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COMPREHENSIVE STORM WATER EDUCATION & OUTREACH PLAN

A PLAN FOR EDUCATING THE PUBLIC AND THE
CITY OF CHICO'S INTERNAL STAFF ON STORM
WATER POLLUTION PREVENTION AND PUBLIC
INVOLVEMENT OPPORTUNITIES

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PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

1 PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

The City of Chico is subject to the State Water Resources Control Board’s (SWRCB) National Pollution Discharge Elimination System (NPDES) Water Quality Order NO. 2013-0001-DWQ for Small Municipal Separate Storm Sewer Systems (Phase II MS4 Permit). As a result it is required to develop and implement a comprehensive education and outreach program. The purpose of this Comprehensive Storm Water Education and Outreach Plan is to effectively strategize and roadmap the implementation of the Education and Outreach Program requirements as described in Section E.7 of the Permit.

1.1 PUBLIC EDUCATION AND OUTREACH PLAN GOALS

Under the previous Phase II MS4 Permit, municipalities were required to perform general storm water outreach. The approach was very broad reaching in which the goal was to reach as many as possible with a single outreach blast consisting of wide reaching messages such as “*only rain down the drain*”. The current permit requires a much more targeted program. The over-arching goal of this Comprehensive Education and Outreach (E&O) Program is to reduce pollutant discharges in storm water and non-storm water discharges and to measurably increase the knowledge and awareness of the targeted audiences concerning specific and relevant topics. This Plan will take the “SMART” approach¹ to each action-oriented E&O task by having a message that when performed the City of Chico can measure its results.

Specific
Measurable
Action-oriented
Relevant
Time-focused

The following are the goals of this E&O Plan:

1.1.1 Reduce Pollutants in Storm Water

The main goal of the program is to make sure that pollutants and storm water do not mix. This E&O Plan identifies specific pollutants that the City of Chico is concerned about and are a priority for its storm water program. [Section 2](#) of this Plan provides a description of these pollutants and the rationale for their inclusion into the E&O program.

¹ [Getting in Step: A Guide for Conducting Watershed Outreach Campaigns](#), USEPA, December 2003, [EPA 841-B-03-002](#)

PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

1.1.2 Minimize Non-Storm Water Discharges

A primary goal, is still “*only rain down the drain*”. This Plan identifies specific illicit discharge activities that it targets with appropriate and effective educational resources.

1.1.3 Measurably Increase the Knowledge and Awareness of Targeted Audiences

A goal of this E&O Plan is to measurably increase the knowledge of targeted audiences regarding the following topics:

- The City of Chico’s storm water drainage system;
- Impacts of urban runoff on local receiving waters; and
- Potential BMP solutions for activities that threaten water quality.

Targeted Non-Storm Water Discharges:

- Pressure washing operations
- Mobile commercial car washing and detailing
- Charity car washes
- Excessive flows from landscape irrigation.

PLANNING AND ASSESSMENT ELEMENTS ALL LINKS IN A COMMON CHAIN



- OUTCOME LEVEL 1:** Storm Water Program Activities
- OUTCOME LEVEL 2:** Barriers and Bridges to Action
- OUTCOME LEVEL 3:** Target Audience Actions
- OUTCOME LEVEL 4:** Source Contributions
- OUTCOME LEVEL 5:** MS4 Contributions
- OUTCOME LEVEL 6:** Receiving Water Conditions

Measuring an increase in knowledge can be tricky business. Knowledge doesn’t have any units of measurement, it can’t be weighed on a scale, or through any other direct means of measurement. Therefore, it must be measured through indirect means such as improvements in water quality, changes in behavior, and other relational indicators that can be associated with increased knowledge of the targeted group. To do this, the Plan will utilize the performance and effectiveness evaluation system identified in the California Stormwater Quality Association’s (CASQA) latest “*Municipal Stormwater Program Effectiveness Assessment Guidance*” document² which utilizes six different outcome levels to “measure” effectiveness, or in our case, the growth of knowledge. This is the same approach that is taken in a more broad evaluation of the storm water program

through the Phase II MS4 Permit’s requirement (Section E.14) to perform a Program Effectiveness Assessment and Improvement Evaluation.

1.2 COLLABORATIVE EFFORT

This E&O Plan has been prepared as part of a collaborative effort of over 15 Central Valley Phase II MS4s. A collaborative approach to creating the core E&O Plan template was selected because there are many commonalities among the Central Valley Phase II MS4s regarding targeted pollutants of concern, activities, and audiences.

² At the time of this version of the E&O Plan, the latest published CASQA guidance is their “Municipal Stormwater Program Effectiveness Assessment Guidance,” (May 2007). However, CASQA is expecting to release their new guidance document in the spring of 2015. The depicted chain graphic showing the six outcome levels is based on their new approach.

SELECTING THE TARGET

2 SELECTING THE TARGET

In this section of the E&O Plan, we will hone in on our target. Specifically, we will identify the water quality problems that surface waters in or around City of Chico may be experiencing. Next, we will identify audiences that should be targeted based, not only on our findings concerning water quality problems, but also on where surface water drains, activities that occur within the MS4. We will also look at the audience itself and see if we can discern a little about who they are. After the audiences are identified, we will attempt to determine the baseline of knowledge and awareness that they have about the subjects of concern and select ways to monitor that level of knowledge, specifically through surveys. Taking all of the above information into consideration, we will then select the messages that need to be conveyed to protect water quality and identify to whom these messages should be directed.

2.1 IDENTIFICATION OF WATER QUALITY PROBLEMS

The Permit requires municipalities to base the outreach and education messages on local water quality concerns. In the following subsections, the City of Chico itemizes the water quality problems that are potentially threatening local surface waters.

2.1.1 TMDLs / 303d Listed Constituents

One of the first places to check for water quality concerns is with the State Water Board. What do they consider to be a problem or a potential problem for the surface waters local to the City of Chico? These concerns are called “impairments” and are identified on the Clean Water Act-required 303d list and through the TMDL process (refer to the side bar for more information). For Phase II MS4s, the State Water Board has provided a list of TMDLs that apply to them in Appendix G of the Permit. None of the listed TMDLs apply to the City of Chico. [Table 1](#) lists the 303d impairments that affect local receiving waters.

TMDLs and 303d Lists?

What are they and how do they apply to my E&O program? TMDL stands for Total Maximum Daily Load and it is an outcome of the Federal Clean Water Act. The Clean Water Act requires each State to identify all of the water bodies (including streams, creeks, rivers, lakes, bays, etc.) within the State. Then, each State is required to identify all of the beneficial uses of the water bodies they have identified, which can include drinking water, agriculture irrigation water, recreation, and biological uses such as cold, spawn, or migratory. The next step in the process is to identify all of the impairments that are hindering one or more of the water body’s beneficial uses. These impairments may be a physical condition such as low dissolved oxygen, pH, or temperature; or they can include toxic impairments such as mercury, pesticides, or pathogens. The impairments are recorded on what is called the “303d List,” referring to the section of the Clean Water Act where such a listing is required. The next step is to determine the maximum amount of each impairment the water body can assimilate on a daily basis without jeopardizing any of its beneficial uses – the total maximum daily load or TMDL. Once the TMDL has been established by the State’s Water Board, the daily allowed pollutant load is then divided up among the stakeholders. The term “stakeholders” refers to every entity that discharges to the water body, including NPDES permit holders (municipalities, industrial facilities, and construction sites); and other entities, such as agricultural operations. Each stakeholder’s “slice of the TMDL pie” is called a waste load allocation (WLA) and is typically expressed as a concentration.

SELECTING THE TARGET

TABLE 1 – 303D LISTED CONSTITUENTS OF CONCERN

| Watershed | Constituents and/or Conditions |
|------------------|--------------------------------|
| Sacramento River | Mercury and Pesticides |

Diazinon, Chlorpyrifos, and Other Pesticides – These are pesticides that have been used historically in residential, commercial, and agricultural applications.

Mercury & Methylmercury – Have you ever noticed warnings posted at docks and fishing piers about not eating large amounts of fish that were caught there? These warning signs are becoming increasingly more prevalent. This is due largely from methylmercury which is formed from inorganic mercury through a natural process of anaerobic organisms that live in aquatic environments including lakes, rivers, the California Delta, sloughs, retention basins, sediments, and soils. It can form just about anywhere there is decaying vegetation and slow water. Because Central Valley municipalities are predominately in or downstream of Gold Country, they have the likelihood of having methylmercury present. During the years of the Gold Rush, hopeful miners collectively used elemental inorganic mercury by the tons to extract gold. Much of this inorganic mercury was lost to the environment during the process. Since water flows downhill, much of that mercury has ended up in the waterways of the Central Valley and in the California Delta where it sits and slowly converts to methylmercury. There are other sources of mercury today that can add to the accumulative problem. These sources include e-waste, florescent light tubes and high density discharge lamps (such as mercury vapor lamps), older thermostats and switches, and other electronic equipment. Methylmercury is a “bio-accumulative”, meaning that it never really goes away and that it accumulates in the new host. For example, if it is in microscopic organisms that are ingested by fish, which in turn get ingested by a bird or a human – it carries through the various hosts and accumulates in the tissues of the final host. E&O efforts should target reducing the introduction of additional inorganic mercury into the environment by controlling how mercury containing items are disposed of and promoting the replacement of these items with mercury-free alternatives. E&O messages should center on “no illegal dumping”, proper e-waste disposal, and selecting reduced-mercury or mercury-free alternatives.

Pathogens – These include any agent, especially a microorganism (e.g. viruses or bacteria), able to cause disease. It can come from a wide variety of sources including residential, agricultural, industrial, and natural causes. E&O efforts should target pet waste. E&O messages should center on cleaning up and proper disposal of pet wastes.

Even though pathogens is not a 303d impairment that affects local receiving waters (Sacramento River), the City of Chico would like to provide a message to the general public in regards to the effects that pathogens (with a focus on pet waste) could have on our local waterways.

TABLE 2 – SUMMARY OF THE CITY OF CHICO’S 303D-BASED MESSAGES

| |
|-----------------------------|
| Messages: |
| Recycle your e-waste |
| Scoop the Poop |
| Our Water Our World |

SELECTING THE TARGET

2.1.2 Illicit Discharges and Connections

Another target for the E&O program are illicit discharges. Remember the motto “*only rain down the drain*”. So we will need to identify **common sources** of unauthorized non-storm water discharges in the City of Chico. What is unauthorized? Well, it is easier to identify what is authorized because it is listed in the Phase II MS4 Permit. Authorized non-storm water discharges include the following:

- ✓ water line flushing;
- ✓ ***individual residential*** car washing;
- ✓ diverted stream flows;
- ✓ rising ground waters;
- ✓ uncontaminated ground water infiltration (as defined at 40 C.F.R. §35.2005(20)) to separate storm sewers;
- ✓ uncontaminated pumped ground water;
- ✓ discharges from potable water sources;
- ✓ foundation drains;
- ✓ air conditioning condensation;
- ✓ springs;
- ✓ water from crawl space pumps;
- ✓ footing drains;
- ✓ flows from riparian habitats and wetlands;
- ✓ flow from fire-fighting activities;
- ✓ ***de-chlorinated*** swimming pool discharges; and
- ✓ incidental runoff from landscaped areas.

One new discharge prohibition in the Phase II MS4 Permit concerns excessive runoff from landscaped areas. Technically, it is defined in the Permit as ***discharges in excess of incidental runoff***. Incidental runoff is defined as unintended amounts of runoff such as minimal over-spray from sprinklers that escapes the area of intended use. Irrigation water leaving an intended use area is considered excessive if it is due to excessive application, intentional overflow or application, or negligence. This is a common issue in just about every municipality and, especially with the importance of drought-conscious water conservation, it is a key target for the E&O Plan.

Other illicit discharge E&O will be directed towards common sources of municipal non-storm water discharges as identified in Table 3.

TABLE 3 – COMMON SOURCES OF ILLICIT DISCHARGES IN THE CITY OF CHICO

| Type of Discharge | Targeted Audience | Message |
|--|---------------------------------|---|
| Washing of business exterior surfaces and paved areas | Business owners and operators | When washing the exterior surfaces or the paved areas of a business, find a way to keep flows from going into a storm drain. |
| Washing of floor mats and equipment | Restaurant owners and operators | Wash mats in a way to keep flows from going into a storm drain in an area that drains to the sanitary sewer system, or at a self-serve car wash facility. |

SELECTING THE TARGET

| Type of Discharge | Targeted Audience | Message |
|---|--|--|
| Car washing that is not by an individual residential occupant | Mobile detailers and car washing operations; new or used car lots; fundraiser car washes | Wash water from car washing is not allowed to go into the storm drain. Possible options include using a commercial car wash facility or diverting flows to a permeable area. |
| Dumping janitorial mop-buckets and other janitorial and carpet cleaning wastewater | Business owners and operators; janitorial contractors; carpet cleaning contractors | Dump janitorial mop water and carpet cleaning water into the sanitary sewer or on landscaped areas. |
| Illegal dumping | Residents and businesses | Educate about where storm drains discharge and that there is no treatment before water discharges. Provide education on alternatives for the disposal of used oil, chemicals, and paint. |

2.1.3 Trash

Up to this point, the water quality problems that we have been discussing in this Plan have been water body specific or regional; however, there is a water quality problem that poses a State-wide threat – trash. We all see it and some of its unsightly effects when we visit the beach, an estuary, river, lake or other favorite water recreational resources. But the damage is not limited to visual effects. Studies have shown that trash presents a real threat to public health and to the health of organisms that depend upon aquatic and marine ecosystems. Trash has become a primary target of the State Water Board’s public education and outreach program³ as demonstrated by the video link shown in Figure 2. E&O efforts for this water quality threat should be community wide. E&O messages should include taking personal responsibility for keeping municipal streets, neighborhoods, and parks trash-free. These messages are especially appropriate for school-age children to educate the next generation about the importance of not littering and keeping trash out of the storm drainage system. The E&O program should also educate the public on the threat that trash poses to them and to the water bodies in and around the City of Chico.



TABLE 4 – SUMMARY OF TRASH & LITTER POLLUTION PREVENTION MESSAGES

| Messages: |
|---|
| Only rain down the storm drain |
| What’s in your gutter? |
| Keep your butt out of the gutter |

³ To learn more about the State Water Board’s trash program, go to www.waterboards.ca.gov/water_issues/programs/trash_control/

SELECTING THE TARGET

2.2 IDENTIFICATION OF TARGET AUDIENCES

Now that the water quality problems for the municipality have been established, the next step is to identify who are the target audiences for these problems. The target audience is the group of people you want to reach with your messages. Target audiences may sometimes be obvious, while other target groups may require some research to determine who exactly would benefit most from the message that is attempting to be conveyed. If the target audience is too broad, the targeted message may not be effective on the intended target.

Targeted audiences can be segmented by a variety of distinctive characteristics including geographical locations, demographics, and activities or business types.

2.2.1 Geographic Locations

For some pollutants of concern, it makes sense to target an audience by geographical location. This is particularly true for issues that involve illicit discharges, illegal dumping, and pollutants that can be attributed to a certain geographical area of the municipality. During Year 2 of the Phase II MS4 Permit, municipalities were required to develop an outfall map which identified “*priority drainage areas*” that included older infrastructures, industrial/commercial (mixed use) areas, a past history of illicit discharges or dumping, areas with onsite sewage disposal systems, or areas that are likely to have illicit discharges. These regional areas, businesses, activities, and communities should be targeted with the messages identified on Tables 2, 3, and 4. In Table 5, identify geographical audiences within the City of Chico that are particularly applicable to the listed water quality concerns.

TABLE 5 – GEOGRAPHICAL AUDIENCES

| Water Quality Concern | Area of the Municipality from where the Water Quality Concern Originates |
|---------------------------|--|
| Pesticides | City-wide |
| Mercury | City-wide |
| Pathogens | Within Bidwell Park |
| Illicit discharges | City-wide |
| Trash | City-wide |

2.2.2 Demographics

For some pollutants of concern, the appropriate audience target is based on one or more demographic characteristics. These characteristics include such things as ethnicity, gender, age, income, recreational activities, organizational affiliations, or land use types (e.g., industrial, residential, commercial, open space). Knowing and

Demography *noun* \di-'mā-grə-fē\
The study of changes (such as the number of births, deaths, marriages, and illnesses) that occur over a period of time in human populations; also a set of such changes; the statistical study of human populations especially with reference to size and density, distribution, and vital statistics.

understanding the demographics of a municipality will get the desired messages effectively delivered to the right audience. For example, if the pollutants of concern include pesticides and fertilizers, we would most likely not have immediate results if messages about these pollutants are delivered to school-age children. Although there may be a long-term benefit by telling school children about these pollutants, we

Source: www.merriam-webster.com/

SELECTING THE TARGET

would probably get a much greater immediate benefit by targeting homeowners and landscape maintenance contractors.

Another aspect to evaluating demographics is to identify the way that a particular group receives messages. We would not want to primarily communicate a message through the City of Chico's website to a group that tends to rarely go online. We want to identify media to which the demographic-based group tends to have exposure. We also want to look at places the targeted demographic group frequents; such as homeowners who go to home improvement centers, nurseries, or hardware stores to buy their landscape maintenance chemicals. If we were targeting this group, it might be effective to see if we could disseminate educational materials at these types of retail businesses.

Table 6 identifies water quality concerns and, where possible, associates them with one or more demographic-based groups.

SELECTING THE TARGET

TABLE 6 – DEMOGRAPHIC-BASED AUDIENCES

| Water Quality Concern | Demographic-Based Groups likely to Use, Apply, or Discharge the Pollutant of Concern | Effective Ways to Convey Messages to the Targeted Group |
|-----------------------|--|---|
| Pesticides | Homeowners, landscape maintenance contractors, pest control contractors | <p><i>Media of choice:</i> Brochures, Website, Our Water Our World program</p> <p><i>Locations to disseminate information:</i> Keepchicoclean.org, Garden Supply Stores</p> <p><i>Common language groups:</i> English, Spanish</p> |
| Mercury | Community-wide | <p><i>Media of choice:</i> Website</p> <p><i>Locations to disseminate information:</i> Keepchicoclean.org, Buttcounty.net</p> <p><i>Common language groups:</i> English</p> |
| Pathogens | Pet owners | <p><i>Media of choice:</i> Brochures, Posters in Bidwell Park, Dog License, Website</p> <p><i>Locations to disseminate information:</i> Pet Stores, Bidwell Park, City Hall, Keepchicoclean.org</p> <p><i>Common language groups:</i> English</p> |

SELECTING THE TARGET

| Water Quality Concern | Demographic-Based Groups likely to Use, Apply, or Discharge the Pollutant of Concern | Effective Ways to Convey Messages to the Targeted Group |
|---------------------------|--|--|
| Illicit discharges | Community-wide | <p><i>Media of choice:</i> Website, Newspaper Advertisement, Utility Bill Insert, Television Commercials</p> <p><i>Locations to disseminate information:</i> Keepchicoclean.org, Chico News and Review, Chico ER, Cal Water Bill, Television Commercials</p> <p><i>Common language groups:</i> English</p> |
| Trash | Community-wide | <p><i>Media of choice:</i> Website, Newspaper Advertisement, Utility Bill Insert, Television Commercials</p> <p><i>Locations to disseminate information:</i> Keepchicoclean.org, Chico News and Review, Chico ER, Cal Water Bill, Television Commercials</p> <p><i>Common language groups:</i> English</p> |

2.2.3 Activities and Business Types

Targeted audiences many times are based on what they inherently do. For example, pest control contractors use pesticides; power washing operations have non-storm water runoff; and charity car washes produce not only sign-waving participants but also sudsy water. The Phase II MS4 permit requires that the City of Chico reach out to certain activities and businesses which are included on Table 7.

SELECTING THE TARGET

TABLE 7 – ACTIVITY OR BUSINESS-BASED AUDIENCES

| Activity or Business likely to Use, Apply, or Discharge the Pollutant of Concern | Pollutants of Concern | Effective Ways to Convey Messages to the Targeted Group |
|--|---|--|
| Organized Car Washes | <p>Illicit discharges</p> <p>Soaps, detergents, and other substances that may demand oxygen or affect the pH of the receiving water</p> | <p><i>Media of choice:</i></p> <p>Brochures, Website, Billboards, Email</p> <p><i>Locations to disseminate information:</i></p> <p>City Hall, Keepchicoclean.org, Multiple locations for billboards</p> <p><i>Common language groups:</i></p> <p>English</p> |
| Mobile Cleaning and Pressure Washing Operations | <p>Illicit discharges</p> <p>Soaps, detergents, and other substances that may demand oxygen or affect the pH of the receiving water</p> | <p><i>Media of choice:</i></p> <p>Brochures</p> <p><i>Locations to disseminate information:</i></p> <p>Mail informational letter and brochure to mobile cleaning and pressure washing operations</p> <p><i>Common language groups:</i></p> <p>English</p> |
| Landscape Irrigation | <p>Illicit discharges</p> | <p><i>Media of choice:</i></p> <p>Website, Utility Bill Insert</p> <p><i>Locations to disseminate information:</i></p> <p>Keepchicoclean.org, Cal Water Bill Insert</p> <p><i>Common language groups:</i></p> <p>English</p> |
| Landscape Maintenance Operations | <p>Organic enrichment from grass cuttings, leaves, and organic debris</p> <p>Pesticides and herbicides</p> <p>Fertilizers and nutrients</p> | <p><i>Media of choice:</i></p> <p>Informational Handouts (Our Water Our World)</p> <p><i>Locations to disseminate information:</i></p> <p>Home Depot, City Hall</p> <p><i>Common language groups:</i></p> <p>English, Spanish</p> |

SELECTING THE TARGET

| Activity or Business likely to Use, Apply, or Discharge the Pollutant of Concern | Pollutants of Concern | Effective Ways to Convey Messages to the Targeted Group |
|--|------------------------------------|---|
| Construction Site Operators | Sediment pH altering substances | <i>Media of choice:</i> Brochure <i>Locations to disseminate information:</i> City Hall – Building Permit Counter <i>Common language groups:</i> English |

2.3 IDENTIFICATION OF THE BASELINE OF KNOWLEDGE AND AWARENESS

Now that we have identified the pollutants of concern, the target audiences, and the messages to convey, we need to turn our attention to understanding the baseline knowledge of the targeted audience on the subject of interest. The Phase II MS4 Permit, however, requires two specific ways. The City of Chico is required to obtain public input in the development of the City of Chico’s E&O program. The second requirement is for the City of Chico to conduct surveys at least twice during the Permit’s term (July 1, 2013 – June 30, 2018) to gauge the level of awareness in the target audiences and the effectiveness of the E&O program.

2.3.1 Public Involvement

Public involvement can sometimes be an allusive objective. For some municipalities it happens almost naturally and for others it is something that has to be developed and nurtured. The City of Chico will post the draft Education and Outreach Plan on the keepchicoclean.org website for public input.

2.3.2 Surveys

As previously mentioned, the Permit requires the municipality to perform two surveys during the Permit term. The purpose of the first survey is to establish a baseline of awareness of the targeted audiences concerning the topics of concern. The second survey is performed at a later date, presumably after implementation of the E&O Plan and the “broadcasting” of messages to the targeted groups. Ideally, this survey will show whether or not there has been an increase in knowledge about a subject of concern within the targeted group and, if designed and executed correctly, it should show areas that need further education and provide insight to what should be prioritized. The City of Chico has continued to survey every year as was stated in the Education and Outreach Plan from the prior permit. The City has a baseline from Year 1 and Year 2 and will continue to survey annually, so that the Education and Outreach Plan can be changed to be more effective depending on the survey results.

Table 8 identifies the surveys that will be conducted during the Permit term.

SELECTING THE TARGET

TABLE 8 – CITY OF CHICO STORM WATER AWARENESS SURVEYS

| Location & Method | Baseline or Follow-up? | Target Audience(s) | Compliance Year that the Survey will be Conducted |
|---|------------------------|--------------------------------|---|
| Silver Dollar Fair, in-person | Baseline | Community Wide | Year 1 |
| Silver Dollar Fair, in-person | Baseline | Community Wide | Year 2 |
| Silver Dollar Fair or Farmer’s Market(s), in-person | Follow-up | Community Wide | Year 3 |
| Silver Dollar Fair or Farmer’s Market(s), in-person | Follow-up | Community Wide | Year 4 |
| Silver Dollar Fair or Farmer’s Market(s), in-person | Follow-up | Community Wide | Year 5 |
| Kids and Creeks, in-person | Baseline | 5 th Grade Students | Year 3 |
| Kids and Creeks, in-person | Follow-up | 5 th Grade Students | Year 4 and Year 5 |
| Chico Unified School District, in-person | Baseline | 5 th Grade Students | Year 4 |

2.4 PUTTING IT TOGETHER - PRIORITIZATION OF MESSAGES

In the preceding sections, the City of Chico identified local water quality concerns, messages to communicate, the target audiences, and ways to measure the baseline and increase of knowledge within the target audiences. Now it is time to develop a focused approach to the E&O program. In this section of the E&O Plan, we want to pull all the pieces together to be able to state very concisely who we want to talk to and what do we want to tell them. And, we want to prioritize the messages. If we could only convey one message, what would be the most important? Prioritization of messages can be very subjective. After all, each of the water quality concerns are important and pose a potentially equal threat to water quality. But, we do have some clues available to us as to what should be prioritized. These clues include:

Water Quality Testing Results – The analytical results are the bottom line. Is water quality improving or worsening? When analytical data indicates a worsening of water quality, the priority of the related E&O messages should be elevated. Likewise, improvements in water quality could justify lowering the priority level. Analytical data is not always available for each pollutant of concern, but when it is available the City of Chico will review it to see if there has been any change in water quality. The Phase II MS4 does not require monitoring for all pollutants of concern; and, for those that it does require testing, data is not generated every year. However, there are some internal and external sources of analytical data available to the municipality, such as external data from The Stream Team Citizen Monitoring Program. The City of Chico will evaluate data it generates from the analytical testing of non-storm water flows from its own outfalls as required in Section E.9 of the Phase II MS4 Permit and data generated from the receiving water monitoring that may be required of the municipality in Section E.13 of the Permit.

Field Data Trends – Another clue to help assess the prioritization of storm water messages is field data, such as volume of trash removed from the drainage system or from street sweeping, number of illicit discharges or reported cases of dumping, amount of e-waste or household hazardous waste taken to approved recycling facilities. Trends in field data can be used to indicate if threats to water quality are on the increase or are diminishing. For those on the increase, the municipality would want to elevate the

SELECTING THE TARGET

priority of the message associated with that pollutant or water quality condition. But, downward trends may allow the priority level to be lowered. For example, if field data from Public Works shows that the volume of trash captured and removed from the storm drainage system is decreasing over the last several years, but that the amount of organic debris in residential neighborhood drains remains high, the prioritization of messages about trash and litter could be lowered and the prioritization of messages about grass cuttings and blowing organic debris into the street could be elevated.

Survey Results – As mentioned in [section 2.3.2](#), surveys can be used to provide some more clues about how to prioritize the storm water E&O messages. Careful evaluation and analysis of survey results should be done to identify gaps in knowledge in target audiences about the subjects of concern. A gap in knowledge would justify raising the priority level of related messages. The survey analyst should also look for growth of knowledge in the follow-up surveys, which may justify lowering the priority level and allowing another pollutant-of-concern’s message to be elevated.

Table 9 lists the messages that were identified earlier in Tables 3, 4, and 7 and for the target audience(s) and the associated water quality concern(s) associated with those messages as identified in Tables 5, 6, and 7. The prioritization of the message based on available water quality testing results, field data trends, and survey results.

TABLE 9 – SUMMARY & PRIORITIZATION OF STORM WATER E&O MESSAGES

| Priority (1 being the highest) | Message | Target Audience(s) | Pollutant(s) of Concern |
|-----------------------------------|--|---|-------------------------|
| 1 | Only rain down the storm drain | Community-wide | Trash |
| 2 | What’s in your gutter? | Community-wide | Trash |
| 3 | Keep your butt out of the gutter | Smokers | Trash |
| 4 | Our Water Our World | Homeowners, landscape maintenance contractors, pest control contractors | Pesticides |
| 5 | Recycle your e-waste | Community-wide | Mercury |
| 6 | When washing the exterior surfaces or paved areas of a business, find a way to keep flows from going into a storm drain. | Business owners and operators | Illicit discharges |
| 7 | Wash mats in a way to keep flows from going into a storm drain in an area that drains to the sanitary sewer system, or at a self-serve car wash facility. | Restaurant owners and operators | Illicit discharges |
| 8 | Wash water from car washing is not allowed to go into the storm drain. Possible options include using a commercial car wash facility; diverting flows to a permeable area; or washing cars so that water is discharged to the sanitary sewer. Permission by the municipality may be needed prior to discharging to the sanitary sewer. | Mobile detailers and car washing operations; New or used car lots; fundraising car washes | Illicit discharges |

SELECTING THE TARGET

| Priority (1 being the highest) | Message | Target Audience(s) | Pollutant(s) of Concern |
|-----------------------------------|---|--|-------------------------|
| 9 | Dump janitorial mop water and carpet cleaning water into the sanitary sewer. | Business owners and operators; janitorial contractors; carpet cleaning contractors | Illicit discharges |
| 10 | Educate about where storm drains discharge and that there is no treatment before water discharges. Provide education on cost-effective alternatives for the disposal of used oil, chemicals, and paint. | Residents and businesses | Illicit discharges |
| 11 | Scoop the poop | Pet owners | Pathogens |

INVENTORY OF EXISTING RESOURCES

3 INVENTORY OF EXISTING RESOURCES

Education programs can be expensive and time consuming. Storm water managers who have limited time and resources need to “work smart”, so the City of Chico will try to tap into resources, outreach tools, and public participation opportunities that already exist. Furthermore, the Permit encourages municipalities to utilize existing information and resources and to participate in collaborative E&O programs. In this section and with the use of the resource reference and worksheet in [Appendix 5](#), the City of Chico will perform an inventory of these existing resources.

During Year 1 of the Permit, the City of Chico was required to select and identify one or more of the following public E&O options. The option selected by the City of Chico is denoted with an “X”.

- Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts outreach and education on behalf of its members; **or**
- Contributing to a regional outreach and education collaborative effort (a regional outreach and education collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional outreach and education. Regional outreach and education collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes, then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); **or**
- Fulfilling outreach and education requirements within their jurisdictional boundaries on their own; **or**
- A combination of the previous options, so that all requirements are fulfilled.

IMPLEMENTATION OF THE PLAN

4 IMPLEMENTATION OF THE PLAN

4.1 IDENTIFY THE E&O AND PUBLIC INVOLVEMENT TASKS

In Section E.7.a., the Phase II MS4 Permit lists thirteen specific activities, or “implementation level” tasks that each municipality must incorporate into its comprehensive E&O program. In addition, Section E.8. requires the City to encourage public involvement and participation in the City of Chico’s storm water program. The following lists the E&O and public participation tasks and provides a summary of how the City of Chico will satisfy each requirement.

E&O Tasks:

Task 1

Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.

This E&O Plan meets the requirements of Task 1 in that it identifies in [Section 2](#) the water quality problems and target audiences. The Plan identifies in [Sections 2.4 and 4.4](#) how the City of Chico will measure and evaluate the effectiveness of its E&O program and the strategy used to prioritize water quality issues. In [Appendix 6](#), the E&O Action Plan identifies who is responsible for implementing each task and provides an implementation schedule.

Task 2

Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.

[Section 2.3.2](#) and [Table 8](#) identify how the City of Chico will implement surveys at least twice during the permit term. [Appendix 4](#) provides additional reference and guidance material about performing surveys.

Task 3

Develop and convey a specific storm water message that focuses on the following:

- 1) *Local pollutants of concern*
- 2) *Target audience*
- 3) *Regional water quality issues*

In [Section 2](#) of this E&O Plan, the City of Chico walks through the process of identifying the above three items and the related messages. These messages are summarized and prioritized in [Table 9](#).

Task 4

Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);

In [Section 2](#) of this E&O Plan, the City of Chico considered the demographics of the target audiences, including dominant languages. [Table 6](#) summarizes the demographic-based approach for each water

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quality concern and identifies the media of choice, locations to disseminate information, and the common language groups. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about what media will be used, and where it will be used to convey the messages identified in Table 9 to the target audiences.

Task 5

Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program;

[Section 2.3.1](#) of this Plan identifies the method that the City of Chico will use to solicit and utilize public input in the development of the E&O program.

Task 6

Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy;

Table 6 summarizes the demographic-based approach for each water quality concern and identifies the media of choice, locations to disseminate information, and the common language groups. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about what media will be used, and where and how it will be used to convey the messages identified in Table 9 to the target audiences.

Task 7

Convey messages to explain the benefits of water-efficient and storm water-friendly landscaping, using existing information if available;

These two areas are identified in Table 7 as Permit-mandated E&O topics. Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. [Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the messages. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the target audiences.

Task 8

Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, non-emergency phone number with voicemail, which is checked daily;

During Year 1 of the Phase II MS4 Permit term, the City of Chico prepared a Spill Response Plan that identifies how spills are reported, tracked, responded to, and followed up. The City of Chico's website and keepchicoclean.org lists the contact information to report spills including emergency phone numbers. These kiosks will be situated near storm drains or creeks. Consistent with the Spill Response Plan, the City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#) of this E&O Plan) specific information about how it will achieve the above illicit discharge reporting and tracking requirements.

Task 9

Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers;

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These activities are identified in Table 7 for the Permit-mandated E&O audiences. The messages for these activities are identified in [Section 2.1.1](#) and in Table 9. Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. [Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the messages. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the target audiences.

Task 10

*Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school-age children about storm water runoff and how they can help protect water quality habitat in their local watershed(s). The Permittee is **encouraged** to use environmental and place-based, experiential learning materials that are integrated into school curricula and school facility management. In the case that an environmental and place-based, experiential learning local program does not exist, the Permittee may use California's Education and Environment Initiative Curriculum or equivalent.*

[Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the above-referenced messages to school-age children. The applicable schools are listed in [Appendix 7](#) of this E&O Plan. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the schools and school-age children.

Task 11

Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.

These activities and related messages are identified in Table 3 and are included in Table 7 as Permit-mandated E&O audiences and activities. Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. [Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the messages. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the target audiences.

Task 12

Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction. The Permittee may use the Sacramento Stormwater Quality Partnership's River Friendly Carwash Program, or equivalent, for guidance.

This task seems to be very similar or possibly redundant with Task 11. This activity and related messages are identified in Table 3 and are included in Table 7 as a Permit-mandated E&O audience and activity. Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. [Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the messages. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the target audience.

Task 13

Develop and convey messages specific to mobile cleaning and pressure wash businesses.

This task seems to be very similar or possibly redundant with Task 11. These activities and related messages are identified in Table 3 and are included in Table 7 as Permit-mandated E&O audiences and activities.

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Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. [Appendix 5](#) provides an inventory of existing resources and tools that the City of Chico may utilize to convey the messages. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about how it will convey these messages to the target audiences.

Public Participation Tasks:

Task 1

Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.

In [Appendix 6](#), the E&O Action Plan identifies who is responsible for implementing the public involvement tasks and provides an implementation schedule. [Section 2.3.1](#) of this Plan identifies the methods that the City of Chico will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.

Task 2

Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.

[Section 2.3.1](#) of this Plan identifies the method that the City of Chico will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.

Task 3

Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).

[Appendix 5](#) provides an inventory of existing public involvement opportunities in which interested citizens can become involved. The appendix also lists other common activities that the City of Chico can offer as involvement opportunities for those interested individuals or community groups. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) specific information about what involvement opportunities it will offer to the public.

Task 4

Ensure the public can easily find information about the Permittee's storm water program.

Information about the City of Chico's storm water program can be found online at keepchicoclean.org or they can call 530-879-6900 to request information or to speak to a program representative.

Task 5

Actively engage in the Permittee's Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort.

[Appendix 5](#) provides a website link to the North Valley IRWMP. The City of Chico identifies in the E&O Action Plan (included in [Appendix 6](#)) the group in which it participates and their level of involvement.

4.2 IDENTIFICATION OF WHO IMPLEMENTS THE PLAN

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Ultimately the Legal Responsible Person (LRP) for the City of Chico who signed the Notice of Intent is responsible for the implementation of all of the Permit requirements. But, authority for the implementation of the overall Storm Water Program has been delegated to a staff person who functions in the role of the Storm Water Program Coordinator. The LRP and the Storm Water Coordinator positions are occupied by the following persons:

| | |
|----------------------------------|---|
| Legal Responsible Person: | Brendan Ottoboni Acting Public Works Director Public Works Department 530-879-6900 Brendan.ottoboni@chicoca.gov |
| Storm Water Program Coordinator: | Richard Burgi Associate Civil Engineer Public Works Department 530-879-6953 Richard.burgi@chicoca.gov |

In addition, for each implementation level task, a staff person has been designated by the City of Chico to assure that it is accomplished. Persons responsible for the implementation of each specific E&O task have been identified on the E&O Action Plan included in [Appendix 6](#) of this Plan.

4.3 SCHEDULE FOR IMPLEMENTATION

This Comprehensive Storm Water Education & Outreach Plan and program are required by the Phase II MS4 Permit to be developed and implemented by June 30, 2015. The requirement to “implement” does not mean to complete the entire E&O program by that date, but to set it into motion and to implement the various E&O tasks identified in [Section 4.1](#) per an established schedule. The schedule for the implementation of the 13 E&O tasks is included in the E&O Action Plan that is contained in [Appendix 6](#) of this Plan. Each year, during the Performance Effectiveness Assessment and Improvement evaluation and the annual reporting process, the E&O task schedule will be assessed in regards to any changing priorities as described in [Section 2.4](#) of this Plan. As necessary, schedules will be modified to assure that priority tasks are achieved ahead of those having lower priorities.

4.4 MEASURING EFFECTIVENESS OF THE PLAN

After performing the tasks outlined in this Plan, the City of Chico will evaluate the effectiveness the E&O program during the Performance Effectiveness Assessment and Improvement Plan (PEAIP) evaluation and the annual reporting process. This evaluation will be completed using the CASQA guidance for the PEAIP

The effectiveness assessment will evaluate the E&O program by assessing the six outcome levels with the following three steps:

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Step A – Characterizing the Problem: This step involves three tasks: 1) evaluating existing conditions; 2) defining problem conditions; and 3) prioritizing problem conditions. The prioritization of problem conditions will lead to Step B which will target the outcomes. As we already saw in [Section 2.4](#) of this E&O Plan, the City of Chico has performed these three steps in initially prioritizing its program. However, on an annual basis the City of Chico will utilize the PEAIP to re-evaluate priority E&O targets and to adjust its E&O program.

Step B – Targeting the Outcomes: This step of the effectiveness assessment also has three tasks: 1) identifying end-state targets; 2) establishing interim targets; and 3) identifying data requirements. In taking this step, we are identifying the final objectives (end-state) of our E&O program (i.e. raising dissolved oxygen levels in downstream receiving water). But, we also set some intermediate goals, such as improvement of water quality of the MS4 discharges. We also identify the metrics that will be used to track progress towards the ultimate objectives.

Step C – Documenting Knowledge and Data Gaps: This third step also has three tasks: 1) compiling knowledge and data gaps from Step A; 2) compiling knowledge and data gaps from Step B; and 3) consolidating the knowledge and data gap list. Essentially, this is the processing of information gathered about the water quality problems, our E&O activities, and the measurement metrics. Through this process, we are assessing what the data is telling us about the success of our program. The data may indicate that it is too early to measure improvements or that we need more information to perform a proper evaluation.

The results of the annual effectiveness assessments will be reported in the annual reports and will be used to adjust and enhance the E&O program.

APPENDIX 1 - GLOSSARY

[Left intentionally blank.]

Glossary for the Education & Outreach Plan⁴

Activism – is the practice of action or involvement as a means of achieving goals.

Beneficial Uses - The Uses of water of the State protected against degradation, such as domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation and preservation of fish and wildlife, and other aquatic resources or preserves.

Catch Basin - A catch basin (a.k.a., storm drain inlet) is an inlet to the storm drain system that typically includes a grate or curb inlet where storm water enters the catch basin and a sump to capture sediment, debris and associated pollutants. Catch basins act as pretreatment for other treatment practices by capturing large sediments. The performance of catch basins at removing sediment and other pollutants depends on the design of the catch basin (e.g., the size of the sump), and routine maintenance to retain the storage available in the sump to capture sediment.

Community Based Social Marketing (CBSM) - A systematic way to change the behavior of communities to reduce their impact on the environment. Realizing that simply providing information is usually not sufficient to initiate behavior change, CBSM uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

Discharge of a Pollutant - The addition of any pollutant or combination of pollutants to waters of the United States from any point source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharger - Any responsible party or site owner or operator within the Permittees' jurisdiction whose site discharges storm water runoff, or a non-storm water discharge.

Erosion - The physical detachment of soil due to wind or water. Often the detached fine soil fraction becomes a pollutant transported storm water runoff. Erosion occurs naturally, but can be accelerated by land disturbance and grading activities such as farming, development, road building, and timber harvesting.

Healthy Watershed - Healthy watersheds are watersheds that function well ecologically and are sustainable. They support healthy, diverse aquatic habitat, have healthy riparian areas and corridors with sufficient vegetative buffer area to minimize land pollutant runoff into surface waters, sufficient cover and canopy to maintain healthy habitat, and have near natural levels of sediment transport. Surface waters meet water quality objectives, and sediments are sufficiently low in pollutants to provide for healthy habitat. Groundwaters are near natural levels in quantity and quality, for water supply purposes and for base flow for sustaining creek habitat and migratory fish routes. A Healthy Watershed sustains these characteristics through measures that ensure the dynamics that provide these healthy factors and functions are protected. For example, watersheds must be protected, through low impact development or other forms of protection, from hydromodification that adversely affects recharge areas' function or creeks' bed or bank stability. Creek buffer/riparian areas must be protected from land disturbance activities. Healthy sustainable watersheds use less energy for imported water, have fewer greenhouse gas emissions, and a lesser carbon footprint than unhealthy watersheds.

⁴ Definitions (unless otherwise specified) are from the Phase II MS4 NPDES General Permit, Order No. 2013-0001-DWQ, Attachment I; www.swrcb.ca.gov/water_issues/programs/stormwater/docs/phsii2012_5th/att_i_glossary_final.pdf

Illicit Discharge - Any discharge to a municipal separate storm sewer (storm drain) system (MS4) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges not composed entirely of storm water and discharges that are identified under the Discharge Prohibitions section of this General Permit. The term illicit discharge does not include discharges that are regulated by an NPDES permit (other than the NPDES permit for discharges from the MS4).

Impaired Waterbody - A waterbody (i.e., stream reaches, lakes, waterbody segments) with chronic or recurring monitored violations of the applicable numeric and/or narrative water quality criteria. An impaired water is a water that has been listed on the California 303(d) list or has not yet been listed but otherwise meets the criteria for listing. A water is a portion of a surface water of the state, including ocean, estuary, lake, river, creek, or wetland. The water currently may not be meeting state water quality standards or may be determined to be threatened and have the potential to not meet standards in the future. The State of California's 303(d) list can be found at <http://www.swrcb.ca.gov/quality.html>.

Municipal Separate Storm Sewer System (MS4) - The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2." In practical terms, operators of MS4s can include municipalities and local sewer districts, state and federal departments of transportation, public universities, public hospitals, military bases, and correctional facilities. The Storm water Phase II Rule added federal systems, such as military bases and correctional facilities by including them in the definition of small MS4s.

National Pollutant Discharge Elimination System (NPDES) - A national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA.

Outfall - A point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States. Specific to Ocean Plan monitoring, outfalls include those measuring 18 inches or more in diameter.

Permittee/Permittees - Municipal agency/agencies and Non-traditional Small MS4s that are named in and subject to the requirements of this General Permit.

Pollutant - Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollutants of Concern - Pollutants of concern found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides.

Pollution - An alteration of the quality of the waters of the state by waste to a degree which unreasonably affects the beneficial uses of the water or facilities which serve those beneficial uses.

Priority Storm Drain Inlets - Storm drain inlets that drain to sensitive receiving water bodies or water bodies with history of illegal dumping. Storm drain inlets that are located in areas where the maximum number of citizens are exposed (this may include areas of high foot traffic).

Receiving Water – Surface water that receives regulated and unregulated discharges from activities on land.

Riparian Areas – Plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent water bodies. Riparian areas have one or both of the following characteristics: 1) distinctively different vegetative species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland.

Separate Implementing Entity (SIE) – An entity that a permittee may utilize to satisfy one or more of the permit obligations. SIE may include a flood control agency, a Phase I permittee, a storm water consulting firm, etc.

Small MS4 – An MS4 that is not permitted under the municipal Phase I regulations, and which is “owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity...” (40 CFR §122.26(b)(16)).

Solid Waste - All putrescible and non-putrescible solid, semisolid, and liquid wastes as defined by California Government Code Section 68055.1(h).

Storm Drain System - The basic infrastructure in a municipal separate storm sewer system that collects and conveys storm water runoff to a treatment facility or receiving water body.

Storm Water – Storm water is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As storm water flows over the land or impervious surfaces, it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality if the storm water is discharged untreated.

Storm Water Treatment System - Any engineered system designed to remove pollutants from storm water runoff by settling, filtration, biological degradation, plant uptake, media absorption/adsorption or other physical, biological, or chemical process. This includes landscape-based systems such as grassy swales and bioretention units as well as proprietary systems.

Structural Controls - Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Surface Drainage - Any above-ground runoff (sheet, shallow concentrated, and open channel) that flows into the storm drain system.

Targeted Audience - Group(s) of people the Permittee has targeted to receive educational message.

Total Maximum Daily Loads (TMDLs) - The maximum amount of a pollutant that can be discharged into a waterbody from all sources (point and nonpoint) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all waterbodies that do not meet water quality standards even after application of technology-based controls, more stringent effluent limitations required by a state or local authority, and other pollution control requirements such as BMPs.

Trash and Debris - Trash consists of litter and particles of litter. California Government Code Section 68055.1 (g) defines litter as all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

Treatment - Any method, technique, or process designed to remove pollutants and/or solids from polluted storm water runoff, wastewater, or effluent.

Water Efficient Landscape Ordinance - The Model Water Efficient Landscape Ordinance (Title 23, Division 2, Chapter 2.7 of the California Code of Regulations) took effect January 1 2010 and is designed to: (1) promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible; (2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects; (3) establish provisions for water management practices and water waste prevention for existing landscapes; (4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; (5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies; (6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and (7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

Water Quality Objectives - The limits or levels of water quality elements or biological characteristics established to reasonably protect the beneficial uses of water or to prevent pollution problems within a specific area. Water quality objectives may be numeric or narrative.

Water Quality Standards - State-adopted and U.S. EPA-approved water quality standards for waterbodies. The standards prescribe the use of the waterbody and establish the water quality criteria that must be met to protect designated uses. Water quality standards also include the federal and state anti-degradation policy.

APPENDIX 2 - ACRONYMS

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Acronyms of the Education & Outreach Plan

| | |
|----------------|--|
| ASBS | Area of Special Biological Significance |
| BMP | Best Management Practice |
| CASQA | California Storm Water Quality Association (www.CASQA.org) |
| CGP | Construction General Permit |
| CWA | Clean Water Act |
| E&O | Education & Outreach |
| GIS | Geographical Information System |
| IGP | Industrial General Permit |
| IRWMP | Integrated Regional Water Management Plan |
| MS4 | Municipal Separate Storm Sewer System |
| NPDES | National Pollutant Discharge Elimination System |
| SMARTS | Storm Water Multi-Application, Reporting, and Tracking System (https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp) |
| SWMP | Storm Water Management Plan |
| SWPPP | Storm Water Pollution Prevention Plan |
| TMDL | Total Maximum Daily Load |
| USEPA | United States Environmental Protection Agency |

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APPENDIX 3 – SECTIONS E.7 & E.8 OF THE PHASE II MS4 PERMIT

E.7. EDUCATION AND OUTREACH PROGRAM

Traditional Small MS4 Permittees may be required to implement Community-Based Social Marketing (CBSM) requirements as detailed in Attachment E upon determination by a Regional Board Executive Officer. The Regional Board Executive Officer shall notify Permittees within three months of the permit adoption date of their determination to require CBSM.⁵ The notification shall include a statement of reasons why the Executive Officer finds that implementation of CBSM is appropriate. If the Permittee disagrees with the Executive Officer determination, the Permittee may bring the dispute to the State Water Board Executive Director or his designee as specified under the Dispute Resolution provision of this Order.

E.7.a. Public Education and Outreach

Within the first year of the effective date of the permit, all Permittees shall comply with the requirements in this Section by selecting one or more of the following Public Education and Outreach options:

1. Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts outreach and education on behalf of its members; or
2. Contributing to a regional outreach and education collaborative effort (a regional outreach and education collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional outreach and education. Regional outreach and education collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes, then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); or
3. Fulfilling outreach and education requirements within their jurisdictional boundaries on their own; or
4. A combination of the previous options, so that all requirements are fulfilled.

Reporting – By the first year Annual Report, the Permittee shall submit information indicating which Public Education and Outreach option(s) it will use to comply with this Section. For each option involving a contribution to a countywide storm water program or regional outreach and education collaborative effort, the Permittee shall complete and have available in the first year Annual Report documentation, such as a written agreement, letter or similar document, which confirms the collaboration with other MS4s.

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop and implement a comprehensive storm water public education and outreach program. The public education and outreach program shall be designed to reduce pollutant discharges in storm water runoff and non-storm water discharges to the MS4 through increased storm water knowledge and awareness in target communities. The Public Education and Outreach Program shall be designed to measurably increase the knowledge and awareness of targeted audience regarding the municipal storm drain system, impacts of urban runoff and non-storm water discharges on receiving waters, and potential BMP solutions for the target audiences, thereby reducing pollutant releases to the MS4 and the environment.

- (ii) **Implementation Level** –The Permittee shall, at a minimum:

⁵ Getting in Step, A Guide to, Conducting Watershed Outreach Campaigns, 3 Edition, November 2010, EPA 841-B-10-002, USEPA, Office of Water.

- a. Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.
- b. Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.
- c. Develop and convey a specific storm water message that focuses on the following:
 1. Local pollutants of concern
 2. Target audience
 3. Regional water quality issues
- d. Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);
- e. Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program;
- f. Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy;
- g. Convey messages to explain the benefits of water-efficient and storm waterfriendly landscaping⁶, using existing information if available;
- h. Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, nonemergency phone number with voicemail, which is checked daily;
- i. Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers;
- j. Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school –age children about storm water runoff and how they can help protect water quality habitat in their local watershed (s). The Permittee is encouraged to use environmental and placebased, experiential learning materials that are integrated into school curricula and school facility management⁷. In the case that an environmental and placebased, experiential learning local program does not exist, the Permittee may use California's Education and Environment Initiative Curriculum⁸ or equivalent.
- k. Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.

⁶ For example, Surfrider's Ocean Friendly Garden Program (<http://www.surfrider.org/programs/entry/ocean-friendly-gardens>) and the Water Efficient Landscape Ordinance (WELO)

⁷ For example, Splash (www.sacsplash.org/), Effie Yeaw Nature Center (www.sacnature.net) or Yolo Basin (www.yolobasin.org)

⁸ <http://www.californiaeci.org/>

- l. Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction. The Permittee may use the Sacramento Stormwater Quality Partnership's River Friendly Carwash Program⁹, or equivalent, for guidance.
 - m. Develop and convey messages specific to mobile cleaning and pressure wash businesses.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b. Staff and Site Operator Training and Education

E.7.b.1. Illicit Discharge Detection and Elimination Training

- (i) **Task Description** – Within the third year of the effective date of the permit, the Permittee shall develop and implement a training program for all Permittee staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection to the storm drain system.
- (ii) **Implementation Level** – The training program shall include at a minimum:
 - a. Identification of an illicit discharge or illegal connection.
 - b. Proper procedures for reporting and responding to the illicit discharge or illegal connection.
 - c. Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing.
 - d. An annual assessment of their trained staff's knowledge of illicit discharge response and refresher training as needed.
 - e. Training for new staff who, as part of their normal job responsibilities may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection shall be trained no later than six months after the start of employment.
 - f. Contact information, including the procedure for reporting an illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.
 - g. Focused education on identified illicit discharges and associated illicit discharge locations.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b.2. Construction Outreach and Education

(a) Permittee Staff Training

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall ensure that all staff implementing the construction site storm water runoff control program are adequately trained.

⁹ <http://www.beriverfriendly.net/riverfriendlycarwashing/>

(ii) **Implementation Level** – The Permittee may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:

- a. Plan Reviewers and Permitting Staff - The Permittee shall ensure plan reviewers and permitting staff are qualified individuals, knowledgeable in the technical review of local erosion and sediment control plans, (including proper control measure selection, installation, implementation, and maintenance, as well as administrative requirements such as inspection reporting/tracking and the use of the Permittee's enforcement responses), and are certified pursuant to a State Water Board sponsored program as a Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD), or a designated person on staff possesses the QSD credential.
- b. Erosion Sediment Control/Storm Water Inspectors - The Permittee shall ensure inspectors are qualified individuals, knowledgeable in inspection procedures, and are certified pursuant to a State Water Board sponsored program as either (1) a Qualified SWPPP Developer (QSD); (2) a Qualified SWPPP Practitioner (QSP); or (3) a designated person on staff possesses each credential (QSD to supervise plan review, QSP to supervise inspection operations).
- c. Third-Party Plan Reviewers, Permitting Staff, and Inspectors - If the Permittee utilizes outside parties to review plans and/or conduct inspections, the Permittee shall ensure these staff are trained.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

(b) **Construction Site Operator Education**

(i) **Task Description** – Within the third year of the effective date of the permit, the Permittee shall develop and distribute educational materials to construction site operators.

(ii) **Implementation Level** – The Permittee shall do the following:

- a. Each year, provide information on training opportunities for construction operators on BMP selection, installation, implementation, and maintenance as well as overall program compliance.
- b. Develop or utilize existing outreach tools (i.e. brochures, posters, etc.) aimed at educating construction operators on appropriate selection, installation, implementation, and maintenance of storm water BMPs, as well as overall program compliance.
- c. Distribute appropriate outreach materials to all construction operators who will be disturbing land within the MS4 boundary. The Permittee's contact information and website shall be included in these materials.
- d. Update the existing storm water website, as necessary, to include information on appropriate selection, installation, implementation, and maintenance of BMPs.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element . The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b.3. Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations.

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop a biennial employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices as specified in Section E.11. Pollution Prevention/Good Housekeeping for Permittee Operations of this Order. The Permittee shall determine the need for interim training during alternate years when training is not conducted, through an evaluation of employee Pollution Prevention/Good Housekeeping knowledge. All new hires whose jobs include implementation of pollution prevention and good housekeeping practices must receive this training within the first year of their hire date.
- (ii) **Implementation Level** – The training program shall include the following:
 - a. Biennial training for all employees implementing this program element. This biennial training shall include a general storm water education component, any new technologies, operations, or responsibilities that arise during the year, and the permit requirements that apply to the staff being trained. Employees shall receive clear guidance on appropriate storm water BMPs to use at municipal facilities and during typical O&M activities.
 - b. A biennial assessment of trained staff's knowledge of pollution prevention and good housekeeping and shall revise the training as needed.
 - c. A requirement that any contractors hired by the Permittee to perform O&M activities shall be contractually required to comply with all of the storm water BMPs, good housekeeping practices, and standard operating procedures described above.
 - d. The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate BMPs, good housekeeping practices and following standard operating procedures.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a. for compliance directions.

E.8. PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

- (i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall involve the public in the development and implementation of activities related to the program. The public participation and involvement program shall encourage volunteerism, public comment and input on policy, and activism in the community. The Permittee shall also be involved in their Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort, if applicable.
- (ii) **Implementation Level** – At a minimum, the Permittee shall:
 - a. Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.
 - b. Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or

affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.

- c. Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).
 - d. Ensure the public can easily find information about the Permittee's storm water program.
 - e. Actively engage in the Permittee's IRWMP or other watershed-level planning effort.
- (iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and longterm effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

APPENDIX 4 – SURVEY TOOLS & REFERENCES

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SURVEYS

To comply with permit section E.7.a.(ii)(b), the municipality must perform two surveys during the permit term. As discussed in [Section 2.3](#) of this plan the purpose of the surveys is to establish a baseline of awareness of the targeted audiences with the first survey. The second survey should be performed at the end of the permit term and measure the growth in awareness of the same audiences.

SURVEY DELIVERY

The City of Chico will utilize community-based events to conduct the required surveys. The City of Chico anticipates performing the surveys at the Silver Dollar Fair or at the Farmer's Market(s). The City of Chico will target event attendees and attempt to persuade them to take the survey. The City may elect to utilize incentives to lure potential survey targets. These incentives can be in the form of a giveaway or a drawing for a grand prize. Pet waste bags, storm water awareness coloring books, themed magnets, and pencils/pens are examples of outreach message oriented giveaways. Survey questions can be presented by paper, electronic device (i.e. tablet or laptop), verbally, or a combination approach.

ANALYZING THE DATA

Now that the City has collected survey data, it will be compiled, tallied, and analyzed. Data will be entered into a database program (i.e. Microsoft Excel or Access) to manage, filter, and sort the results. The most basic level of analysis is tallying the results. Tallying the results will give the City a quick basic understanding of the awareness of the surveyed population. For example, if 75% of those surveyed answered it was most appropriate to call 911 if they noticed someone dumping something in the storm drain, and only 5% surveyed *correctly* answered the municipality's storm water hotline, the analysis would tell the municipality that awareness campaigns for the local storm water hotline would be warranted.

To dig deeper in the analysis of the responses, filters can be applied based on available information collected about the survey taker (i.e. age, gender, local resident, education, and median income). Targeted groupings and messages can be developed through further filtering of the results. If filters for age, gender, and income levels were applied to the above scenario, the municipality could understand which answers trended from various groups; and, thereby, adjust the outreach focus to the group with the lower percentage level of understanding about the topic.

POOL OF SURVEY QUESTIONS

The following pool of survey questions has been compiled to focus data collection and gauging of awareness for pollutants of concern and local water quality issues. MS4 surveys can be populated by using the questions below and/or by creating and adding other focused questions. Ideally, approximately 7 to no more than 15 questions will be selected for the survey.

[Left intentionally blank.]

Pool of Survey Questions

Where applicable, the correct answer is shown in *bold, italicized font*.

| Survey Topic | Question | Possible Answers: | A | B | C | D |
|--------------------------------|---|-------------------|---|--|---|---|
| Respondent Background | Select Age Group | | Under 18 | 18-29 | 30-55 | 55+ |
| Respondent Background | Select Highest Completed Education Level | | High School / GED | Some College | College Degree | Less than High School Graduate |
| Respondent Background | Select residence location | | City/County of ____ | Unincorporated County | Outside City / County | |
| Respondent Background | Select Primary / Preferred Language | | English | Spanish | Hmong | Other (Specify): _____ |
| Respondent Background | Select Gender | | Male | Female | | |
| Respondent Background | Select Household Income | | Less than \$25,000 | \$25,000 to \$49,999 | \$50,000 to \$99,999 | \$100,000 or more |
| Respondent Background | Check all that apply | | I live in the City/County of ____ | I work in the City/County of ____ | I attend school in the City/County of ____ | I participate in recreation activities in the City/County of ____ |
| TMDL (Diazinon & Chlorpyrifos) | When is the best time to apply pesticides or herbicides? | | Right before a rain storm | Weekly | <i>Only when needed and on dry days</i> | In the middle of the night |
| TMDL (Diazinon & Chlorpyrifos) | What is the best way to get rid of ants? | | Buy as much ant spray as possible and use liberally | Pour diesel or gasoline on the anthill | <i>Spot where the ants are coming from, eliminate the food source, rinse ants away with soap and water, obstruct entrances, and use self-contained bait traps.</i> | Ignore them, they will go away eventually |
| TMDL (Diazinon & Chlorpyrifos) | At your residence, do you or a gardening service apply any of the following lawn or garden products? (Check all that apply) | | Fertilizer | Weed killers/herbicides | Pesticides | Other |

| Survey Topic | Question | Possible Answers: | | | |
|--------------------------------|---|--|---|--|--|
| | | A | B | C | D |
| TMDL (Diazinon & Chlorpyrifos) | What do you do with unused or unwanted pesticides and herbicides? | Apply the contents to your yard or garden until supply is depleted | Take it to a landfill or waste transfer station | Pour it into the street gutter or down a storm drain | <i>Recycle at available drop-off sites</i> |
| TMDL (Diazinon & Chlorpyrifos) | In the past 12 months, I may have applied a bigger dose of insecticide or weed killer around my house than the directions say to use. | TRUE | FALSE | I don't know. | |
| Mercury | Which of the following common household items commonly contain mercury? | Florescent lights | LCD screens | Thermometers and barometers | <i>All of the above</i> |
| Mercury | What is the best way to dispose of Mercury containing materials? | <i>Reputable E-Waste drop off locations or hazardous waste collection centers</i> | Throw it in the household garbage | Dump it in an empty field | Return it to the manufacturer |
| Mercury | How can Mercury be harmful to the environment? | It will raise and lower water temperatures | <i>It will remain in tissue of aquatic species and those species that consume them</i> | It will instantly kill waterfowl on contact | The illegally dumped light bulbs clog waterways and promote bacteria growth |
| Pathogens | Where and how do you dispose of pet waste? | Bag/garbage | Compost it or place it in a yard waste can | Leave it | I do not own a pet |
| Pathogens | What is the best way to dispose of cooking oils and grease? | Pour it down the sink | <i>Pour in a container and place it in the household garbage can</i> | Dump into the nearest storm drain | Take it to a reputable recycling center (i.e. County Household Hazardous Waste Facilities) |

| Survey Topic | Question | Possible Answers: | A | B | C | D |
|-------------------|--|-------------------|--|--|---|---|
| Pathogens | How is pet waste harmful to the environment? | | Someone may step on it | <i>Pet waste carries bacteria, viruses, and parasites that can make people, especially children, sick when carried by storm water into local waterways</i> | It creates emissions which effect air quality | It plugs storm drain inlets leading to localized flooding |
| Pathogens | What is a Sanitary Sewer Overflow? | | Storm water overwhelms the storm drains and backs up into streets and roadways | Spilling oils and greases onto surfaces when dumping into the municipality's sewer system. | <i>Unintentional discharge of raw sewage from municipal sanitary sewers</i> | When a sink back up due to a clog |
| Pathogens | Which of the following should not be sent down a sanitary sewer drain? | | Used water | Human body waste | Toilet paper | <i>Cooking oils, fats, and greases</i> |
| Illicit Discharge | Can you drain water from your pool into a storm drain? | | <i>Yes, after no residual chlorine is detected</i> | Yes, at any time | Yes, but only when it is raining | No, Never |
| Illicit Discharge | Wash water from mop buckets or carpet cleaners can be disposed of best by... | | Pouring the wash water out on the street. | Throwing it over your fence onto your neighbor's yard. | <i>Pouring down a sink or toilet.</i> | Pouring it down a storm drain. |
| Illicit Discharge | Where is the best place for water-based paint brushes to be washed? | | <i>At an inside sink.</i> | Down your driveway. | In the local river. | On the front lawn. |
| Illicit Discharge | Typically what is the only thing allowed to go down a storm drain? | | Wastewater | Pool water as long as it has chlorine | Surface wash down water | <i>Storm Water</i> |

| Survey Topic | Question | Possible Answers: | | | |
|-------------------|--|---|--|---|---|
| | | A | B | C | D |
| Illicit Discharge | Urban storm water runoff flows to which of the following? | A storm water treatment facility. | Into the sanitary sewer system. | <i>Into the municipal storm drainage system which discharges to local water bodies or irrigation districts.</i> | Nowhere, it evaporates |
| Illicit Discharge | Do you do any of your own vehicle repairs at your residence? | I do not own a vehicle. | Yes | No | |
| Illicit Discharge | Where do you primarily wash your vehicles? | A commercial car wash | In your driveway or the street | At a charity car wash | On your lawn |
| Illicit Discharge | How do you dispose of materials such as used motor oil, old paint thinners, or similar items? | Place it in household garbage. | Take it to a landfill. | Pour it into the street gutter or down a storm drain. | <i>Recycle at the County Household Hazardous Waste or other approved drop-off sites.</i> |
| Illicit Discharge | Stains from vehicle fluids can be cleaned by... | Hosing down the surface until the stain is no longer present. | Scrubbing with an environmentally friendly soap prior to washing down the surface. | <i>Using a dry absorbent like kitty litter to absorb the fluid then properly disposing of the spent absorbent.</i> | Wait for the next rain to naturally wash the stain off the surface. |
| Illicit Discharge | If you notice someone dumping something into the storm drain or obvious pollutants entering the storm drain, what should you do? | Mind your own business | <i>Call your city's or county's storm water hotline or call 911</i> | Wash it down the drain with lots of water | Don't worry ... it will be removed from the water by the City's/County's treatment system. |
| Illicit Discharge | Have you heard of any of the following programs or activities? (Check all that apply) | Coastal Clean-up Day | County Household Hazardous Waste Collection Center | Municipal Specific Program / Outreach Event #1 | Municipal Specific Program / Outreach Event #2 |
| Illicit Discharge | Have you participated in a clean-up event in the City of Chico? | Yes/In the last 12 months | Yes/In the past | No/Never | No/But I would like to get involved |

| Survey Topic | Question | Possible Answers: | | | |
|--------------|---|----------------------------|---|--|---|
| | | A | B | C | D |
| Trash | It is okay to toss cigarette butts on the ground because they are biodegradable. | TRUE | <i>FALSE</i> | | |
| Trash | Trash is separated from storm water runoff before it reaches the local waterways. | TRUE | <i>FALSE</i> | | |
| Trash | Trash cans and bins should be... | Kept open for easy access. | <i>Kept in the closed position to ensure trash is not carried off by the wind and that storm water stays out of it.</i> | Washed out frequently. | Turned upside down to dry out after a storm. |
| Trash | Where should unwanted household items and trash be taken? | To an open field. | To a private business' dumpster. | <i>To an e-waste recycler, municipal dump or other recycling center.</i> | Left curbside for the trash service to pick up. |

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APPENDIX 5 – INVENTORY OF EXISTING RESOURCES

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EXISTING ESTABLISHED PROGRAMS AND RELATIONSHIPS

Pesticides:

- County Agriculture Commissioner's Office - Proper disposal messages and options and illegal dumping awareness messages.

Merced County Municipalities:

<http://www.co.merced.ca.us/index.aspx?nid=58>

San Joaquin County Municipalities:

<http://www.sjgov.org/agcomm/>

Shasta County Municipalities:

http://www.co.shasta.ca.us/index/ag_index.aspx

Stanislaus County Municipalities:

<http://www.stanag.org/>

Yolo County Municipalities:

<http://www.yolocounty.org/general-government/general-government-departments/agriculture-cooperative-extension/agriculture-and-weights-measures>

Yuba County Municipalities:

<http://www.co.yuba.ca.us/departments/ag/>

- UC Master Gardener Programs (By County) - Messages and information for pesticide application methods, protocols, and tips.

http://mg.ucanr.edu/Become_a_Master_Gardener/California_Master_Garden_Counties/

- Got Ants? Get S.E.R.I.O.U.S.! - Got Ants is a collaboration of public agencies, educational institutions, pest professionals, and nonprofits working to promote environmentally sound ant management and to protect water quality. The Got Ants? website provides excellent tips, and ideas for switching from spraying pesticides to less toxic and more effective means for managing ant problems.

<http://www.gotantsgetserious.org/>

- Our Water – Our World – A website designed to help consumers with home and garden pest by providing product information and guidance for non-toxic alternatives.

<http://ourwaterourworld.org/>

- Safe Lawns – Information, links, tips, and articles for pesticide alternatives for lawn care and grounds maintenance.

<http://www.safelawns.org/blog/>



Mercury:

- California Department of Toxic Substances Control – Electronic Hazardous Waste (E-Waste)
<https://www.dtsc.ca.gov/HazardousWaste/EWaste/>
- California Product Stewardship Council – Information, links, and resources for mercury thermostat recycling.
<http://calpsc.org/products/thermostats/>
- Be Mercury Free (Sacramento Regional County Sanitation District) – Information, links and resources for safely disposing of mercury and preventing mercury contamination.
<http://www.regionalsan.com/be-mercury-free>

Illicit Discharges:

- Association of California Water Agencies’ Save Our Water program – Information, links, and resources related to water conservation.
<http://www.saveourh2o.org/>

Trash:

- CalRecycle - Information, links, resources to reduce, reuse, and recycle.
<http://www.calrecycle.ca.gov/Recycle/>
- Keep America Beautiful – Activism, information, links, and resources to transform public spaces into beautiful places.
<http://www.kab.org>
- Bag It (Documentary Film) – Activism, school projects, information, links, and resources to reduce plastics from the environment.
<http://www.bagitmovie.com/index.html>
- Waste Management – Recycling information, K-12 education, information, links, and resources about waste management for home, industry, construction, and business.
<http://www.wm.com/thinkgreen/index.jsp>
- USEPA – Tools and resources for waste management, waste reduction, and recycling.
http://epa.gov/epawaste/climate/cc_wste_resrcs.htm
- Institute for Local Government (ILG) – Sample ordinances, flyers, and many other resources for waste management, waste reduction, and recycling.

<http://www.ca-ilg.org/commercial-recycling-resource-center>

- Earth 911 – The website provides a search feature that informs the searcher how to properly dispose of various types of materials (i.e. automotive fluids, batteries, electronics, and household items).
<http://search.earth911.com/>
- County Household Hazardous Waste Facilities (HHW) – Most counties have a HHW facility where the public can drop off household and in some cases small business hazardous materials. These County HHW facilities have promotional and educational materials for proper disposal of items such as E-Waste, oils, pesticides, and chemicals.
<http://www.mercedrecycles.com/hhw.html>
<http://www.sjgov.org/solidwaste/HHW%20facility%20home.htm>
<http://www.stancounty.com/ER/household-hazardous-waste.shtm>
<http://www.yolocounty.org/home/showdocument?id=2767>
<http://www.yubasutterrecycles.com/hhw.html>

Water Conservation/Drought:

- DWR - Information, links, and educational material regarding California's drought
<http://www.water.ca.gov/waterconditions/publications.cfm>
- Save Our Water - Information, links, tips, and resources on how to save water.
<http://saveourwater.com/>
- California Urban Water Conservation Council (CUWCC) - Activism, BMP cut sheets, and educational resources on how to save water.
<http://www.cuwcc.org/>
- Be Water Wise - Information, links, tips, and educational resources on how to save water.
<http://www.bewaterwise.com/>

Environmental Education:

- North American Association for Environmental Education/ PBS Broadcasting – Links to many educational resources and tools for environmental topics.
<http://www.naaee.net/publications>

- Project WET – WET stands for Water Education for Teachers. The Project WET’s website provides curriculum, material, and resources for classroom water education.
<http://www.projectwet.org/>
- Project Learning Tree (PLT) – PLT is an environmental education program designed for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. PLT provides curriculum materials and professional development for educators.
<https://www.plt.org/>
- Education and the Environment Initiative (EEI) - EEI is a free, state-sponsored K-12 curriculum that teaches science and history-social science standards through an environmental lens. The EEI consists of state-adopted and approved units that allow educators to substitute chapters for portions of textbooks they are currently using.
<http://californiaeei.org/>
- Green Schools Initiative – This program is designed to be adopted by schools and emphasizes eliminating toxics, using resources sustainably, creating green schoolyards and buildings, serving healthy food, and teaching environmental literacy and stewardship. The website provides resources for activism, green resources, and educational resources.
<http://www.greenschools.net/>

EXISTING LOCAL ENVIRONMENTAL GROUPS

- Butte Environmental Council
<http://www.becnet.org/>
- The Stream Team
<http://www.thestreamteam.org/>
- Kids and Creeks
<http://www.kidsandcreeks.org/index.htm>
- Friends of Bidwell Park:
<http://www.friendsofbidwellpark.org/>
- Chico Creek Nature Center:
<http://bidwellpark.org/nature-center-home/>

INVENTORY OF EXISTING E&O MATERIALS AND RESOURCES

Internal Resources

The City of Chico is a renewal Permittee, which means the City has a high level of public storm water education and outreach in the last permit. The following table is an inventory of what existing materials or resources are available.

| Targeted Pollutant of Concern | Messages | Inventory of Existing Materials |
|-------------------------------|---|---|
| Pesticides | <ul style="list-style-type: none"> • Proper application of pesticides, herbicides and fertilizers. • Less toxic alternatives (IPM) • Proper storage and disposal | <i>Our Water Our World brochures</i> <i>Keepchicoclean.org website – information</i> <i>Outreach – Silver Dollar Fair</i> <i>Keep Chico Clean Calendars – Distribute 3,000/year</i> |
| Mercury | <ul style="list-style-type: none"> • E Waste Recycling • Replacing Mercury Devices • Less Toxic Alternatives • Safe consumption guidelines for fish | <i>E Waste Recycling locations linked on City's website and Sustainability website</i> |
| Pathogens | <ul style="list-style-type: none"> • Pet waste | <i>Keepchicoclean.org website – information</i> <i>Outreach – Silver Dollar Fair</i> |
| Illicit Discharges | <ul style="list-style-type: none"> • Only Rain Down the Drain • Illegal Dumping • Waste Recycling | <i>Media Blitz – newspaper ads, Cal Water utility insert, television ads, radio ads, outreach at Silver Dollar Fair</i> <i>Keepchicoclean.org – Car Wash Kit information, Car Wash Commercials, Brochures, Posters</i> <i>Car Wash Kits – Available for loan</i> <i>Keep Chico Clean Calendars – Distribute 3,000/year</i> |
| Trash | <ul style="list-style-type: none"> • Illegal Dumping • Recycling • Waste Management | <i>City's sustainability website – recycling efforts</i> <i>Trash haulers within the City provide free weekly recycling per City franchise agreement</i> <i>Waste Management also provides periodic free load disposal at the Neal Road Waste Facility</i> <i>Keep Chico Clean Calendars – Distribute 3,000/year</i> |

Outside Resources

There are excellent sources of information, training, and resources available through these types of groups.

California Stormwater Quality Association (CASQA):

CASQA is a professional member association dedicated to the advancement of storm water quality management through collaboration, education, implementation guidance, regulatory review, and scientific assessment. CASQA offers members access to excellent resources such as BMP handbooks and guidance documents. These resources are widely recognized as industry standards. <https://www.casqa.org/>



Local Storm Water Partnership Groups:

Many municipalities already participate in a local partnership group with other Phase 1 and 2 MS4s. These groups often promote, sponsor, or organize collaborative E&O activities and public participation events. Local groups include the following:

- San Joaquin Valley Stormwater Quality Partnership (<http://sanjoaquinvalleystormwaterqualitypartnership.com/>);
- The Merced MS4 Partnership;
- The Yolo MS4 Partnership; and
- The Sacramento Stormwater Quality Partnership (www.beriverfriendly.net)

Storm Water Awareness Week (SWAW):

The key component of the high-quality education event, *Storm Water Awareness Week*, is it is *free*. SWAW strictly prohibits any money changing hands during this event. There is no cost to attend any of the workshops, and there is no charge for presenters to host their workshops. SWAW provides many handouts and publicity materials for free. <http://stormwaterawareness.org/>



School Resources

The permit requires that the City of Chico provide independent, parochial, and public schools in the City limits with materials to effectively educate school-age children about storm water runoff and how they can help protect water quality habitat in their local watershed. The City of Chico has collaborated with a local environmental education group, Kids and Creeks, for a number of years. Kids and Creeks provides hands-on experience through field trips to local parks and nature reserves in order to connect the children to their local environment, instill a sense of stewardship, and to teach about the local watershed.

Chico Unified School District sends their 5th grade students to Shady Creek Outdoor School. This school provides a residential environmental science camp for 4-5 day programs. The school curriculum includes creek ecology, earth processes, nature investigation and exploration, as well as other hands on classes.

Chico Unified School District has secured a Drought Response Outreach Program for Schools (DROPS) grant to implement a Low Impact Development Implementation and Stormwater Education Program. As a part of this grant, Chico Unified School District in collaboration with The Stream Team Clean Water Science Ambassador Program will integrate stormwater education into six elementary schools, two junior high schools, and two high school campuses.

INVENTORY OF EXISTING E&O AND PUBLIC PARTICIPATION EVENTS

Most municipalities host and participate in several public events each year. These municipal-sponsored community events (i.e. farmers markets, county fairs, street fairs, cleanup events, holiday-oriented community events, and town festivities) serve as great opportunities to interface with the public and can be leveraged for storm water education and outreach purposes. Some events (i.e. Coastal Cleanup Day, Earth Day, etc.) serve as great catalyst for targeted awareness campaigns or solicitation of public participation. By creating an inventory of these community events it will help identify opportunities that the municipality will have to interact with the public.



| Inventory of Municipal-Sponsored Community Events |
|--|
| Comanche Creek Greenway Volunteer Sessions (2x/month) |
| Silver Dollar Fair – Stormwater Outreach and Education Booth |
| Picnic in the Plaza (Every Tuesday) |
| Make a Difference Day – Clean-up of Bidwell Park |
| Bidwell Park and Chico Creeks Clean-Up Day |

INVENTORY OF EXISTING PUBLIC OUTREACH MECHANISMS

How does the City of Chico communicate with the public? The City of Chico utilizes these communication methods:

- Municipal storm water website
- Utility mailers
- Newsletters
- Social media
- Privately owned billboards, kiosks, and electronic signage
- Multimedia (radio, cable TV, print / newspaper)
- Hotlines and reporting methods
- Exhibits at fairs or festivals
- Permit applications and renewals



| Existing Outreach Mechanisms | Description, Capabilities and Message Targets |
|---|--|
| Keepchicoclean.org | The website provides outreach information regarding preventing runoff, business partners, media, brochures, posters, and MS4 information. The website is a resource for the entire community of Chico. |
| Cal Water Bill Insert | A bill insert that provides messages about “only rain down the storm drain” and lists the Clean Water Business Partners for the year. The intended audience is the entire community of Chico. |
| Bidwell Park Pulse – Quarterly Newsletter | Reports on Bidwell Park clean-ups, volunteer groups, and park user information. The Newsletter can help further get volunteers involved in clean-ups and provide messages to park users in regards to clean-ups, reminders regarding pet waste, and how to report illicit discharges. The intended audience is Bidwell Park users. |
| Privately owned billboards, kiosks, and electronic signage | Privately owned billboard advertisements. Available when the City has the funding. The intended audience is car owners. Primarily ads geared toward recycling oil and proper car washing. |
| Multimedia (radio, cable TV, print / newspaper) | During City’s storm water media blitz, the City uses radio advertisements, TV advertisements, and newspaper advertisements to get storm water messages to the general public. |
| Hotlines and reporting methods | The City funds a hotline through the Butte Environmental Council (BEC). The hotline directs callers to the appropriate reporting agency and BEC will respond to messages left on the hotline. |
| Exhibits at fairs or festivals | Storm Water Program exhibit at the Silver Dollar Fair (5 days). The exhibit provides handouts about pesticides, illicit discharges, and pathogens as well as City staff being available for questions. The City uses this event to survey the public about the program. The intended audience is the general public. |

PUBLIC INVOLVEMENT AND PARTICIPATION OPPORTUNITIES AND METHODS

The permit requires that the City develop opportunities for public involvement in the storm water program. The opportunities should encourage volunteerism, public comment and input of policy, and activism in the community. The table below lists the existing public participation opportunities.

| Existing Public Participation Opportunities | Description of Opportunities |
|---|--|
| Public BMP Implementation | The City of Chico will be implementing four demonstrative LID projects on City property. The City will be providing volunteer training on LID maintenance and restoration techniques, training for businesses and residents about LID practices, and tours of one of the projects during the weekly Farmer’s Market. |
| Public Access to Storm Water Program Information | The City of Chico has a website keepchicoclean.org solely dedicated to storm water information and news. A section of the homepage is dedicated to soliciting comments and input on the Storm Water Program. |

| | |
|--|--|
| | |
| <p>Other Public Participation / Volunteer Opportunities</p> | <p>Comanche Creek Greenway Cleanup Volunteer Session – volunteers clean up the Comanche creek greenway. This cleanup is done two days a month.</p> <p>Make a Difference Day in Bidwell Park – Citizen volunteers clean-up Bidwell Park.</p> <p>Bidwell Park and Chico Creeks Clean-Up – Citizen volunteers clean-up Bidwell park and Chico creeks. Clean-up is done once a year.</p> <p>Storm drain marking events and Stream Team Clean Water Science Ambassador Work Sessions.</p> |

COLLABORATION AND RESOURCE SHARING

Storm Water Partnerships

Collaboration and resource sharing can be a terrific way to avoid the burden of sole source development time and costs. By collaborating with similar municipalities, costs can be greatly reduced for material development. Resources can potentially be created and dispatched with more efficiency and potentially more effectiveness. The following are some ways to consider collaboration and resource sharing for your municipality's storm water program:

Joint Campaigns: Most regional phase II municipalities share the same education and outreach requirements. So with each municipality working towards crafting messages and awareness campaigns, it may make sense to pool resources and in a regional effort. Radio/TV/Print ads, billboards, fair or festival booths, specific issue related awareness campaign websites or social media pages can be expensive propositions to develop and maintain. However, if municipalities teamed up on these types of items the cost for development and maintenance significantly decreases.

Barter: As the saying goes, "many hands make light work". The same concept is true if the municipalities organized efforts with outreach materials. If you look at the list of topics for public outreach, you would see the need for dozens of educational and awareness-raising outreach messages and materials. With some coordination, the topics could be divided up among participating municipalities for material development. The municipalities would then perform an exchange of the developed resources exponentially increasing their catalog of outreach materials. Editable versions of the developed materials would be best, so that each municipality could customize their own version.

Partnership Groups: Storm water partnership groups are great springboards for collaboration. By participating with a storm water partnership group with other municipality's joint campaigns, materials bartering, idea and resource sharing have a place to happen.

Integrated Regional Water Management Plans & Other Watershed-level Planning Efforts

The Phase II MS4 Permit requires in Section E.8 that municipalities actively engage in the local Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort. The City of Chico participates in the Northern Sacramento Valley IRWMP <http://nsvwaterplan.org/>.

APPENDIX 6 – THE E&O ACTION PLAN

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City of Chico E&O Action Plan

Education & Outreach Tasks:

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|--|--|--|---|
| <p>Task 1 - <i>Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.</i></p> | <p>The City of Chico’s Comprehensive E&O Plan meets the requirements of Task 1 in that it identifies in Section 2 the water quality problems and target audiences. The Plan identifies in Sections 2.4 and 4.4 how the City of Chico will measure and evaluate the effectiveness of its E&O program and the strategy used to prioritize water quality issues. In this E&O Action Plan, the person responsible for implementing each task is identified and an implementation schedule is provided.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Year 2</p> |
| <p>Task 2 - <i>Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.</i></p> | <p>The City of Chico will continue to implement surveys on an annual basis at the Silver Dollar Fair or at Farmers Market(s). These surveys are done over the course of the five day fair in person. The surveys will be given to anyone at the fair. Zip codes will be used to filter survey information.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Year 1 – 5 Year 6 (continuing)</p> |
| <p>Task 3 - <i>Develop and convey a specific storm water message that focuses on the following:</i></p> <ol style="list-style-type: none"> 1) <i>Local pollutants of concern</i> 2) <i>Target audience</i> 3) <i>Regional water quality issues</i> | <p>In Section 2 of the Comprehensive E&O Plan, the City of Chico walks through the process of identifying these three items and the related messages. These messages are summarized and prioritized in Table 9 of the E&O Plan.</p> | <p>Richard Burgi Public Works Department</p> | <p>Year 2</p> |

| | | | |
|--|---|---|---|
| <p>Task 4 - <i>Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites).</i></p> | <p>The City has brochures on pesticide use in both Spanish and English. The City is joining the Our Water Our World program and will be implementing the program in Home Depot. The City will update the website to provide information about pesticide use.</p> <p>The City provides information in regards to recycling e-waste via the City of Chico website through a link to buttecounty.net.</p> <p>In regards to pathogens, the City will develop a brochure, will provide information on the website, will add a message onto dog licenses, and will install posters in Bidwell Park in regards to pet waste.</p> <p>The City will continue to use the developed advertisements for the local newspapers and the outreach materials on the website in regards to illicit discharges and trash. The City will update the television commercials and annually update the Cal Water bill insert.</p> <p>The City will continue to use the Car Wash fundraising brochure, the videos and step-by-step guide on the website, billboards, and the loaner car wash kits.</p> <p>The City will continue to use the existing brochures for construction site operators and for mobile cleaning and pressure washing operations.</p> <p>In regards to landscape irrigation, staff will continue to use the website and the Cal Water bill insert to disseminate information about illicit discharges. The Cal Water bill insert is updated annually.</p> <p>In conjunction with Our Water Our World, the City will have information handouts at Home Depot and City Hall in both English and Spanish. Home Depot will also have shelf talkers (labels under the products) that label products as earthfriendly.</p> <p>*In conjunction with the City’s Proposition 84 grant, the Stream Team will provide volunteer training on LID maintenance and restoration techniques, education on LID practices for businesses and residences, and provide tours of a public LID project.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Develop new materials in Year 1-5</p> <p>Disseminate information Years 1 – 5</p> <p>Year 6 (continuing) – no tv commercials this year</p> <p>Billboards – Year 2-3 and Year 6</p> <p>*The Proposition 84 grant is completed. The outreach associated with this is not ongoing.</p> |
|--|---|---|---|

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|---|---|--|---|
| <p>Task 5 - <i>Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program.</i></p> | <p>As described in <u>Section 2.3.1</u> of the E&O Plan, identifies the method that the city will use to solicit and utilize public input in the development of the E&O program.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Obtain initial input in Year 2</p> |
| <p>Task 6 - <i>Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy.</i></p> | <p>Brochures will be distributed at City Hall and will be made available on the keepchicoclearn.org website. The brochures regarding pet waste will also be offered to pet stores to make available to the public.</p> <p>The advertisements will be placed in the Chico Enterprise Record and the Chico News and Review, run on cable television, and placed on billboards. The advertisements includes commercials, ads, and posters. The utility bill inserts will be placed in the water bill.</p> <p>Information regarding e-waste recycling, illicit discharges, trash, organized car washes, and landscape irrigation will be on keepchicoclean.org website.</p> <p>The City will also be participating in Our Water Our World program. In conjunction with Home Depot, the City will place pesticide and landscape maintenance information in a display rack in each store as well as “shelf talkers” which let the customer know the product is earthfriendly.</p> <p>The City will also be adding a message to dog licenses regarding pet waste. Posters will also be added to Bidwell Park in regards pet waste.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Years 2 – 5 Year 6 (continuing)</p> |

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|--|---|--|--|
| <p>Task 7 - <i>Convey messages to explain the benefits of water-efficient and storm water-friendly landscaping, using existing information if available.</i></p> | <p>The City has produced a brochure that will be available on the keepchicoclean.org website and at City Hall.</p> <p>*In addition, the City is conducting public outreach in collaboration with The Stream Team for several demonstrative LID projects that include water-efficient and storm water-friendly landscaping. The public outreach includes the following: training volunteers to perform LID maintenance and restoration techniques, train businesses and residents about LID practices, and providing tours of one of the projects to educate the public about water-efficient and storm water-friendly landscaping.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Years 2 – 5 Year 6 (continuing) *The Proposition 84 grant is completed. The outreach associated with this is not ongoing.</p> |
| <p>Task 8 - <i>Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, non-emergency phone number with voicemail, which is checked daily.</i></p> | <p>The City of Chico has a Creek Watch hotline that is hosted by the Butte Environmental Council. This hotline directs callers to the appropriate agency to report a spill. The hotline has been in the Yellow Pages and advertised for over ten years. The City of Chico’s website and keepchicoclean.org advertise the hotline. The City of Chico’s website and keepchicoclean.org also advertise a central contact point for spill reporting - City of Chico Storm Water Management Program staff including an afterhours, weekends, and holiday phone number (this number is not 911).</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Spill Plan was developed in Year 1 Develop educational materials in Year 2 Disseminate information and materials: Years 2 – 5 Year 6 (continuing)</p> |
| <p>Task 9 - <i>Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers</i></p> | <p>These activities are identified in Table 7 as Permit-mandated E&O topics. The messages for these activities are identified in <u>Section 2.1.1</u> of the E&O Plan. Table 7 identifies the media of choice, locations to disseminate information, and the common language groups. The City is involved in the Our Water Our World program that provides informational handouts at stores in regards to pesticides, herbicide, and fertilizer use. In conjunction with Home Depot, the City will provide informational sheets regarding pesticides, herbicides and fertilizer use at the store as well as “shelf talkers” that let the customer know if the product is earthfriendly.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Develop educational materials in Year 2 Disseminate information and materials: Years 2 – 5 Year 6 (continuing)</p> |

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|---|---|--|--|
| <p>Task 10 - <i>Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school-age children about storm water runoff and how they can help protect water quality habitat in their local watershed(s).</i></p> | <p>The City will contract with Kids and Creeks to provide education to 5th graders within our jurisdiction. See Appendix 7 of elementary schools in our area. Kids and Creeks provides hands-on activities in the classroom that builds awareness and knowledge of local watershed and common storm water pollutants. Students are taught about identification of BMPs and creek stewardship actions. In addition, classes go on a field trip to the creek to gain hands-on experience and to inspire the students to help protect water quality habitat in our watershed.</p> <p>The City will cooperatively agree with Chico Unified School District (CUSD) to provide funding to assist in sending 5th graders enrolled within CUSD to Shady Creek Environmental Camp.</p> <p>The City will provide electronic materials to schools either via the keepchicoclean.org website, city of Chico website, or via email to help effectively educate the students about storm water runoff and how to protect local water quality habitat.</p> <p>In collaboration with CalRecycle, host a California Education and the Environment Initiative (EEI) training for local teachers.</p> <p>**The Stream Team Clean Water Science Ambassador Program is also providing education in some schools. The education focuses on providing ecological value of watersheds, man-made vs. natural causes of watershed pollution, and the benefits of stormwater management and best management practices.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Year 1-3 – In Appendix 7 of the E&O Plan, compile list of schools to receive Kids and Creeks 5th grade classroom/field trip education.</p> <p>Year 4 – Cooperative Agreement with CUSD.</p> <p>Year 5 – Provide electronic materials to schools.</p> <p>Year 6 forward – electronic materials are available on keepchicoclean.org; host EEI training(s)</p> <p>** This is an independent program that the City has no oversight.</p> |

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|---|---|--|--|
| <p>Task 11 - <i>Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.</i></p> | <p>The City will use existing brochures that have been produced specifically for car wash fundraisers and mobile cleaning and pressure washing operations. These brochures will be available at City Hall and on keepchicoclean.org. The City will also continue to use billboard advertisements to encourage reducing discharges from organized car washes. The car wash kit loan program will also continue. This program allows anyone to check out the car wash kit that contains storm drain protectors, a spill berm, a submersible pump, and a water hose.</p> <p>The City also will continue the Clean Water Business Partner program. Each Clean Water Business Partner makes a personal pledge and commitment to educate their customers and to help prevent runoff by employing best management practices in their daily business operations. The program has targeted several industries, including mobile cleaning and pressure washing businesses.</p> <p>The City will provide one Cal Water bill insert a year focusing on reducing illicit discharges from landscape irrigation.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Add information to keepchicoclean.org in Year 3</p> <p>Billboards in Year 2 – 3, Year 6</p> <p>Disseminate information and materials: Years 1 – 5 Year 6 (continuing)</p> |
| <p>Task 12 - <i>Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction.</i></p> | <p>The City will use the brochure produced specifically for car wash fundraisers. This brochure will be available at City Hall, on keepchicoclean.org, and Code Enforcement staff will hand out brochures in the field when opportunities arise. The City will also continue to use billboard advertisements to encourage reducing discharges from organized car washes. The car wash kit loan program will also continue. This program allows anyone to check out the car wash kit that contains storm drain protectors, a spill berm, a submersible pump, and a water hose.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Develop new educational materials in Year 2</p> <p>Billboards in Year 2 – 3, Year 6</p> <p>Disseminate information and materials: Years 1 – 5 Year 6 (continuing)</p> |

| E&O Tasks from E.7.a.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|---|---|--|---|
| <p><i>Task 13 - Develop and convey messages specific to mobile cleaning and pressure wash businesses.</i></p> | <p>The City will use the brochure produced for mobile cleaning and pressure washing operations. This brochure will be available at City Hall and on keepchicoclean.org. The City also will continue the Clean Water Business Partner program. Each Clean Water Business Partner makes a personal pledge and commitment to educate their customers and to help prevent runoff by employing best management practices in their daily business operations. The program has targeted several industries, including mobile cleaning and pressure washing businesses.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Disseminate information and materials: Years 1 – 5 Year 6 (continuing)</p> |

Public Involvement & Participation Tasks:

| Public Participation Tasks from E.8.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|---|---|--|--|
| <p>Task 1 - <i>Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.</i></p> | <p>The City of Chico’s Comprehensive E&O Plan meets the requirements of Task 1 in that in Section 2.3.1 of this Plan it identifies the methods that the City of Chico will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Year 2</p> |
| <p>Task 2 - <i>Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community’s storm water program.</i></p> | <p>Section 2.3.1 of the E&O Plan identifies that the City of Chico will post the Draft E&O Plan on the Keepchicoclean.org website to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.</p> | <p>Richard Burgi Public Works Dept.</p> | <p>Year 3</p> |
| <p>Task 3 - <i>Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/ beach/ lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).</i></p> | <p>*The City of Chico will be implementing four demonstrative LID projects on City property. The City in collaboration with The Stream Team will be providing volunteer training on LID maintenance and restoration techniques, training for businesses and residents about LID practices, and tours of one of the projects during the weekly Farmer’s Market. The training and tours will be advertised on the City’s website.</p> <p>The City hosts the Comanche Creek Greenway Cleanup Volunteer Sessions. These session are held twice a month and are advertised on the City of Chico’s website.</p> <p>The City also hosts Make a Difference Day in Bidwell Park. Volunteers can help cleanup Bidwell Park at this annual event. The opportunity is noticed on the City’s website and a press release is sent out to media outlets.</p> <p>The City and the Butte Environmental Council host a Bidwell Park and Chico Creeks Cleanup annually. The events are noticed on Butte Environmental Council’s website.</p> | <p><i>Volunteer Cleanup Sessions:</i> Shane Romain Public Works Dept.</p> <p><i>LID projects training and tours:</i> Linda Herman Public Works Dept.</p> <p><i>Volunteer – Replace Storm Drain Markers:</i> Richard Burgi Public Works Dept.</p> | <p>Comanche Creek Greenway Cleanup Volunteer Sessions are held twice a month throughout the year.</p> <p>Make a Difference Day is held in October annually.</p> <p>The LID projects trainings and tours will be scheduled in Year 3 and Year 4.</p> <p>*The Proposition 84 grant is completed. The outreach associated with this is not ongoing.</p> |

| Public Participation Tasks from E.8.(ii) | Implementation Details | Person & Department Responsible for the Implementation of the Task | Schedule for Implementation (Compliance Year) |
|--|---|--|---|
| Task 4 - <i>Ensure the public can easily find information about the Permittee's storm water program.</i> | Information about the City of Chico's storm water program can be found online at keepchicoclean.org and www.chico.ca.us or they can call (530)879-6900 to request information or to speak to a program representative. | Richard Burgi Public Works Dept. | Keepchicoclean.org was implemented in 2007. The website is reviewed and updated bimonthly. |
| Task 5 - <i>Actively engage in the Permittee's Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort.</i> | The City of Chico participates with the North Sacramento Valley IRWMP. | Council member, Ann Schwab, represents the City at the Board meetings and currently serves as the Board Chair. | The City of Chico became involved in the IRWMP in the mid-2000s. The City continues to be involved in the process with our representation on the Board. |

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APPENDIX 7 – LIST OF SCHOOLS

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List of Schools within the Phase II MS4 Permit Boundary of the City of Chico

| School Name | Grade Levels | Public or Private? | Contact Information | Compliance Year (Kids & Creeks) | Compliance Year (Shady Creek) | Compliance Year (Curriculum) |
|-------------------------------|--------------|--------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------------|
| Chapman Elementary | K-6 | Public | Mike Allen – 530-891-3100 | Year 1, 2 | Year 4 | Year 5 |
| Citrus Elementary | K-6 | Public | Rachel Tadeo – 530-891-3107 | Year 1-3 | Year 4 | Year 5 |
| Emma Wilson Elementary | K-6 | Public | Kim Rodgers – 530-891-3297 | Year 1-3 | Year 4 | Year 5 |
| John A. McManus Elementary | K-6 | Public | Kristine Keene – 530-891-3128 | Year 1-3 | Year 4 | Year 5 |
| Little Chico Creek Elementary | K-6 | Public | Kristen Schrock – 530-891-3285 | Year 1-3 | Year 4 | Year 5 |
| Marigold Elementary | K-6 | Public | Shawneese Heath – 530-891-3121 | Year 1-3 | Year 4 | Year 5 |
| Neal Dow Elementary | K-6 | Public | David Murgia – 530-891-3110 | Year 3 | Year 4 | Year 5 |
| Parkview Elementary | K-6 | Public | Holly McLaughlin – 530-891-3114 | Year 1-3 | Year 4 | Year 5 |
| Shasta Elementary | K-6 | Public | Bruce Besnard – 530-891-3141 | Year 1-3 | Year 4 | Year 5 |
| Sierra View Elementary | K-6 | Public | Mele Benz – 530-891-3117 | Year 1-3 | Year 4 | Year 5 |
| Rosedale Elementary | K-6 | Public | Jo Ann Bettencourt – 530-891-3104 | Year 1 | Year 4 | Year 5 |
| Hooker Oak Elementary | K-6 | Public | Brian Holderman – 530-891-3119 | Year 1-3 | Year 4 | Year 5 |
| Notre Dame School | K-8 | Private | Terri Schwabauer - 530-342-2502 | Year 1, 2 | | Year 5 |
| Blue Oak Charter School | K-8 | Public | Stephanie Nicols – 530-879-7483 | Year 3 | | Year 5 |
| Chico Country Day School | K-8 | Public | Suzanne Michelony - 530-895-2650 | Year 1-3 | | Year 5 |
| Chico Christian School | K-8 | Private | 530-879-8989 | School closed Year 5 | | |
| Sherwood Montessori | K-8 | Public | Michelle Yezbick - 530-345-6600 | Year 3 | | Year 5 |
| Chico Oaks Adventist | K-8 | Private | Rick Nelson – 530-342-5043 | | | Year 5 |
| Wildflower Open Classroom | K-8 | Public | Tom Hicks - 530-892-1676 | | | Year 5 |
| Loma Vista | K-12 | Public | Jeaner Kassel – 530-879-7400 | | | Year 5 |
| STEP UP Academy | K-8 | Public | Terri Tozier – 530-879-7411 | | | Year 5 |

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APPENDIX 8 – LIST OF COLLABORATING MUNICIPALITIES

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Collaborating Phase II MS4s:

Cities

City of Atwater
City of Ceres
City of Chico
City of Escalon
City of Lathrop
City of Lodi
City of Merced
City of Oakdale
City of Paradise
City of Patterson
City of Ripon
City of Riverbank
City of Turlock
City of West Sacramento

Counties

Merced County
San Joaquin County (Phase II Portion)
Stanislaus County
Yuba County