is there an accumulation of grease build-up on or around the bins?				Clean up any grease that falls onto the ground. Recommend dry cleaning methods, any water used in cleaning must be discharged into the grease trap then sanitary sewer.	
5. Is there evidence of grease build-up near down spouts which suggest rooftop equipment is not being maintained?				Rooftop equipment must always be properly maintained to prevent overflow and kept in proper working leak free condition.	
Cleaning	YES	NO	N/A	Corrective Action	Comment #
6. Are floor mats being cleaned outside where the wash water drains to the storm drain system?				Floor mat washing water shall drain to the sanitary sewer, not into the storm drain system.	
7. Is equipment being cleaned (degreasing) outside?				Clean equipment in a area which drains to the sanitary sewer or berm/contain an area and dispose of the wash water in the sanitary sewer.	
8. Is the floor wash water from indoors being directed outdoors?				Direct all floor wash water to the floor drains which drain to the sanitary sewer.	
9. Is the outside of the building or hard surfaces (parking lots) cleaned with a hose or pressure washing?				Use dry cleaning methods, or hire a certified mobile surface cleaner.	

Comments:

IL4: Pet Waste Ordinance**BMP Description:**

Adopt and enforce a Pet Waste Management Ordinance to be incorporated within the illicit discharge ordinance. See IL1

Measurable goal:

IL4A: Adopt and enforce a pet waste ordinance according to schedule with the illicit discharge ordinance see IL1. The ordinance adoption process includes public review see IL1.

Measurable goal achievements:

IL4A: The City does currently have an ordinance regarding dog wastes. Section 7.08.25 of the Morro Bay Municipal Code, deals with Dog defecation removal. The current code section does require the removal of dog defecation from any public or private property of another. Also the removal of dog feces shall be removed from private property no less than twice a week. The City also currently has 29 mutt mitt dispensers to encourage pet owners to pick up after their pets. This permit year the illicit discharge (stormwater control) ordinance was adopted and it does cover a section on animal wastes. The ordinance is available on our City website.

Effectiveness Assessment:

IL4A: Level 1: Documenting activities: The ordinance has been adopted.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed; the City proposes to begin enforcing the ordinance next permit year.

IL5: Pump Station Maintenance**BMP Description:**

Maintain the pump-out stations free of charge at various locations throughout the bay. Maintain the signage of pump out locations and pamphlet handouts of the pump-out locations. See the Clean Marina Program in Appendix H.

Measurable goal:

IL5A: Maintain the Harbor departments pump-out stations free of charge, along with signage and pamphlets delineating where the pump out station are located.

IL5B: Enforce existing provisions in Municipal Code chapter 15.24.010, which prohibits discharge of waste.

Measurable goal achievements:

IL5A: This MG was achieved. The Harbor department is maintaining two pump-out stations, at Tidelands Park and South T pier, along with signage delineating the pump out stations. There are two more pump-out stations at the State Park Marina and the Yacht Club, but these stations are not City owned and maintained. The Tidelands park counter recorded 56.3 hours of use this permit year. Unfortunately the pump-out at the South T-Pier does not have counter, but the Tidelands pump-out station is used 99% of the time by boaters. No maintenance was required for the South T Pier pump-out.

The Harbor department informs the boaters of the sanitation facility locations with the Harbor General Information Brochure (see below), this brochure is given to new boaters visiting the Harbor. The brochure is also available in the City website and received approximately 399 hits this permit year.

IL5B: This MG was achieved. The harbor department continues to enforce Municipal Code chapter 15.24.010, prohibiting the discharge of waste in the bay. There were 8 reports of pollution this permit year. Information on the 8 incidences can be provided upon request, due to the City policy that complaints are anonyms they are no longer included in the annual report.

Effectiveness Assessment:

Level 1: Documenting activities: The pump-out stations were maintained in working order this permit year also boaters were informed of the pump-out locations.

Level 4: Reducing Loads from source: Since the pump-out stations were used 56.3 hours this permit year the City can conclude that this waste was not dumped into the Bay and therefore the pump-outs have reduced loads into Morro Bay.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

Harbor Department General Information Brochure:

MARINE SANITATION INFORMATION

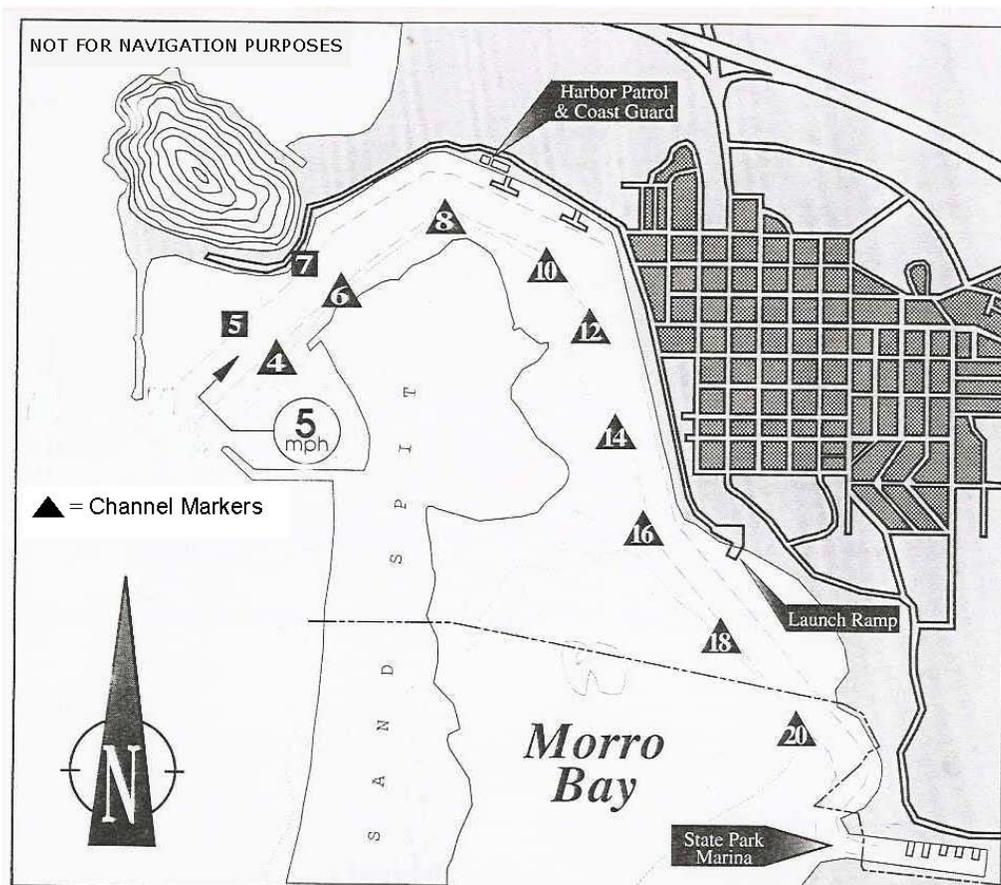
FREE PUBLIC PUMP-OUT STATIONS:

Tidelands Park (E of #16),
 South T-Pier (E of #10)
 Morro Bay Marina (E of #12)
 Morro Bay Yacht Club (E of #14)

NO DISCHARGE IS ALLOWED IN MORRO BAY.

PUBLIC SHOWER FACILITIES: Public showers are available at the North T-Pier restroom (E of #8) and at Tidelands Park restroom (E of #16). These showers are coin-operated and take quarters.

Free Waste Oil Disposal: The Harbor Department has facilities for disposal of used oil, oil filters, diapers and oily bilge water. Contact us via VHF radio Channel 12 or at 772-6254. For large amounts of contaminated fuel or bilge oil, contact Evergreen Environmental at (800) 972-5284. **WASTE OIL IS PROHIBITED FROM PUBLIC DUMPSTERS. DO NOT DUMP WASTE OIL OR BILGE OIL IN THE BAY; THE COAST GUARD WILL FINE ANY VESSEL DISCHARGING OIL IN THE BAY.**



IL6: Oil Disposal Waste Maintenance

BMP Description:

Maintain the waste oil disposal for used oil, oil filters, oily diapers, and oily bilge water.

Measurable goal:

IL6A: Maintain the Harbor departments waste oil disposal for used oil, oil filters, oily diapers (pads), and oily bilge water.

IL6B: Maintain the pamphlet with information and VHF radio or telephone number for waste oil disposal information.

Measurable goal achievements:

IL6A: This MG was achieved. The Harbor department maintains the oil disposal for used oil, oil filters, oily diapers, and oily bilge water.

This permit year 440 gallons of used engine oil, *2500 pounds of used oil absorbent pads, and 2 drums of crushed used oil filters (approximately 300 filter) were recycled. Also approximately 30 gallons of bilge pump water was processed through the oil/water separator at the South T-Pier.

*If you discount the tare weight of the pads it equals approximately 330 gallons of oil. This oil is from the bottom of the vessels bilges.

IL6B: This MG was achieved. The harbor department maintains a pamphlet with information and VHF radio and telephone number for waste oil disposal information (see pamphlet above). Also the Harbors spring newsletter

Effectiveness Assessment:

Level 1: Documenting activities: The oil waste disposal area has been available for boaters all permit year.

Level 4: Reducing Loads from Sources: The amount of engine oil, oil filters and absorbent pads etc have been eliminated from potentially polluting the Bay, therefore this BMP reduced loads to Morro Bay.

Changes to BMP for next year/ Summary of activities for next year:

No changes proposed.

IL7: Wasteload Allocation and Attainment Plan

BMP Description:

Develop a wasteload allocation and attainment plan (WAAP) for the Morro Bay, Chorro and Los Osos creeks Pathogen TMDL.

Measurable goal:

IL7A: Develop a WAAP with the specific components required by the CCRWQCB

IL7B: Implement the plan within 60 days of the submittal to the CCRWQCB.

Measurable goal achievements:

IL7A: This MG was achieved. The WAAP was developed and submitted with year 2 annual report.

IL7B: This MG was achieved. The City has been implementing the WAAP since August 2011, 60 after submitting it to the CCRWQCB. The WAAP includes monitoring which was conducted in August, October, December, and February of permit year 3. The results of the monitoring are included below.

Several other BMP were included in the WAAP; a dye tablet program, outreach and education to the RV parks and trailer parks and a beach walk program.

Morro Bay harbor department started giving dye tablets to the live-aboard boats during the live-aboard boat inspections. The boaters are educated on the importance of making sure the holding

tanks are in working order and they are asked to voluntarily comply with adding a tab each time they empty the tank at the pump-out station.

The City has begun the process of educating the RV and trailer parks on proper sewage disposal. The City has begun determining which parks have pump out stations and which have lateral for each site. Once this information has been completed the City will begin developing appropriate education materials.

A "Beach Walk" program has been begun. The City has created a beach walk form to report any observations and will conduct the first beach walk in the dry season.

Effectiveness Assessment:

Level 1: Documenting activities: The WAAP implementation has begun. It is too early in implementation to determine any further effectiveness measures.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

Bacteria Data Analysis

WAAP 1				WAAP 2				WAAP 3			
	Enterococcus	Fecal	Total		Enterococcus	Fecal	Total		Enterococcus	Fecal	Total
August	10	4	4	August	10	130	130	August	10	30	30
<i>Duplicate</i>		10	30	<i>Duplicate</i>		62	669	<i>Duplicate</i>		31	74
October	20	220	500	October	20	11	30	October	10	11	22
<i>Duplicate</i>		63	175	<i>Duplicate</i>		10	74	<i>Duplicate</i>		20	52
December	1	13	13	December	1	50	170	December	1	30	50
<i>Duplicate</i>		20	31	<i>Duplicate</i>		85	145	<i>Duplicate</i>		10	63
February	1	2	2	February	2	110	500	February	1	30	110
<i>Duplicate</i>		10	10	<i>Duplicate</i>		31	3448	<i>Duplicate</i>		20	146

Geometric Mean										
3.76	15.22	23.22		7.25	43.51	231.34		3.16	20.93	58.02
	Maximum	Maximum			Maximum	Maximum			Maximum	Maximum
	220	703			220	9208			110	1100
	Minimum	Minimum			Minimum	Minimum			Minimum	Minimum
	2	2			10	30			10	22

CONSTRUCTION SITE RUNOFF CONTROL

CON1: Revise Municipal Code to update erosion and sediment control requirements

BMP Description:

Revise City Municipal Code Chapter 14.48 to update erosion and sediment control requirements and enforcement provisions for construction activities that are required to comply with the General Permit for discharge of stormwater associated with Construction Activities (Construction General Permit, CGP). Also revise chapter 14.48 to include construction activities that are not required to comply with the Construction General Permit, construction activities which disturb less than one acre of land.

Measurable goal:

CON1B: Enforce new regulations on construction sites subject to the Construction General Permit.

CON1C: Enforce new municipal code regulations on construction sites less than one acre of land.

Measurable goal achievements:

CON1B: This MG was achieved. The State Water Boards website showed two active construction general permit (CGP) during this permit year. The City of Morro Bay's lift station project and Morro Bay State Parks Road construction were the only two projects listed. The lift station project didn't begin construction until after permit year 3 ended, so this status will be reported next permit year. The Morro Bay State Parks project is not within the City jurisdiction, the State Park is a higher government agency. Therefore there were no construction projects over an acre this permit year.

CON1C: This MG was achieved. For the permit year there were approximately 15 building permits with ground disturbance active during the "rainy season". The numbers of building permits with ground disturbance changes constantly as building permit are finalized.

Effectiveness Measure:

CON1B: Level 1: Documenting activities: The City tracks the number of construction sites over an acre. There were no sites over an acre this permit year. Approximately 15 of construction sites requiring erosion and sediment controls were active at the time of inspections and 15 inspections conducted, all sites were compliant.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No Changes are proposed.

CON2: Plan Review for erosion and sediment controls

BMP Description:

Conduct construction site building and grading plan reviews.

Measurable goal:

CON2A: Review grading and building plans to verify that erosion and sedimentation control BMPs are included and are adequate before issuing a building permit.

CON2B: Ensure all projects required to be covered under the Construction General Permit displays the State Water resources Control Board Waste Discharge Identification (WIDID) number of the plans.

Measurable goal achievements:

CON2A: This MG was achieved. All building and grading plans with soil disturbance are required to show erosion and sedimentation controls measures. The plans are checked to verify the BMPs are shown on the plans and are adequate for the site. If BMPs are not included on the plans, the plans are returned with corrections and the City's erosion and sediment control manual is given to provide guidance.

CON2B: This MG was achieved. All projects which are over an acre of land or part of a larger common plan of development are required to obtain a permit from the State Board and provide this evidence by supplying the WDID number on the plans. Plans are checked to verify that the number is present and staff checks the State Board website to ensure the permit is valid. A SWPPP is required to be submitted and verified with the plans in accordance to the CGP requirements. There were no project under construction this permit year that are subject to the GCP.

Effectiveness Assessment:

CON2A: Level 1: Documenting activities: All building plans which require erosion and sediment control must show the control on the plans prior to issuance of the building permit, to ensure all building plans fulfill this requirement. The city has not received any building plans which are over an acre this permit year.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes are proposed.

CON3: Construction Site Inspections

BMP Description:

Conduct construction site inspections and enforce construction site runoff control requirements.

Measurable goal:

CON3A: Inspect construction site stormwater BMPs to ensure that they are being implemented and are properly maintained. Highest priority addresses sites over an acre, steep slopes (over 15%) and sites with detailed erosion control plans. Create an erosion and sediment checklist for on-site inspections.

CON3B: The City will track erosion control inspections in the same way all inspections are tracked in our permit tracking program HDL. One inspection will be conducted at the beginning of the rainy season for applicable construction sites. A follow up inspection will only occur if warranted.

CON3C: Inspectors shall attend the City provided training course on Erosion and Sediment Control for Construction Projects to ensure they are properly trained. Quizzes will be provided.

Measurable goal achievements:

CON3A: This MG was achieved. An erosion and sedimentation control checklist for onsite-inspection has been created see checklist below. The inspections are logged on the erosion and sediment control checklist. Site must have compliance or a stop work order is issued. All sites with exposed soil were inspected.

CON3B: This MG was achieved. All sites with soil disturbance were inspected therefore any sites which don't contain site disturbance were eliminated, i.e. small interior room remodels, bathroom remodels etc. All sites are inspected for erosion and sediment control requirements. For the permit year approximately 15 building permits with soil disturbance were active. Fifteen erosion and sediment control inspections were completed. All sites were compliant with the first inspection.. Since these sites are active building permits a inspector typically is inspecting the site for various other inspections and at this time the entire site is observed and if a erosion or sediment issue was observed a correction would be given. No corrective actions were given this permit year.

CON3C: This MG was achieved. All erosion and sediment control inspections are conducted by Damaris Hanson, Engineering Technician. Damaris has received her certification as a Certified Professional in Erosion and Sediment Control CPESC, and meets the education requirements to fulfill this certification, 60 hours in a three-year period. Damaris also completed the QSD and QSP certification process. The building inspector, Brian Cowen, conducts most of the building permit inspections. Brian Cowen and Damaris Hanson participated in the City provided training. The City provided training consists of watching a video and taking a quiz. Both Brian and Damaris passed the Quiz with 100%.

Effectiveness Assessment:

Level 1 - Documenting Activities: The inspection checklist was created and used on all appropriate sites. Appropriate staff has had the appropriate training in ensure staff has the proper knowledge to perform the site inspections. The training certificates can be provided upon request.

Level 2 – Raising Awareness: Fifteen erosion and sediment control inspections were competed this permit cycle and 15 were compliant at the initial inspection and no given corrections. No stop work orders were given for continued noncompliance, therefore the contractor are becoming aware of the erosion and sediment control requirements.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No changes proposed.

CON4: Public Education for the construction industry

BMP Description:

Distribute stormwater pollution prevention brochures and other printed materials (provided in multilingual and/or pictorial) targeting the development community and construction industry including construction site owners and operators and contractors. Topics may include, but not limited to: Construction Stormwater General Permit requirements; City ordinances and permits; Stormwater Pollution Prevention Plan (SWPPP) requirements; Erosion and sediment control BMPs; Illicit discharge detection and elimination; and proper disposal and recycling of construction materials.

Measurable goal:

CON4A: Make available at the Public Services counter and on the City website construction site education and outreach information.

CON4B: Post education and outreach information on erosion and sediment control on the City website.

Measurable goal achievements:

CON4A: This MG was achieved. A construction brochure (with the IWMA program information) has been created. The brochure can be viewed on our website www.morro-bay.ca.us/stormwater under quick links Construction activities BMP brochure (see below). The best attempt is made by staff to give this brochure with every building permit. The brochure is sometimes not taken by the contractor because they say they have one already. The brochures are always available at the counter if a citizen is looking for more information. The Construction brochure has been posted on the City's website: www.morro-bay.ca.us/stormwater under quick links.

CON4B: This MG was achieved. As mentioned in CON4A the construction brochure is available on the City's website. The number of hits is reported with PE8. The City had 100% compliance this permit year. The knowledge that erosion and sediment controls are required is evident with all the contractors' compliance.

Effectiveness Assessment:

Level 1 - Documenting Activities: Brochures were made available at the Public Services counter and on the website.

Level 2 – Raising Awareness: There were no sites that ere out of compliance this permit year indicating that the public is aware of the City requirements to comply with erosion and sediment controls.

Changes to BMP for next permit year / Summary of activities for next permit cycle:

No Changes are proposed.

Where can you dispose of hazardous materials?

The Household Hazardous Waste Facility is located at:

160 Atascadero Road
Phone number: 481-9213

Hours of operation: Saturday 11-3

Items accepted:

Paint, antifreeze, household cleaners, yard pesticides, automotive products.
Call for a complete list.

To report a discharge or spill call the City of Morro Bay at 772-6261 during normal business hours.



Sammy the Steelhead



City of Morro Bay

Best Management Practices for Construction Activities



The City of Morro Bay is committed to preventing pollutants from entering our local waterways. Everyday activities at construction sites have the potential to have a deleterious effect on our water ways. The Best Management Practices contained herein are designed to help the development community prevent contaminated runoff from polluting local waterways.

For more information call 772-6261
www.morro-bay.ca.us/stormwater



YOU ARE THE SOLUTION TO STORMWATER POLLUTION



The purpose of this brochure is to assist those involved in the construction industry in the implementation of routines into daily work activities to prevent the pollution of our local waterways.

These measures must be implemented at the latest by October 15th through April 15th of each year. Regardless, all measures must be in place prior to the occurrence of a predicted storm event.

How does development affect our local waterways?

When land is graded for new development projects our local environment feels the effects. The primary concern is the potential for sediment and contaminants in the runoff site. As the natural vegetation is cleared, soil is exposed and susceptible to the forces of erosion. Wind, water humans and machines carry sediment, contaminants, litter and debris off site and eventually into our waterways. This untreated waste affects the water quality, humans, animals, and environmental health, and can cause flooding when storm drains are clogged or blocked by sediment and debris.

How can Developers reduce the projects impact on water quality?

Ideally, the only thing to leave the site is clean rainwater. An effective stormwater management/erosion and sediment control plan should address all potential pollutants and a way to prevent them from migrating off site. The following BMPs provide various ways you can control and prevent contaminated runoff from leaving your construction site.

Erosion Control Measures

Practices that prevent soil particles and construction debris from entering stormwater. Some of the more common include:

- Scheduling: Sequence construction to reduce the amount and duration of soil exposed to erosion by wind, rain and vehicle tracking.
- Preserve vegetation: preserving existing vegetation as a natural erosion control.
- Mulching, Geotextile mats: install natural or synthetic material to cover exposed ground.
- Dust Control: Stabilize soil from wind erosion
- Stabilized construction entrance: stabilize the access ways and areas where vehicle transportation may track material off site.
- Good Housekeeping: Keep the site free of litter and keep materials away from the street, gutters and storm drains.

Sediment Control Measures

Methods used to trap eroded sediment and prevent the sediment from migrating off site.

- Silt Fence: Installation of a silt fence, entrenched, will detain sediment laden water.
- Sand bags/gravel bags: Stack sand/gravel bags around storm drain inlets.
- Fiber rolls: Place fiber rolls along the site contours, stacked at a minimum of every 4 ft and entrenched 2-3 inches. Straw Bales are no longer allowed.

See the City of Morro Bay's Erosion and Sediment control Manual for more information.

CON5: Construction Site BMP manual**BMP Description:**

Develop and disseminate a construction site BMP policy and procedures guidance manual. The CASQA Construction BMP Manual will be used as a model.

Measurable goal:

CON5B: Make available, at the Public Services counter and on the City website, the construction site BMP manual.

Measurable goal achievements:

CON5B: This MG was achieved. Construction site BMP policy and procedures guidance manual is available at the Public Services counter and on the City Website. Se PE8 for website hits and downloads.

Effectiveness Assessment:

Level 1 – Documenting Activities: BMP policy and procedures guidance manual developed.

Changes to BMP for next year/ Summary of activities for next year:

No changes proposed.

CON6: Training for building department**BMP Description:**

Train municipal operations staff involved in reviewing grading and building plans, inspecting construction sites, or managing or monitoring construction sites for runoff control.

Measurable goal:

CON6A: City staff shall attend workshops and training courses on construction site runoff control and potential water quality impacts on an ongoing basis. The training will include at a minimum the Construction Stormwater General Permit requirements and erosion and sediment control BMPs.

Measurable goal achievements:

CON6A: This MG was achieved. Currently the City only has one staff member who conducts the erosion and Sediment control inspections and reviews the grading and building plans for site drainage. This staff member attended the 3 day QSD and QSP training class and obtained the QSD and QSP certifications. Caltrans no longer hold the erosion and sediment control classes, therefore it is difficult for City staff to attend a erosion and sediment control workshop, due to budget constraints and workshop locations.

The City does conduct our own training for building staff. The Building Inspector and Engineering staff (2 persons) watched a training video and took a post-video quiz. Both staff members passed the quiz with a score of 100%.

Effectiveness Assessment:

Level 1 – Documenting Activities: All staff conducting plan checks and erosion and sediment control inspections were trained.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed.

CON7: Stormwater Hotline**BMP Description:**

Use the Public Stormwater Pollution Prevention Hotline for citizen reporting on construction site runoff violations.

Measurable goal:

CON7A: Use the current 788-FISH or 772-6261 as the hotline for citizens to call and report on construction site runoff violations.

CON7B: Record the number of citizen reports and problem resolution and report annually. 100% of citizen reports will be responded to.

Measurable goal achievements:

CON7A: This MG was achieved. The main line for Public Services is used for the hotline. This number was included in all construction brochures given to the public. Also the City has a new phone system in which a citizen can listen to the "phone tree" and if they have a stormwater concern the phone call gets directed accordingly.

CON7B: This MG was achieved. The hotline didn't receive any complaints about construction sites this permit year.

Effectiveness Assessment:

Level 1 – Documenting Activities: No citizen reports regarding construction activity were reported in permit year 2.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW AND REDEVELOPMENT

PC1: Buffer zones for wetlands and riparian areas

BMP Description:

Continue enforcing Morro Bay's current Zoning Ordinance with existing riparian buffer zones of 50 feet and wetland buffer zones of 100 feet.

Measurable goal:

PC1A: Continue requiring projects to protect riparian and wetland areas by requiring a buffer zone, according to Morro Bay's Zoning Ordinance chapter 17.40.040, to the maximum extent practicable.

Measurable goal achievements:

PC1A: This MG was achieved. The Morro Bay Zoning Ordinance 17.40.040 was enforced on all building and planning permit, which were within 50 feet of a riparian area and 100 feet of a wetland. Two projects were subject to this ordinance, a 10 lot subdivision on Theresa Street has a 50 foot buffer from a riparian area and a single family house on North Main Street also has a 50 foot buffer from a riparian area. Both projects are in the planning phase and both projects development is out the 50 ft buffer.

Effectiveness Assessment:

Level 1 - Documenting Activities: All projects subject to Zoning Ordinance 17.40.040 were given the specific requirements.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

PC3: Development review for post-construction management

BMP Description:

Continue to review post-construction stormwater management in the development review process.

Measurable goal:

PC3A: Continue to review current post-construction stormwater management in the development review process and incorporate the new requirements once developed.

Measurable goal achievements:

PC3A: This MG was achieved. The City revised this section of the Municipal Code and relocated the Stormwater Control Requirements to the Engineering Standards. See PC8F for more explanation of the Cities LID/stormwater requirements.

Currently these requirements apply to projects resulting in 2,500 sq ft of new or redeveloped impervious area.

Effectiveness Assessment:

Level 1 - Documenting Activities: The City has reviewed post-construction stormwater management in the development review process.

Changes to BMP for next year/ Summary of activities for next year:

The City is working with the Regional Water Board in the Joint Effort, therefore the City has began implementing the Stormwater and LID Controls discussed in further detail in PC8F.

PC4: Post-Construction maintenance inspection program

BMP Description:

Implement a post-construction stormwater management maintenance inspection program. The program will include the following components; inspections during construction to ensure BMPs are built as planned, specific timeframe after construction termination for the first post construction site inspection, post construction inspections to ensure proper BMP maintenance and BMP effectiveness (in coordination with a self certification program) and tracking of approved treatment and flow/volumes based BMPs.

Measurable goal:

PC4A: Create a maintenance inspection program. Inspect project sites with post-construction runoff controls as defined in the revised City Municipal Code (14.48).

PC4B: Inspect projects with post construction controls during construction to ensure BMPs are built as planned.

Measurable goal achievements:

PC4A: This MG is currently being developed. The City is in the process of developing a maintenance inspection program through our Illicit Discharge and Stormwater Control Ordinance. The ordinance states:

“Post-construction Stormwater Devices: Property owners of development or redevelopment projects which require installation of post-construction stormwater devices shall submit a maintenance plan or manufacturer’s maintenance guide for those devices as part of the project submittal. The plan or guide provided shall be considered the minimum maintenance required, with additional maintenance performed as needed to comply with this chapter. All property owners with post-construction stormwater devices on their property shall submit to the director annual inspection/maintenance reports to confirm continued compliance with this chapter. Reports shall be signed and certified by the property owner or the authorized representative.”

The Engineering Standards will define in greater detail what is required for the annual inspection/maintenance report. The engineering staff is in the process of developing a more robust tracking and inspection program. Staff has attended a webinar this permit year to help with this process

PC4B: This MG was achieved. The City currently inspects the post construction Stormwater Controls during the drainage inspection. Engineering and Building department staff conduct the inspections and are qualified to make sure that what is designed on the plans is what gets installed in the field. The post-construction controls are inspected while they are being built and after they are built, during the Final Inspection before the building received final occupancy. Eleven systems were built and every system was inspected accordingly.

Effectiveness Assessment:

PC4A: Level 1 - Documenting Activities: Ordinance currently being updated to allow maintenance of Post construction controls and Inspections by City staff of Post Construction control being built and completed.

Changes to BMP for next year/ Summary of activities for next year:

No Changes proposed, the City will begin enforcing the Illicit Discharge and Stormwater Control Ordinance once the ordinance is in effect. The City will also continue to conduct inspections of Post-construction controls in the same manner.

PC6: Long-term watershed planning

BMP Description:

Commit to long-term watershed planning.

Measurable goal:

PC6A: Participate in the San Luis Obispo County Hydromodification Technical Advisory Committee (SLOCHTAC) to assist in the development of hydromodification control criteria to provide long-term watershed planning by developing hydromodification control criteria.

Measurable goal achievements:

PC6A: This MG was achieved. Barry Rands Associate Engineer has actively participated in the SLOCHTAC. The mission of the SLOCHTAC is to provide technical review and recommendations for Hydromodification Control Criteria, Low Impact Development Strategies and Other related Storm Water Quality Issues to ensure that all the MS4 agencies within San Luis Obispo County develop technically feasible, cost effective hydromodification plans that protect Water Quality.

Barry participated in a sub-committee task force to develop interim LID standards for agencies to adopt. The City made modifications to the Engineering Standards to incorporate these standards, adopting them on July 6, 2011

Effectiveness Assessment:

Level 1 - Documenting Activities: The City has been actively participating in the SLOCHTAC.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed.

PC7: Enforceable Mechanisms for Post Construction

BMP Description:

Develop and/or modify enforceable mechanisms that will effectively implement hydromodification controls and LID. Enforceable mechanisms may include municipal codes, regulations, standards, and specifications

Measurable goal:

PC7B: Approved new and/or modified enforceable mechanism that effectively resolve regulatory conflicts and implement hydromodification controls and LID in new and redevelopment projects.

PC7C: Apply new and/or modified enforceable to all new and redevelopment projects.

Measurable goal achievements:

PC7B: The City adopted new hydromodification controls and LID techniques for new and redevelopment projects in Morro Bay. The City included these requirements in the Engineering Standards, which can be viewed at the City's website in the stormwater section under LID.

PC7C: The new hydromodification and LID controls have been applied to all new qualifying projects. Fifteen projects were subject to the new hydromodification control requirements this permit year.

Effectiveness Assessment:

Level 1 - Documenting Activities: The analysis was completed, modification to the Engineering standards are in process.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed. The City will continue to work with the Region Water Board and the Joint Effort.

PC8: Implementation Strategy for LID and Hydromodification Control

BMP Description:

Develop and enact a strategy for implementing LID and hydromodification control for new and redevelopment projects. The strategy will provide appropriate education and outreach for all applicable target audiences, and will include specific guidance for LID BMP design and for complying with hydromodification control criteria. The strategy will also apply LID principles and features to new and redevelopment projects during the two-year period preceding adoption of hydromodification control criteria.

Measurable goal:

PC8A: Develop advertise and make available LID BMP design guidance suitable for all stakeholders.

PC8B: Provide specific guidance on how to achieve and demonstrate compliance with the hydromodification control criteria and LID requirements. Make available to new and redevelopment projects applicants.

PC8C: Documentation of goals, schedules, and target audiences for education and outreach. The City will conduct in support of the following strategic objectives: enforceable mechanisms, hydromodification control criteria, applicability thresholds, LID BMP design, and compliance with LID and hydromodification control criteria.

PC8F: Apply LID principles and features to all applicable new and redevelopment projects.

PC8G: Tracking Report, for the period Q2 to Q8, identifying LID design principles and features incorporated into each applicable new and redevelopment project.

Measurable goal achievements:

PC8A: This MG was achieved. The City has revised the engineering standards with the new hydromodification and LID requirements and made them available on the City's website and at the counter. The hydromodification and LID requirements had the most hits on the City's website in permit year three.

PC8B: The MG was achieved. Included in the engineering standards is enough information providing guidance on how to achieve compliance with the hydromodification and LID requirements. Also City staff spends many hours talking with applicants and engineers during the development review process to assure the requirements are applied correctly.

PC8C: This MG was achieved. The City has previously reported to the Water Board the documentation for goals, schedules, and target audiences for education and outreach of LID and hydromodification controls.

PC8F: This MG was achieved. LID principals were incorporated into the Engineering Standards and have been added to the City's website. The Engineering Standards will be available to the Water Board upon request.

PC8G: This MG was achieved and is ongoing. The City began implementing LID principals with discretionary projects starting in quarter 2. In permit year three there were fifteen projects that qualified for the City's hydromodification and LID control requirements.

Effectiveness Assessment:

Level 1 - Documenting Activities: Documentation of LID/HM strategies for implementation has been developed.

Changes to BMP for next year/ Summary of activities for next year:

No Changes are proposed the City will continue to work with the Regional Water Board in the Joint Effort.

PC11: Attachment 4 Requirements**BMP Description:**

Incorporate the specific General Permit Attachment 4 measures related to source control into the development review process.

Measurable goal:

PC11A: Incorporate all but the following requirements from attachment 4: B.2.a, B.2.b, B.2.i, B.4, B.5 and B.6 into the development review process.

Measurable goal achievements:

PC11A: This MG was achieved. The requirements are now included as part of the development review process and any projects subject to these requirements will be given the requirements. The attachment 4 requirements were incorporated into the hydromodification and LID control requirements contained in the Engineering Standards. There was two projects subject to these requirements this permit year. Both projects incorporated the attachment 4 requirements.

Effectiveness Assessment:

Level 1 - Documenting Activities: The attachment 4 requirements have been included in the development review process.

Changes to BMP for next year/ Summary of activities for next year:

The City would like to eliminate PC12 it is a duplicate of PC11.

GOODHOUSEKEEPING AND POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS

MO1: Employee Training Program

BMP Description:

Implement an employee training program for municipal operations employees including, but not limited to, road maintenance, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, water and wastewater system operators, and stormwater system maintenance operations employees. The training program includes provisions for new employee training and annual refresher training.

Measurable goal:

MO1A: Implement an employee training program for Public Services, Recreation and Parks, Planning and Building, Streets, Harbor, Police and, Fire department and Wastewater staff covering how to incorporate pollution prevention and good housekeeping into municipal operations.

MO1B: Provide stormwater pollution prevention training to each municipal operations employee on an annual basis.

MO1C: Measure the effectiveness of the training using scored quizzes and evaluations. Repeat training for scores less than 70%.

Measurable goal achievements:

MO1A: This MG was achieved. Two video training programs were selected to cover the needs of the City's municipal operations employees. The "Storm Watch: Municipal Stormwater Pollution Prevention" video is used for employees who work in other field operations such as Parks, Roads, Water, Wastewater and Police.

MO1B: Each department watched the video and took a quiz. Any questions were answered and the quiz was graded. Also any areas where the employees felt we were lacking stormwater pollution prevention measures was discussed. All City departments with the exception of the Fire Department participated this year. The Fire department participates in training courses in related fields, i.e. hazmat training. This department is prepared with the knowledge to handle any illicit discharge.

MO1C: All Departments which participated took a quiz and was required to achieve a passing score of 70% or more. All employees received a passing score.

Effectiveness Assessment:

Level 1: Documenting activities: The City created/conducted a Municipal employees training program.

Level 2: Raising Awareness: Municipal employee's awareness was raised through the training videos. Employees all passed the quizzes with a minimum score of 70% demonstrating staff understood the training concepts.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed; the City will conduct another training next permit year.

MO2: Street Sweeping Program

BMP Description:

Implement a City street sweeping program.

Measurable goal:

MO2A: Sweep City roads on a weekly basis in heavily soiled areas. Heavily soiled areas are the Embarcadero and Downtown areas. Remaining areas of the city will be swept on a bimonthly basis.

MO2B: Sweep City-owned parking lots semi-monthly

MO2C: Track miles swept and the amount of material collected annually.

Measurable goal achievements:

MO2A: This MG was achieved. The City currently sweeps the Embarcadero and Downtown areas on a weekly basis and the remaining City streets are swept on a bimonthly basis.

MO2B: This MG was achieved. The City owned parking lots are swept semi-monthly.

MO2C: This MG was achieved. See table below with the amount of debris removed and miles swept.

Effectiveness Assessment:

Level 1: Documenting activities: The City has implemented a street sweeping program.

Level 4: Reducing Loads: The street sweeping program has reduced loads by removing pollutants before they have a chance to enter the Storm drain system and the City's waterways. See the table below for load amounts.

Changes to BMP for next year/ Summary of activities for next year:

No changes proposed, the City will continue sweeping streets in the same manner.

To quantify the amount of stormwater pollution that didn't reach the storm drain system		
The amount of sediment in tons that has been removed from the streets	192.44 tons	
The amount of sediment that would have reached the storm drain system if not removed by sweeping. Assuming 10 to 25% would have reached the storm drain system.	19.244 to 48.11 tons	
The total amount of toxic pollutants kept from the storm drains	769.76 to 7,698 pounds	
Month Debris was swept and taken to the landfill	Quantity of debris removed (tons)*	* These amounts don't necessarily represent what was collected each month, because the street sweeper can stock pile material from previous months until there is enough material to take to the dump. ** November's debris was combined with December's debris.
Feb-11	22.21	
Mar-11	19.51	
Apr-11	4.69	
May-11	27.65	
Jun-11	12.46	
Jul-11	12.17	
Aug-11	24.87	
Sep-11	25.93	
Oct-11	7.36	
Nov-11	**	
Dec-11	20.4	
Jan-12	15.19	
Total	192.44	

MO3: Storm Drain Inspection and Maintenance

BMP Description:

Implement Storm drain Inspection and Maintenance Procedures and Schedules.

Measurable goal:

MO3A: Implement routine inspection and cleaning procedures and schedules for storm drain catch basins and other components of the storm drain system that require cleaning at least twice per year (once before the wet-season) on an ongoing basis. Additional cleaning may be needed based on historical need in specific locations. The storm drain collection system inspection program will include inspecting all catch basins and other storm drain components twice per year. Catch basins and other storm drain components will be cleaned at least twice per year unless the inspections demonstrate that cleaning is not necessary.

Measurable goal achievements:

MO3A: This MG was achieved. Most of the City's storm drains have an inlet and an outlet onto a street, therefore cleaning the streets (with street sweeping) takes care of the sediment caught in these storm drains. The storm drains along the Embarcadero area and above Tidelands Park which drain into the Bay have filters in the catch basins. These storm drains with filters are cleaned twice a year, once in October and again in May. The City cleaned the storm drains with a total of 4.5 yards of debris was removed from 32 storm drains.

Effectiveness Assessment:

Level 4: Reducing Loads from sources: 4.5 yards of debris was removed from the storm drains which drain directly to the Bay therefore this debris was eliminated from entering the Bay.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed; the City will continue implementing this BMP in the next permit year.

MO4: SWPPP for the Corporation Yard

BMP Description:

Implement Stormwater Pollution Prevention Plans (SWPPPs) and Self-Inspection Checklists for Public Works Corporation Yard

Measurable goal:

MO4A: Develop and implement SWPPPs for Public Services corporation yard.

MO4B: Use a self-inspection checklist to conduct annual inspections.

MO4C: Track the number and type of noncompliance and response time for preventive and corrective actions. Respond to all instances of noncompliance and implement corrective actions on 100% of noncompliance issues.

Measurable goal achievements:

MO4A: This MG was achieved. A SWPPP has been developed for the Public Services corporation yard.

MO4B: This MG was achieved. The Corporation yard was inspected using the checklist.

MO4C: This MG was achieved. The City Corporation yard was inspected using the SWPPP Checklist and the site was found to be in compliance, no major issues found.

Effectiveness Assessment:

Level 1: Documenting activities: The SWPPP and self-inspection checklist was completed this permit year.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

MO5: City Road Maintenance Procedures

BMP Description:

Implement City road maintenance procedures to prevent the discharge of pollutants during maintenance operations.

Measurable goal:

MO5A: Maintain the City road inventory.

MO5B: Develop and implement a road maintenance procedure manual in permit year two that includes water quality protections including, but not limited to, proper stockpiling, erosion and sediment control BMPs, spill prevention and cleanup, saw cutting, paving and striping, equipment maintenance, proper fueling, and storm drain system maintenance.

MO5C: Train road maintenance employees to use the manual.

Measurable goal achievements:

MO5A: This MG was achieved. The City has created a City road inventory to help determine which roads and when these roads need to be maintained. This permit year the City did develop/adopt a road maintenance procedure manual that includes water quality protections including, but not limited to, proper stockpiling, erosion and sediment control BMPs, spill prevention and cleanup, saw cutting, paving and striping, equipment maintenance, proper fueling, and storm drain system maintenance.

MO5B: This MG was achieved. The CASQA manual was used as a reference document to develop our manual. BMP SC-70 Road and Street Maintenance will be used by the City for the BMPs for street maintenance. In the next permit year the streets staff will be trained on using the manual.

MO5C: The City has three employees on the streets crew all three employees were trained on the road maintenance BMP manual.

Effectiveness Assessment:

Level 1: Documenting activities: The City road inventory has been created and maintained. The City Road maintenance procedures have been adopted, and employees trained.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

MO6: City Facility Inspections

BMP Description:

Conduct City Facility Stormwater Pollution Prevention inspections including, but not limited to, Parks, City Facilities and Buildings, Vehicle and Equipment service areas, fueling stations, city construction sites, water and wastewater facilities, corporation yard and Harbor facilities in the permit coverage area.

Measurable goal:

MO6A: Use a self-inspection checklist to inspect city facilities for stormwater pollution prevention practices and procedures.

MO6B: Inspect facilities annually at a minimum to ensure ongoing compliance. Respond to 100% of noncompliance conditions and track all noncompliance issues, corrective, or preventive action and response times associated with City facility inspections.

Measurable goal achievements:

MO6A: This MG was achieved. A self-inspection checklist was created to inspect City facilities for stormwater pollution prevention practices and procedures.

MO6B: This MG was achieved. The self-inspection checklist has been created in order to conduct the inspections. All City owned buildings were inspected using the checklist created. No

noncompliance issues were found. The SWPPP self-inspection checklist will be used for the Vehicle and Equipment service areas, fueling stations, corporation yard. The Harbor building is inspected with this checklist but the Harbor activities are inspected with the Clean Marina Program. The parks will be inspected next permit year, since the City landscape and lawn care stormwater pollution prevention procedures were being developed this permit year. The Erosion and Sediment inspections form (CON3) will be used for city construction sites. No inspection of city construction sites were inspected because the construction activity was contracted and it was the responsibility of the contract to conduct erosion control inspections. The City owned Parks will be inspected starting year 3. The City landscape and lawn care procedures were updated this permit year (MO11) and therefore the City inspections will verify these procedures are being implemented.

Effectiveness Assessment:

Level 1: Documenting activities: The self-inspection checklist was created to inspect City facilities. All City owned buildings were inspected.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed

MO7: Hazardous Materials Storage Spill Prevention and Control Procedures

BMP Description:

Create hazardous materials storage and spill prevention and control procedures for stormwater pollution prevention in City facilities.

Measurable goal:

MO7A: Create new hazardous materials storage and spill prevention and control procedures and practices for stormwater pollution prevention requirements.

MO7B: Include checks for proper hazardous materials storage and spill prevention on the self-inspection checklist used for the city facility inspections described in MO6.

MO7C: Report the number of noncompliance and corrective actions implemented. Respond to all instances of noncompliance and implement corrective actions on 100% of noncompliance issues.

Measurable goal achievements:

MO7A: This MG was achieved. The city created a hazardous materials storage and spill prevention and control procedures and practices for stormwater pollution prevention in year 1.

MO7B: This MG was achieved. The self-inspection checklist includes checks for proper hazardous material storage and spill prevention. A separate checklist was created for the spill response plan inspection

MO7C: This MG was achieved. The self-inspection checklist was used in order to conduct the inspections. No issues were found during the inspection.

Effectiveness Assessment:

Level 1 - Documenting Activities: A spill response plan was created and inspections are being conducted.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed; the City will continue with implementing this BMP next permit year and inspections will be completed.

MO8: City Vehicle Fuel Dispensing and Maintenance Facilities

BMP Description:

Implement procedures to prevent stormwater runoff pollution from City vehicle fuel dispensing and maintenance facilities.

Measurable goal:

MO8C: Inspect for compliance on an ongoing basis according to BMP MO6.

Measurable goal achievements:

MO8C: This inspection was completed with the SWPPP inspection and no issues were found. See MO4 and MO6

Effectiveness Assessment:

Level 1 - Documenting Activities: An audit was conducted on the vehicle maintenance and fueling procedures and practices for stormwater pollution prevention. No deficiencies found.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed. The City will continue to conduct inspections for the Fuel dispensing and vehicle maintenance with MO4 and MO6.

MO9: City Vehicle and Equipment Washing

BMP Description:

Implement procedures to prevent stormwater runoff pollution from City vehicle and equipment washing.

Measurable goal:

MO9B: Use vehicle washing systems that does not discharge into the storm drain system. Systems that treat and recycle wash water should be used.

Measurable goal achievements:

MO9B: The City has worked diligently in modifying new areas to wash vehicles and equipment. The Police Department has a pervious concrete area to wash their vehicles and equipment. The Fire Department has Pervious Pavers their equipment is washed. These areas were also done as demonstration areas, so now the Fire Department can see how well the permeable paver will "hold up" to a fire truck driving on them. All the other City vehicles and equipment are washed at the Corporation Yard, in the designated area which drains to the sanitary sewer.

Effectiveness Assessment:

Level 1: Documenting activities: The City has adequate locations for vehicle and equipment washing areas.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.

MO10: Clean Marina Program

BMP Description:

Maintain the Clean Marina Program (Appendix H). Harbor department participates in the Clean Marina California Program which includes an array of BMPs including but not limited to: good boat-cleaning practices, education, signage, notices, Marina rules and regulations, waste receptacles, spill prevention.

Measurable goal:

MO10A: Maintain the Clean Marina Program and inspection scores of at least 90%.

MO10B: Internally the City will inspect for compliance annually during the city facility inspections described in BMP MO6.

Measurable goal achievements:

MO10A,B: This MG was achieved. An official inspection did occur this permit year. An inspector came and preformed the audit and the City received a score of 94.6%, slightly down from the last score of 96% but the program has been revised, new elements added and numerous items made more stringent.

Effectiveness Assessment:

Level 1: Documenting activities: The inspection were completed.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed, the city plans to conduct the inspection in the same manner not permit year.

MO11: City Landscape and Lawn Care Program

BMP Description:

Implement City landscaping and lawn care stormwater pollution prevention procedures for City facilities in the permit coverage area including, but not limited to: parks, recreational facilities, City owned buildings, and parking lots.

Measurable goal:

MO11C: Inspect for compliance during City facility inspections described in BMP MO6.

Measurable goal achievements:

MO11C: Inspections were completed with MO6 City facility inspections. No major issues were found.

Effectiveness Assessment:

Level 1 - Documenting Activities: An inspection was completed.

Changes to BMP for next year/ Summary of activities for next year:

No changes are proposed.