

**CITY OF CHICO  
STORM WATER MANAGEMENT PROGRAM**

**Submitted to:**

**California Regional Water Quality Control Board  
Central Valley Region**

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# Table of Contents

Executive Summary	i
Acronyms and Terms as Used in this Document	vi
1. INTRODUCTION	
1-1 The Program	1
1-2 Program Organization	1
1-3 Program Update Process	2
2. PROGRAM OVERVIEW	
2-1 Program Implementation Overview	2
2-2 Regulatory Background	3
3. PROGRAM MANAGEMENT	
3-1 Introduction	3
3-2 Program Strategy	3
3-3 Program Priorities and Management Activities	4
3-4 Legal Authority	4
3-5 Program Organization	4
3-6 Annual Planning and Reporting Activities	5
3-7 Implementation and Interaction with Other Agencies	5
3-8 Relationship of Program Elements to the Permittees' Efforts	5
3-9 Participation in Regional, Statewide, and National Activities	6
3-10 Illicit Discharge Enforcement Procedure	6
4. PROGRAM ELEMENT IMPLEMENTATION	
4-1 Introduction	6
4-2 Public Education and Outreach Element	7
4-3 Public Participation/Involvement Element	12
4-4 Illicit Discharge Detection and Elimination Element	14
4-5 Construction Site Storm Water Runoff Control/New Development Element	18
4-6 Post-Construction Storm Water Management Element	21
4-7 Pollution Prevention/Good Housekeeping for Municipal Operations Element	27
5. PROGRAM EVALUATION ACTIVITIES	
5-1 Introduction	31
5-2 Evaluation Strategy	31
5-3 Program Performance and Effectiveness Evaluation	32
5-4 Reporting Performance and Effectiveness Evaluations	32
5-5 Continued Program Improvements	32
APPENDIX A - City of Chico MS4 NPDES Storm Water Permit Application (N.O.I.)	
APPENDIX B - City of Chico Storm Water Ordinances	
APPENDIX C – Agreements	
APPENDIX D - Program Element Accomplishments, Annual Reports	
APPENDIX E – Program Tasks and Time Lines	

## EXECUTIVE SUMMARY

This document presents the City of Chico's Draft Storm Water Management Program (SWAP) for submittal to the Regional Water Quality Control Board. The document has been prepared by Public Works – Engineering Division.

The purpose of the SWMP is to present a program that is consistent with Federal and State regulations and to meet permitting requirements. Specific objectives of this document include: presenting a review of the legal framework for the necessity of being permitted and a brief background on pollutants, urban runoff, and the City's storm water facilities; the program itself; estimated costs to implement the program; and penalties for failure to comply with regulations and the program.

### A. Legal Regulatory Framework

The 1987 Clean Water Act amendments required the U.S. Environmental Protection Agency (EPA) to develop a tiered implementation strategy for the National Pollution Discharge Elimination System (NPDES) Storm Water Program. Phase I began in the early 1990s and covered municipalities and urban areas of 100,000 population and above. Phase II regulations were published in the Federal Register on December 8, 1999. The Chico Urban Area has been identified as one which is being required to comply with NPDES Phase II permitting because it has been identified as an "Urbanized Area" by the Bureau of Census, specifically, per regulation:

Owners or operators of small, municipal, separate, storm sewer systems (MS4s) located in any incorporated city, county, or place under the jurisdiction of a governmental entity within a census-designated urbanized area. Small MS4s located in a census-designated urbanized area (such as the Chico Urban Area) must apply for a NPDES permit by March 10, 2003. Some cities or counties may be partially located in census-designated urbanized areas. Only the portion located in the urbanized area would be automatically regulated.

In the Chico Urban Area, the County of Butte, City of Chico, Chico Unified School District, and California State University, Chico are required to develop a storm water management program that implements six minimum measures focusing on a Best Management Practice (BMP) approach. The BMPs chosen by the operators of the MS4s should be designed to reduce pollutants in urban storm water compared to existing levels in a cost-effective manner. Best Management Practices include public education, treatment practices, operating procedures, and practices to control site runoff, spillage, or leaks.

NPDES permits are issued for five-year terms and generally follow a progressive pattern. This SWMP presents strategies, goals, priorities, and management activities for years 2003-2008. In the first five years of the program, the focus is on establishing a program customized to local conditions using the following six minimum measures:

1. Public education and outreach;
2. Public participation/involvement;
3. Construction site runoff control;
4. Post-construction runoff control;
5. Pollution prevention/good housekeeping; and
6. Program Evaluation Activities.

Future permits will be issued based on using the knowledge gained during the first five-year permitting and putting it to work on improving water quality incrementally over time.

Public Works has prepared the attached Draft SWMP to comply with NPDES Phase II requirements. A Draft SWMP and Notice of Intent is required to be submitted to the Regional Water Quality Control Board (RWQCB), Redding office, by March 10, 2003.

### A. City's Efforts to Comply

The City has been committed to improving the quality of urban runoff through the development and implementation of a proactive, comprehensive storm water management program that recognized its unique position in the Sacramento River watershed and the need to protect these important resources.

Public Works is responsible for the City storm water drainage conveyance system, which includes gutters, swells, ditches, culverts, storm drain inlets, catch basins, storm drainage pipes, and detention facilities. This conveyance system provides an opportunity for pollutants to reach waterways because motor oil, paint products, pet wastes, and chemicals used in homes and gardens are washed into street gutters and storm drains via rain water. Streets typically contain

vehicle exhaust products, brake and tire materials, oil and grease, litter and other materials that can get flushed through the storm drainage system. This mix of rain and other water is called urban runoff. If not managed, urban runoff and all its pollutants flow untreated through the storm drainage system into local creeks and flood control channels where it can harm wildlife, pollute fisheries, and negatively impact overall water quality.

The City has been working with other agencies and operators in the Chico Urban Area to provide for consistency in the Chico Urban Area Storm Water Management Programs. Those agencies include the County of Butte, Chico Unified School District, and Chico Area Recreation Department. Representatives from these agencies met biweekly for several months to draft their programs. By working together, the program for each agency in the Urban Area will be consistent in approach.

## **B. Storm Water Management Program**

The attached program will guide staff activities related to storm water control with the objective of this program to:

- Effectively manage and coordinate implementation of the storm water program;
- Identify and eliminate illicit connections and illicit discharges to the storm drain system;
- Reduce storm water impacts associated with development and redevelopment projects;
- Reduce storm water quality impacts associated with public agency activities;
- Increase public knowledge about the impacts of storm water pollution and about actions that can be taken to prevent pollution.
- Increase knowledge and understanding about the quality, quantity, sources, and impacts of urban runoff.
- Evaluate the effectiveness of implementing storm water management programs.

### **1. Purpose and Objective of the Storm Water Management Program**

The purpose of the SWMP, through education, inspection, response, and, if required, water quality monitoring, is to prevent pollutants from entering the storm drainage system. The objectives of the SWMP are to provide guidance to the public and businesses, and act as a coordinating entity towards a cohesive storm water program. An NPDES Phase II SWMP must meet six minimum controls, use best management practices (BMPs) to the maximum extent practicable, and achieve measurable goals.

### **2. The Storm Water Management Program: Six Minimum Control Measures**

The following is a brief overview of the six minimum elements contained in the Draft SWMP and how the City plans to incorporate them.

- a. Public Education and Outreach:  
Generate awareness by educating citizens about the storm water system and the impact of polluted storm water on water quality through educational materials and other outreach programs, such as;
  - i. Storm drain stenciling
  - ii. Developing clean water business partners
  - iii. Sponsoring community events
  - iv. Developing and maintaining a storm water web site
  - v. Developing media campaigns
  - vi. Sponsoring water-wise pest control programs
  - vii. Developing and implementing classroom programs, and
  - viii. Surveying the public
- b. Public Participation/Involvement: Provide opportunities for citizens to be involved in developing and implementing the storm water management program by sponsoring public meetings and panels and water body cleanups.
- c. Illicit Discharge Detection and Elimination:
  - i. Develop and put into action plans to detect and eliminate illicit discharges to storm drainage systems.
  - ii. Develop a system map and inform citizens of hazards associated with illegal discharges and improper wastewater disposal.
  - iii. Create a storm water ordinance for regulating illegal discharges and for providing enforcement capability.
  - iv. Coordinate with other agencies with regard to code enforcement, building inspection, proper waste disposal alternatives, updating storm drain system map, etc., and
  - v. Continue to update City GIS.

- d. Construction Site Runoff Control:
  - i. Develop and enforce erosion and sediment control programs for construction sites through use of appropriate BMPs, pre-construction review of Storm Water Pollution Prevention Plans, site inspections during construction for compliance, and penalties for non-compliance.
  - ii. Reduce the discharge of storm water pollutants to the maximum extent practicable.
  - iii. Reduce litter and pollutants of concern such as petroleum product, chemical toilets, herbicides, and pesticides from construction sites.
  - iv. Provide information and serve as technical source to development community.
  - v. Development Engineering review of Notice of Intent and Storm Water Pollution Prevention Plan for construction sites, and
  - vi. Perform BMP research and updates.
- e. Post-Construction Runoff Control:
  - i. Develop and implement programs to address discharge of post-construction storm water runoff from new construction and redevelopment.
  - ii. Develop and implement structural BMPs including storage, infiltration, and vegetative practices.
  - iii. Develop and implement non-structural BMPs including guidelines for proper disposal of household waste and toxins; proper use of pesticides, herbicides, and fertilizer; good housekeeping; preventative maintenance and prevention of spills.
  - iv. Monitor compliance during construction and long-term compliance.
- f. Pollution Prevention/Good Housekeeping:

## ACRONYMS AND TERMS AS USED IN THIS DOCUMENT

The definitions below are intended strictly for clarification purposes, and may not contain the full legal definition as per regulation.

Annual Report	A yearly report to the RWQCB on the Permit's' compliance with the permit requirements, including an accounting of progress made towards each of the Permit's' measurable goals.
BMPs	Best Management Practices – physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of storm water.
CEQA	California Environmental Quality Act.
CWA	Clean Water Act.
EPA	U.S. Environmental Protection Agency.
HHW	Household Hazardous Waste.
Measurable goals	The City's Storm Water Program goals, which are intended to gauge permit compliance and program effectiveness.
MEP	Maximum Extent Practicable – the standard for evaluating permit compliance.
Minimum measures	Storm Water management programs that are required under the NPDES MS4 permit. They include public education and outreach, public participation/involvement, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management, and pollution prevention/good housekeeping for municipal operations.
MS4	Municipal Separate Storm Sewer System – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are owned or operated by the City to dispose of storm water runoff.
Municipality	A city, town, county, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes.
NAWQA	National Water Quality Assessment Program of the U. S. Geological Survey.
N.O.I.	Notice of Intent – Submittal form to comply with the terms of the General Permit for Storm Water Discharges from Small MS4s.
NPDES	National Pollutant Discharge Elimination System – Section 402 of the Federal Clean Water Act.
Permittee	the MS4 operator to whom the NPDES storm water discharge permit is issued.
Phase II	Second stage of the State and Federal storm water permit.
RWQCB	Regional Water Quality Control Board.
SIE	Separate Implementing Entity – an entity, such as a school district, other than the entity in question, that implement parts or all of a storm water program for a Permittee.
SWRCB	State Water Resources Control Board.
SWMP	Storm Water Management Plan.
SWPPP	Storm Water Pollution Prevention Plan.

# 1. INTRODUCTION

## 1-1 The Program

This document presents the City of Chico's Storm Water Management Program (Program). It provides a comprehensive outline to direct the Program and its priorities and activities for the years 2003-2008. This Program was developed as a requirement of Phase II of the National Pollutant Discharge Elimination System (NPDES) Program as ordered by the United States Environmental Protection Agency. The City's Program is required by federal law to be submitted by March 10, 2003. Other agencies within the Chico Urban Area were also automatically designated by the United States Environmental Protection Agency pursuant to 40 CFR t122.32(a)(1) of the Federal Water Pollution Control Act (also referred to as the Clean Water Act) to comply with the Phase II requirements of NPDES. These other agencies are Butte County, Chico Unified School District, and California State University, Chico. Full implementation of the Program is required from each permittee by the end of the 5-year permit term.

The City of Chico has a population of 60,400 within the City limits and 95,000 within the Urban Area as of the January 2000 census. The City is 28.7 square miles, while the Urban Area encompasses 56 square miles. There are five channels traversing the Urban Area that accept storm water runoff. They are Comanche Creek, Little Chico Creek, Big Chico Creek, Lindo Channel, and Mud/Sycamore Creek. Big Chico Creek has spring-run Chinook and Steelhead habitat. Little Chico Creek is a tributary of Butte Creek, which is a spring-run Chinook stream. All of the channels that traverse the Urban Area are tributary to the Sacramento River, a source of drinking and agricultural water for the State of California. The City operates and maintains a vast municipal storm drainage system that consists of miles of pipe, open drainage ditches and detention basins. The detention basins have water quality features incorporated into them. For many years, the City has been committed to improving the quality of urban runoff through the development and implementation of a proactive, comprehensive storm water management program that recognizes its unique position in the Sacramento River watershed and the need to protect these important resources.

## 1-2 Program Organization

The following provides a brief summary of the Program:

- **Chapter 1: INTRODUCTION**

This chapter contains a brief introduction to the Program, information on Program organization, and a description of the process for preparing this Program.

- **Chapter 2: PROGRAM OVERVIEW**

This chapter provides an overview of Program strategy, direction, and organization; and regulatory background and history. It also contains a brief summary of coordination with other storm water programs.

- **Chapter 3: PROGRAM MANAGEMENT**

This chapter provides a detailed description of Program structure, staffing, and funding. It also includes information on the relationship of Program efforts to the activities of Chico Urbanized Area Permittees, Butte County, the Chico Unified School Districts, and California State University, Chico.

- **Chapter 4: PROGRAM ELEMENT IMPLEMENTATION**

This chapter is the heart of the City of Chico's Storm Water Program. A complete description of the six Program Elements are provided: Public Education and Outreach, Public Participation and Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control/New Development, Post Construction Storm Water Management, Pollution Prevention/Good Housekeeping for Municipal Operations. Element-specific activities, BMPs, and effectiveness and performance measures are identified.

- **Chapter 5: PROGRAM EVALUATION ACTIVITIES**

This chapter provides the conceptual approach to Program effectiveness evaluation. Evaluation activities are a required and important aspect of the Program; conducting assessments and obtaining feedback allow for continued improvement of Program activities, including modification of existing activities and identification of new efforts.

- **APPENDICES**

- A - City of Chico MS4 NPDES Storm Water Permit Application (N.O.I.)
- B - City of Chico Storm Water Ordinances
- C - Agreements
- D - Program Element Accomplishments, Annual Reports

### **1-3 Program Update Process**

This Program contains approaches and guidance for activities, Best Management Practices (BMPs), and effectiveness evaluation for the permit term. The approved Program will be in effect until it is replaced or updated in the future. This Program serves to provide the description and approach to effectiveness evaluation. The Annual Reports will provide the specific activities and effectiveness evaluations accomplished for each fiscal year, based on the direction and targets of the Program. Personnel are to be selected, and a variety of work groups will be formed that combine managers and staff from the City, County, the School District, and California State University, Chico, that will develop and administer the elements of this Program. Input from regulators and the public are important to the process of developing an effective Program during the initial permit term.

Activities to obtain input included:

- Conducting meetings with the Regional Board, County departments, City officials and other interested parties
- Announcing availability of the Program
- Posting relevant information and the Program on the City's web site
- Addressing public comments and include in the Program

The intent of the City is to have a current, relevant, and dynamic Program. In order to remain proactive and effective, the Program should reflect the most recent information and needs. The Program will continue to evolve and improve through evaluations and feedback from various sources and activities. Input from regulators and the public throughout the permit term can be used to modify specific portions of the Program. Program effectiveness evaluations and Annual Reports are also used to facilitate review and adjustments to the Program.

The Program will be revised as needed to adjust to future needs. As a living document, modifications may be made directly to the Program, subject to Regional Water Quality Control Board approval. Departmental reports will be prepared yearly to meet long-term Program objectives. The Annual Report to be submitted to the Regional Water Quality Control Board by September 15<sup>th</sup> of each year will describe the activities and accomplishments of the Program during the preceding year starting July 1<sup>st</sup> and ending June 30th.

## **2. PROGRAM OVERVIEW**

### **2-1 Program Implementation Overview**

The City's Storm Water Management Program (Program) is a comprehensive program comprised of various elements and activities designed to reduce storm water pollution to the maximum extent practicable (MEP) and eliminate prohibited non-storm water discharges in accordance with federal and state laws and regulations. These laws and regulations are implemented through National Pollutant Discharge Elimination System (NPDES) municipal storm water discharge permits.

The core Program Elements are:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination



- Construction Site Storm Water Runoff Control / New Development
- Post-Construction Storm Water Management
- Pollution Prevention/Good Housekeeping for Municipal Operations and Facilities

The City of Chico recognizes the importance of effective storm water management. The Department of Public Works provides management and administration of the Program. The Department of Public Works is responsible for the City storm water drainage conveyance system. Drainage facilities include gutters, swales, ditches, culverts, storm drain inlets, catch basins, storm drainage pipes, and detention basins.

## **2-2 Regulatory Background**

The 1972 amendments to the federal Clean Water Act (CWA) prohibited the discharge of pollutants from point sources to waters of the United States, unless the discharge was authorized by a permit issued under the NPDES permitting program. The 1987 amendments to the CWA added Section 402(p), which defined storm water discharges from certain defined municipal and industrial activities as point sources required to be permitted by a NPDES permit. The amendments directed the U.S. Environmental Protection Agency (EPA) to adopt regulations establishing permitting requirements for municipal and industrial storm water discharges. The Phase I amendments also required storm water discharges from municipal separate storm sewer systems (known as MS4 systems) serving populations greater than 100,000 to obtain coverage under a national surface water permit program. The EPA then developed the Phase II Storm Water Program to include small MS4 systems in urban areas and operators of small construction sites. In California, the federal National Pollution Discharge Elimination System (NPDES) permitting program is implemented through the Porter-Cologne Act, a part of the California Water Code, by the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards).

The EPA promulgated the NPDES Phase II regulations on December 8, 1999. Municipalities to be addressed in Phase II are defined as any municipal separate storm sewer system (MS4s) not already covered by the Phase I program and defined by the Bureau of Census as an “Urbanized Area” or on a case-by-case basis on small MS4s located outside of “Urbanized Areas” that the NPDES permitting authority designates.

## **3. PROGRAM MANAGEMENT**

### **3-1 Introduction**

This chapter presents the City of Chico Storm Water Management Program (Program) strategy, goals, priorities and management activities for 2003-2008; legal authority; organization; planning and reporting activities; and budget/staff resources. The continuing joint activities and coordination efforts of the City of Chico Area Storm Water Permittees are included as well as activities in which the City of Chico implements portions of the Program through coordination with other programs and agencies.

### **3-2 Program Strategy**

The 1987 amendments to the Clean Water Act added Section 402(p), which established National Pollutant Discharge Elimination System (NPDES) permit requirements for municipalities to develop and implement comprehensive storm water management programs. The storm water management program is required to describe the Best Management Practices (BMPs) to reduce the discharge of pollutants in storm water runoff to the maximum extent practicable (MEP). The MEP standard for municipal storm water management programs is also required by U.S. Environmental Protection Agency (EPA) Phase II storm water regulations promulgated on December 8, 1999.

This strategy is pursued through the implementation of the City ’s Program. The Program is a living document with periodic modifications to ensure that it is effectively carrying out activities to accomplish the Program mission. If it is determined that the Program is not adequately addressing particular pollutants or sources, minor modifications and additions will be identified, which are submitted to the Regional Water Quality Control Board, for review and approval.

Significant changes in the scope or direction of the Program will be accomplished through a Program revision or update process in accordance with Regional Board procedures. Modifications to the Program will generally be made in response to effectiveness evaluations and to incorporate new Best Management Practices (BMPs). It is

important that the Plan reflects current and improved BMPs and includes activities that have been shown to be successful in other storm water programs.

- **Pollutant Removal:** Will the BMP address the target pollutant?
- **Regulatory Compliance:** Is the BMP compatible with environmental regulations?
- **Public Acceptance:** Does the BMP have public support?
- **Implementation:** Is the BMP compatible with land uses, facilities, or the activity in question?
- **Technical Feasibility:** Is the BMP technically feasible considering soils, geography, etc.?
- **Cost Effectiveness:** Is the cost for the BMP commensurate with the environmental benefit?

The City is committed to the continual expansion of the core Program Elements to further incorporate pollutant reduction activities. These strategies explore opportunities for participation in regional, state, and national efforts to address storm water pollution issues that are beyond the City's ability to control at the local level.

Expanding core Program activities will require increasing Program efficiency, utilizing experience from other programs, and participating in local and regional coordinated efforts.

### **3-3 Program Priorities and Management Activities**

Program priorities for 2003-2008 include implementing the Program and achieving regulatory compliance. Staff will continue to develop and improve Program activities to reduce storm water pollution to the MEP and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various City departments such as Planning, Building, Operations and Maintenance, and Public works. See appendix E for responsible Departments. Another high priority for staff will be to keep abreast of the latest technology and approaches to storm water management. Program activities will also strive to encourage environmental stewardship and continue to build partnerships with other agencies and the community for active participation in accomplishing the Program goals.

### **3-4 Legal Authority**

Legal authority and responsibility to implement a municipal storm water management program is provided in the Federal Clean Water Act (CWA), California Water Code, and associated regulations. The California Environmental Quality Act (CEQA) and Subdivision Map Act also provide municipalities with authority to establish conditions for development projects. This legislation, coupled with the development of additional City ordinances, will provide sufficient legal authority to implement and administer the Program within the permit term.

### **3-5 Program Organization**

The Program is a comprehensive storm water management program that includes the traditional core elements necessary to comply with federal and state regulations. The core elements include Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control/New Development Element, Post Construction Storm Water Management, and Pollution Prevention/Good Housekeeping for Municipal Operations. The City seeks innovative, proactive activities to tackle the most significant local problems. Public education and resultant changes in behavior are necessary to bring about long-term improvements to urban runoff quality and protection of the environment.

Another important aspect of the Program is that each Program Element includes ongoing development in an interactive feedback process resulting in a suite of activities tailored to meet Program goals. It is important to strive to measure or assess the effectiveness of Program activities and BMPs so they can meet current conditions and be continually improved.

The City as a whole, including elected officials, Department Heads, and City employees, are responsible for compliance with the City's MS4 Permit requirements and the Program. The City owns a municipal separate storm drain system. The Department of Public Works is responsible for construction, maintenance, and operation of the storm drainage system as well as the administrative and management functions of the Program. The Department of Public Works is involved with development review to ensure that public and private projects include the necessary control measures for erosion and sediment control as well as permanent features to minimize storm

water pollution from development projects. The review process also ensures that construction projects have the necessary permits and that on-site regional control measures are considered for new development projects.

The Department of Public Works is responsible for Program development and implementation. The Department of Public Works includes staff assigned to the various aspects of the Program.

Staff assignments include responsibilities associated with the Program Elements as well as assistance with Program management activities such as coordination with other agencies. The Program will establish several control programs, procedures, and policies aimed at identifying and reducing sources of storm water pollution caused by discharges, in both wet and dry weather, from the storm drain system. Cost effectiveness is obtained by integrating the Program with existing resources, programs, and functions, as well as cost sharing agreements with Butte County, the School District, and California State University, Chico, whenever possible.

The Department of Public Works provides education, training, and technical assistance to other City departments and the development community; reviews new development projects; provides inspections; develops guidance; and implements multiple activities and BMPs.

The Program is the primary assignment for the Public Works Department. However, staff from other departments such as Planning, Building, and Operations & Maintenance will perform functions for the City's Program, which include maintaining compliance with other regulatory water quality programs; developing and implementing plans for managing sediments and other waste streams generated from routine maintenance of the related City infrastructure; and providing consultation and assistance to the public. Through its various departments, the City provides a full range of activities. See appendix E for responsible Departments

One of the goals of the Program is for City employees to be concerned and knowledgeable as well as responsible for protecting the quality of storm water. Implementation of the Program requires the participation and assistance of other City departments. See appendix E for responsible Departments

### **3-6 Annual Planning and Reporting Activities**

The City will perform annual planning and prepare Annual Reports to comply with the NPDES Permit requirements.

### **3-7 Implementation and Interaction with Other Agencies**

In order to be most effective and utilize resources most efficiently, it is important for the Program to implement various programs and efforts through other agencies. This section describes the relationship of the Program to joint activities of other permit holders within the Chico Urban Area; implementation of certain activities through other City departments (see Appendix E); and participation in regional, statewide, and national activities.

### **3-8 Relationship of Program Elements to the Permittees' Efforts**

The City will meet on a regular basis with the other Phase II permit holders to explore sharing resources and will strive to create a comprehensive Program that addresses storm water pollution in the Chico Urban Area.

The Permittees has a long history of information sharing and coordination with other programs in the region for joint projects. A committee comprised of representatives from the Permittees will meet regularly for these purposes. Meetings will include discussion, planning, and decisions on joint efforts. Common responsibilities and programs will be identified to provide regional benefits.

This coordinated approach works well for activities that have clear, common goals and benefits from sharing and combining resources (e.g., BMP special studies; and development of various guidelines, general Program strategies, and pollutant reduction strategies). Incorporation of storm water inspections with Butte County's inspection program is a practical way to conduct industry compliance with storm water regulations efficiently in tandem with existing activities.

Anticipated joint efforts for 2003-2008 include:

- Identification and strategy development for BMP effectiveness

- Illicit spill prevention and notification
- Various regional educational and outreach efforts

### **3-9 Illicit Discharge Enforcement Procedure**

The City will develop an illicit discharge Enforcement Procedure through the development of and or revisions to the City's Code section. The Enforcement will involve written warnings to stop the discharge followed up with fines and court proceedings if necessary.

### **3-10 Participation in Regional, Statewide, and National Activities**

The City will play a role in regional storm water management activities. Program staff will participate in statewide and regional efforts to share information on topics related to storm water quality issues, storm water program implementation, and urban runoff within the context of the watershed as a whole. The purpose of sharing information and coordination is to ensure development of BMPs for the City that are most likely to be effective in reducing storm water pollution to the maximum extent practicable (MEP). Also, some BMPs require partnering with other programs on a state or national level. Coordination with the Regional Board and other programs such as the U.S. Geological Survey National Water Quality Assessment Program (NAWQA) and the Sacramento River Watershed Program may provide valuable information for effective targeting of Program resources.

## **4. PROGRAM ELEMENT IMPLEMENTATION**

### **4-1 Introduction**

Implementation of the City of Chico Storm Water Management Program (Program) is conducted through the Program management activities and six Program Elements: Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post Construction Storm Water Management, Pollution Prevention/Good Housekeeping for Municipal Operations.

The Program provides a description of each Program Element's activities/BMPs and corresponding implementation actions. Minimum performance standards are also provided for those activities/BMPs that are quantifiable and predictable. These performance standards will be used to demonstrate the City's commitment to the Program and achievement of a reasonable level of implementation. Some activities are not easily quantifiable, and minimum performance standards may not be appropriate. Other activities like spill responses and ordinance revisions are not predictable and will therefore be accomplished as needed.

Performance and effectiveness evaluations are key to ensuring that the Program implements activities which are successful in changing behaviors and reducing storm water pollution. Performance measures are intended to describe the level of effort and involve enumeration of activities or the number or percentage of participation in a Program activity. Examples of performance measures include the number of public events attended, training sessions conducted, or media spots. This information is used by Program staff for purposes of planning and scheduling resources required to conduct the Program.

Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable or eliminate non-storm water discharges. This information is used to focus and modify activities to maximize environmental benefits. Effectiveness measures include quantifying the effectiveness of a particular effort; for example, the percentage increase in public awareness is measured by public opinion surveys. The results of these effectiveness evaluations, including performance and effectiveness measures, will be provided in the Annual Reports.

The Annual Reports will quantify the previous fiscal year (where possible), including the performance and effectiveness of activities, BMPs, and specific tasks. This annual evaluation will assess how well the Program goals were achieved and whether the minimum performance standards were accomplished. Activities and specific BMPs may also be modified, added, or deleted as needed to meet Program Element goals. In-depth evaluation of each Program Element will be conducted at least once during this 5-year span, or as needed.

## **4-2 Public Education and Outreach Element**

The Public Education and Outreach Element is the cornerstone of the City of Chico Storm Water Management Program (Program). Whether dealing with the general public, local industry, developers, or City of Chico officials and departments, the goal of the Public Education and Outreach Element is to: (1) generate awareness of storm water pollution prevention by educating people about the storm drain system and its relationship to the health of local waterways; and (2) change behavior patterns through education and encouragement of active participation in water pollution prevention and (3) let the public know what steps they can take to reduce pollutants in storm water runoff.

Outreach activities can be grouped into four categories:

- Outreach to the general public and target sectors
- Outreach to children and schools
- Outreach to public officials and agency managers
- Regional activities

It has become evident over the years that an important component of a successful outreach program for all categories is a commitment to building lasting relationships and partnerships. These partnerships assist in promoting the strategic plan's key messages and expand City resources. During the permit term, the Public Education and Outreach Element will continue to actively seek opportunities to work with others to promote water quality protection and the quality of life in the City of Chico.

Because City staff is highly visible in the community, City department activities are a vital target for partnerships. The coordinated efforts of the Public Education and Outreach and Pollution Prevention/Good Housekeeping for Municipal Operations Elements will result in knowledgeable City staff that can implement appropriate control measures and serve as role models for water quality protection.

The Public Education and Outreach Element will become an active presence in classrooms through elementary school classroom presentations with development and implementation of water quality curricula. The long-range goal is to become an integral part of the classroom lesson plan developed for each school year. By educating the children about the importance of water quality protection, a new generation will have the necessary tools to make informed decisions on how best to protect Butte County's natural waterways.

### **Public Education and Outreach Element Activities - Best Management Practices**

#### **Public Education-I: General Public and Target Sector Outreach**

##### **PE I-A: Storm Drain Inlet Stenciling/Marking Program**

Require that newly constructed DI be to be stenciled. Promote volunteer storm drain inlet stenciling through volunteer organizations, community neighborhood associations, and schools. Develop and distribute information on the program and the storm water Web site. Inspect 10% of DI's every year for maintenance of storm drain markers. Manufacturers of storm drain markers indicate a 10-year life of the marker.

##### **PE I-B: Clean Water Business Partners**

Develop a priority list of businesses that may impact water quality as a result of the services they provide. Annually provide these businesses with appropriate brochures of proper BMP's.

##### **PE I-C: Community Events**

Partner with environmental and watershed groups and provide staff for storm water pollution prevention informational booths at public events such as farmers' markets, the Silver Dollar Fair and Butte County Fairs, Pollution Prevention Week, and other community activities.

##### **PE I-D: Storm Water Web Site**

The City will develop and maintain a storm water Web site. This website will provide educational material, downloadable and printable material. The website will also give a place to receive public feedback and report Illicit Discharges.

### **PE I-E: Media Campaigns**

Develop multimedia campaigns and partnerships to target large sectors of the population. Look for ways to partner with businesses or industries.

### **PE I-F: Pet Waste Control**

Post signs along major public trails to educate and remind the public as to their responsibility to clean up waste from their pets. Non-compliance with pet waste rules will result in a fine.

### **PE I-G: Public Knowledge Measurement Surveys**

Conduct an initial public survey early in the permit term to serve as a baseline for determining the level of the public knowledge related to storm water pollution. Distribute one survey starting in year 05/06 and then one survey every other year thereafter to measure outreach effectiveness.

### **PE I-H: Water Wise Pest Control Program**

By providing literature and brochures, encourage nurseries, landscapers, and pest control operators to use less toxic methods of pest control in order to reduce pesticide toxicity in urban creeks.

### **Public Education-II: School Outreach**

#### **PE II-A: Storm Water Classroom Presentations**

Work with local Elementary Schools to include a storm water pollution message into their curriculum.

### **Public Education-III: Public Agency Outreach**

#### **PE III-A: City Officials**

Provide opportunities for local agency officials to participate in environmental education and the distribution of material for local groups.

#### **PE III- B: Annual City Council Update**

Provide City Council with copies of Annual Reports as they are submitted to the Regional Water Quality Control Board.

#### **PE III-C: City Department Partnerships**

Provide a program to educate City personnel about the importance of water quality through training, brochures, and newsletters. Brochures will be made available at public counters.

### **Public Education-IV: Statewide and Regional Outreach Activities**

#### **PE IV-A: Storm Water Quality Task Force**

Continue to work with other regions to share information.

### **Effectiveness Evaluation**

There are many methods of evaluating the effectiveness of the Public Education and Outreach Element. The success of some BMPs, such as participation in community events and the volunteer storm drain stenciling program, may be evaluated through public response or the amount of information that is distributed. The number of people reached or the frequency of the message may measure media campaigns. However, the best tool for measuring the effectiveness of overall outreach efforts will be the public knowledge measurement survey developed as part of the original strategic plan. The survey provides information on whether or not the public is receiving and accepting the outreach information in the format in which it has been presented. The information

indicates whether or not there is a trend toward behavioral change and stewardship, while providing an updated base for continuing outreach efforts.

### **Performance and Effectiveness Measures**

The following are examples of the type of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information is used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable (MEP) or eliminate non-storm water discharges. This information is used to focus and modify activities to maximize environmental benefits. The specific goals and level of effort for effectiveness evaluation activities as well as the results of the performance and effectiveness measures will be provided in the Annual Reports.

### **Public Education-I: General Public and Target Sector Outreach**

#### **PE I-A: Storm Drain Inlet Stenciling Program**

- Number of storm drain inlets stenciled (P)
- Requirement of new storm drain inlets to be Stenciled (P)

#### **PE I-B: Clean Water Business Partners**

- Develop List of business to be targeted (P)
- Develop brochures for each type of business identified (P)
- Distribute brochures to business listed and make available on website (P)

#### **PE I-C: Community Events**

- Contact Local environmental and watershed groups about partnering (P)
- Develop Locally appropriate storm water outreach materials for handout at community events and make available on website (P)
- Attend community events. (P)

#### **PE I-D: Storm Water Web Site**

- Create City storm water website (P)
- Continue to modify, update, and add new features to website (P)

#### **PE I-E: Media Campaigns**

- Develop brochure
- Number of brochures handed or mailed out (P)
- Frequency of message (P)
- Feedback from target audience (E)

#### **PE I-F: Pet Waste Control**

- Number of pet waste stations installed (P, E)
- Number of fines handed out (P, E)

#### **PE I-G: Public Knowledge Survey**

- Number of surveys handed out and received (P, E)
- Survey results (E)

**PE 1-H: Water-wise Pest Control Program**

- Materials developed for distribution (P,E)
- Number of brochures mailed out

**Public Education-II: School Outreach**

**PE II-A: Storm Water Classroom Presentations**

- Number of classrooms participating (P)
- Results of pre and post presentation testing (P,E)
- Response from teachers and students (E)

**Public Education-III: Public Agency Outreach**

**PE III-A: City Officials**

- Participation in events (P)
- Number of proclamations awarded (P)

**PE III-B: Annual City Council Update**

- Response from City Council members (E)
- Requests for materials (P)

**PE III-C: City Department Partnerships**

- Number of employees from other departments participating in events (P)
- Departments incorporating water quality message in department outreach (P,E)

**Public Education-IV: Statewide and Regional Outreach Activities**

**PE IV-A: Storm Water Quality Task Force**

- Participate in local and statewide outreach campaigns (P)

The following is an example of measurable goals for a Public Education and Outreach plan for the initial permit term.



Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Public Education and Outreach Element Activities							
Public Education -I: General Public and Target Sector Outreach							
PE I-A Storm drain inlet stenciling	<ul style="list-style-type: none"> <li>• Require 100% of new storm drain inlets to be stenciled.</li> </ul>						Assistant Director Of Public Works
	<ul style="list-style-type: none"> <li>• Stencil 20% of existing storm drain inlets per year</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Develop maintenance program and inspect 10% of storm drain inlets per year</li> </ul>						ADPW



Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
<b>Public Education and Outreach Element Activities</b>							
PE I-B Clean Water Business Partners	<ul style="list-style-type: none"> <li>Develop list of types of businesses to be targeted</li> <li>Develop a mailing list of businesses to be targeted</li> <li>Develop one brochure for each type of Business identified</li> <li>Distribute brochure to 100% of businesses listed &amp; make available on City website</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
<b>Public Education –I: General Public and Target Sector Outreach</b>							
PE 1-C Community Events	<ul style="list-style-type: none"> <li>Develop a list of local environmental and watershed groups for possible partnering</li> <li>Contact Local Environmental and watershed groups about partnering for community events</li> <li>Develop at least one locally appropriate brochure for handout at community events and make available on the City web site and then one each year thereafter until three per year is reached</li> <li>Attend at least one community event per year</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
PE 1-D Storm Water Website	<ul style="list-style-type: none"> <li>Create initial City Storm water website</li> <li>Continue to modify, update, and add new features to the website</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
PE 1-E Media Campaigns	<ul style="list-style-type: none"> <li>Research cost for newspaper ads, radio spots, TV spots, and billboards</li> <li>Develop a list of potential community groups, businesses, and other agencies for partnering with and cost sharing</li> <li>Research Partnering and cost sharing opportunities with community groups, businesses, and other agencies &amp; develop a media campaign.</li> <li>At a minimum implement two storm water message newspaper ads per year</li> <li>Mail one brochure with storm water message with water bill at least once per year</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
PE I-F Pet Waste Control	<ul style="list-style-type: none"> <li>Continue to post pet waste information and collection bag stations at public trails and parks at a rate of at least one per year</li> </ul>	█	█	█	█	█	Park Director (P.D.)
PE I-G Public Knowledge Measurement Surveys	<ul style="list-style-type: none"> <li>Research existing public knowledge surveys created by other agencies</li> <li>Develop a locally appropriate public survey</li> <li>Distribute public survey at community events collect them and analyze the results at least once a year at the community events</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW
PE 1-H Water-Wise Pest Control Program	<ul style="list-style-type: none"> <li>Develop list of local nurseries, landscapers, and pest control operators</li> <li>Develop and distribute at least one brochure for each type of business</li> </ul>	█	█	█	█	█	ADPW
		█	█	█	█	█	ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Public Education and Outreach Element Activities							
Public Education –II: School Outreach							
PE II-A Storm Water Classroom Presentation	<ul style="list-style-type: none"> <li>Investigate and determine what classroom presentations are currently being done by the School District or and or other Groups</li> <li>Review current presentation for appropriate content and frequency of message</li> <li>Incorporate existing classroom presentations, if necessary into City program or vice versa</li> <li>Implement program into one K-6<sup>th</sup> grade class per school once per year</li> </ul>	■	■	■	■	■	ADPW
		■	■	■	■	■	ADPW
		■	■	■	■	■	ADPW
		■	■	■	■	■	ADPW
Public Education – III: Public Agency Outreach							
PE III-A City Officials	<ul style="list-style-type: none"> <li>Provide information to City Council regarding upcoming community events and encourage Council participation starting with one event in 04/05 up to three events per year</li> </ul>	■	■	■	■	■	ADPW
PE III-B Annual City Council Update	<ul style="list-style-type: none"> <li>Provide City Council with copies of the annual report as they are submitted to the RWQCB once per year</li> </ul>	■	■	■	■	■	ADPW
PE III-C City Department Partnerships	<ul style="list-style-type: none"> <li>Provide information to Department Heads regarding upcoming community events and encourage staff participation at the three events per year</li> </ul>	■	■	■	■	■	ADPW
Public Education – IV: Statewide and Regional Outreach Activities							
PE IV-A Storm Water Quality Task Force	<ul style="list-style-type: none"> <li>Continue participation in the California Storm Water Task Force, at least two meetings per year</li> <li>Continue to work with other Chico Area NPDES II permittees. Attempt to set up regular meetings with a minimum of two meeting per year</li> </ul>	■	■	■	■	■	ADPW
		■	■	■	■	■	ADPW

### 4-3 Public Participation/Involvement Element

The Public Participation/Involvement Element of the City of Chico’s Storm Water Management Program will allow the public to provide valuable input and assistance in implementing the Program.

#### Benefits of a Public Participation and Involvement Program

Since it is the activities of the public within urban landscapes that produce diffuse pollution, and the public funds municipalities, it is imperative that the public is given opportunities to play an active role in both the development and implementation of the Program. An active and involved community is crucial to the success of a storm water management program because it allows for:

- **Broader public support**, since citizens who participate in the development and decision-making process are partially responsible for the Program and are more likely to take an active role in its implementation;
- **A broader base of expertise and economic benefits**, since the community can be a valuable, free, intellectual resource; and

- **A conduit to other programs**, as citizens involved in the storm water program development and implementation process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program integrated on a watershed basis.

To satisfy this minimum control measure, the City of Chico will:

- Comply with applicable State and local public notice requirements using an effective mechanism for reaching the public; and
- Determine the appropriate Program activities and measurable goals for this minimum control measure. Possible implementation approaches are described below.

Guidelines for developing and implementing this measure will include public participation in developing, implementing, and reviewing each minimum measure of the storm water management Program. The public participation process should make every effort to reach out and engage all economic and ethnic groups.

The best way to handle common notification and recruitment challenges is to know the audience and think creatively about how to gain its attention and interest. Since traditional methods of soliciting public input, such as advertising in local newspapers to announce public meetings and other opportunities for public involvement, are not always successful in generating interest and subsequent involvement in all sectors of the community, possible alternative methods of advertising to be used whenever possible may include radio or television spots, postings at bus stops, billboards, announcements in neighborhood newsletters, announcements at civic organization meetings, distribution of flyers, and mass mailings. These efforts, of course, are closely tied to the efforts for the Public Education and Outreach minimum control measure.

### **Public Participation/Involvement - Best Management Practices**

#### **PP I-A: Public Meetings/Website Postings**

Allow citizens to present various viewpoints and provide input concerning appropriate storm water management policies and program activities.

#### **PP I-B: Community Water Body Cleanups**

Creek cleanups are currently being conducted by various organizations with the City. The City will Partner with these organizations and others which want to get involved and allow citizens to participate in the cleanup of different water body drainage areas under the direction of either the City, school districts, or watershed groups. This partnering of governmental and citizen groups will help foster good working relationships throughout the community.

### **Effectiveness Evaluation**

Measurable goals are intended to gauge permit compliance and Program effectiveness. At a minimum, the measurable goal for this Program would be to provide adequate public notice of all public hearings, published in a community publication or newspaper of general circulation, when implementing the storm water management programs required under the permit.

#### **PP I-A: Public Meetings**

- Number of Notices for public meetings or items posted on City Website(P)

#### **PP I-B: Community Water Body Cleanups**

- Number of cleanups performed (P)
- Amount of public participation increases (P,E)

The following are examples of measurable goals used for a Public Participation/Involvement minimum measure during the initial permit term.

= Year Implemented
= Ongoing Update

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts.
		03/04	04/05	05/06	06/07	07/08	
Public Participation/Involvement							
Public Participation/Involvement-I:							
PP I-A Public Meetings	<ul style="list-style-type: none"> <li>Information about programs will be discussed at public meetings and or made available on the City's web site to encourage citizen participation and allow input to all programs being developed as part of this SWMP in addition to the SWMP itself.</li> </ul>						ADPW
PP I-B Community Water Body Cleanups	<ul style="list-style-type: none"> <li>Continue to partner with local groups and sponsor two creek cleanup events per year</li> </ul>						ADPW

**4-4 Illicit Discharge Detection and Elimination Element**

The goal of the Illicit Discharge Detection and Elimination Element is to prevent non-storm water sources from entering the drainage system and from reaching Butte County waterways and the Sacramento Valley waterways. Achieving the goal of the Illicit Discharge Detection and Elimination Element depends on the coordinated efforts of all other local agencies.

The public also plays an important role in identifying and reporting incidents of spills or illegal dumping. In addition to activities currently being practiced, additional planned activities are: (1) development of structured enforcement policy and guidance procedures, with appropriate monetary penalties and/or cost recovery for violations of the City of Chico Storm Water Ordinance (Storm Water Ordinance); (2) identification of high priority watersheds or drainage areas for targeted investigation/enforcement/correction efforts; (3) public education of illicit discharge identification and reporting procedures and alternatives for proper disposal methods; (4) mapping of the storm water conveyance system within the Chico Urban mapped area.

**Illicit Discharge Detection and Elimination Element Activities - Best Management Practices**

**Illicit Discharge-I: Storm Water Ordinance Enforcement**

Create a Storm Water Ordinance, which provides the legal authority for regulating illegal discharges. Development of enforcement policy, procedures, and guidance for Program staff and other City departments in accordance with the Storm Water Ordinance and other City codes. Ensure compliance with the Storm Water Ordinance.

**ID I-A: Create Ordinance**

Create and periodically review, as necessary, the Storm Water Ordinance. Develop and implement administrative enforcement procedures and guidance for violations of the Storm Water Ordinance. Maintain compatibility with related ordinances, federal and state law.

The Following categories are authorized as non-storm water discharges unless they are identified as a significant contributor of pollutants: 1) Water line flushing; 2) Landscape irrigation; 3) Diverted stream flow; 4) Rising ground water; 5) Uncontaminated ground water infiltration; 6) Uncontaminated pumped ground water; 7) Discharge from potable water source; 8) Foundation drains; 9) Air conditioning condensation; 10) Irrigation water; 11) Springs; 12) Water from crawl spaces pumps; 13) Footing drains; 14) Lawn watering; 15) Individual car washing; 16) Flows from riparian habitats and wetlands; and 17) De-chlorinated swimming pool discharge.

## **Illicit Discharge-II: Plan Development**

Develop a plan to detect and address illicit discharges which will include identifying priority areas for screening, determining the source if any, and eliminating the illicit discharge.

### **ID II-A: Identify Priority Areas**

Develop and prioritize a list of outfalls based on the likelihood of illicit connections or discharges. Methods of prioritizing areas may include but are not limited to visual screening and public complaints. City staff will visually inspect and measure pH. City Staff will attend training on illicit discharges when training becomes available.

### **ID II-B: Find the Source**

If an illicit discharge is detected, additional efforts will be used to determine the source. Methods of prioritizing areas may include but are not limited to tracing the discharge upstream of the storm drain facility and determining ways to eliminate discharge.

### **ID II-C: Remove/Correct Illicit Connection**

Once the source is identified, the offending discharger will be notified and directed to correct the problem. The Storm Water Ordinance will provide direction for enforcement and punitive measures.

## **Illicit Discharge-III: Illicit Discharge Prevention**

Identify measures for illicit discharge identification and the promotion of correct disposal alternatives and preventative measures for both the public and private sectors, in conjunction with the Public Education and Outreach Element.

### **ID III-A: Strategy**

Coordinate with the Public Education and Outreach Element and other agencies to educate the public and business sectors about proper waste disposal alternatives. Develop guidance and enforcement policy for application of the City's Storm Water Ordinance, which will include measures for reporting, spill response, investigation, and cleanup.

### **ID III-B: Storm Drain Stenciling**

Develop and maintain the volunteer storm drain stenciling program and new development inlet labeling program.

### **ID III-C: Hazardous Waste Collection**

In conjunction with the Butte County Solid Waste Division, continue to promote the availability of the small quantity household hazardous waste (HHW) collection center.

### **ID III-D: Waste Oil Collection**

Continue to support the agricultural and used oil recycling program performed by the Butte County Solid Waste Division.

## **Illicit Discharge-IV: Storm Drain System Map**

Continue to update the City's storm drain system map. The storm drain map is to indicate the intake and discharge areas of the system. It is to help determine the possible sources of dry weather flow and the particular waterbodies these flows may be affecting.

#### **ID IV-A: Develop Storm Drain System Map**

Continue to update the City's storm drain system map which shows the locations of all outfalls, tributary areas, and the names and locations of all waters of the United States that receive discharges from these outfalls. The map will be continually updated as improvement plans are entered into the City's filing system. Along with the annual report, the City will identify new outfalls in the permitted area. The City will submit a report that names the receiving water name, location on the storm drain system map, drainage area in acres, land use designation, and provide certification that the SWMP shall be amended to include the drainage area.

#### **Effectiveness Evaluation**

The number and types of discharge incidents as well as the number of enforcement actions taken measure the effectiveness of the Illicit Discharge Detection and Elimination Element. Assessments will include feedback from drainage maintenance inspectors and other City staff, as well as public comments.

#### **Performance and Effectiveness Measures**

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information is used to focus and modify activities to maximize environmental benefits of the plan. The results of the performance and effectiveness measures will be provided in the Annual Reports.

#### **Illicit Discharge-I: Storm Water Ordinance Enforcement**

- Develop, review and revise Storm Water Ordinance, as necessary (P, E)
- Development and implementation of enforcement procedures and guidance (P, E)
- Support for enforcement activities (P, E)

#### **Illicit Discharge-II & III: Program Development and Illicit Discharge Prevention and Spill Response**

- Number of illegal discharges reported via City Web site (P, E)
- Number of illegal discharges reported via telephone (P, E)
- Total number of spills reported (P)
- Number of illegal discharges identified (P)
- Training for field staff, number of workshops, and attendance (P)
- Feedback from field staff (E)
- Support for spill response (P, E)
- Number of spills responded to, contained, or cleaned up (P, E)
- Number or percentage of spills in which the responsible party is identified (P, E)
- Development of database for reported illegal discharges (P)
- Evaluation of occurrence of common types of illegal discharges and locations (P, E)
- Annual analysis of data for types, frequencies, and locations and updating of database (P, E)
- Number of groups, participants, and storm drains stenciled per year (P, E)

#### **Illicit Discharge-IV: Storm Drain System Map**

- Number of new development projects and storm drains constructed per year (P,E)
- Number of additions of new outfalls from new developments (P)

#### **Measurable Goals**

The measurable goals, as well as the BMPs, should reflect the needs and characteristics of the MS4 operator and the area served by the MS4. The minimum measurable goals for the permit term may include activities such as the following:

= Year Implemented
  = Ongoing Update

Activity/ BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
<b>Illicit Discharge Detection and Elimination Element</b>							
<b>Illicit Discharge -I: Storm Water Ordinance Enforcement</b>							
ID I-A Create Ordinance	<ul style="list-style-type: none"> <li>Review current ordinances and determine where changes/additions are necessary</li> <li>Changes/additions or creation made to the ordinances and get approved by Council</li> <li>Develop and implement an enforcement procedure and guidelines</li> </ul>						ADPW
							ADPW
							ADPW
<b>Illicit Discharge -II: Plan Development</b>							
ID II-A Identify Priority Areas	<ul style="list-style-type: none"> <li>Review storm drain maps and Identify outfalls which include industrial &amp; manufacturing facilities within their tributary areas.</li> <li>During dry weather visually inspect and PH test priority outfalls for illicit discharges and identify them for further investigation and enforcement as necessary</li> <li>Identify non-priority outfalls and visually inspect and PH test for illicit discharges</li> </ul>						ADPW
							ADPW
							ADPW
D II-B Find the Source	<ul style="list-style-type: none"> <li>Trace any illicit discharges identified upstream of initial discovery by visually inspecting manholes and drop inlets until the source is found</li> <li>Make City website available for reporting illicit discharges that will automatically notify storm water personnel</li> <li>Develop a 24-hour telephone procedure for receiving illicit discharge reports</li> </ul>						ADPW
							ADPW
							ADPW
ID II-C Remove/ Correct Illicit Connections	<ul style="list-style-type: none"> <li>Remove identified Illicit discharges pursuant to developed enforcement procedures &amp; guidelines</li> </ul>						ADPW
<b>Illicit Discharge-III: Illicit Discharge Prevention</b>							
ID III-A Storm Drain Stenciling	<ul style="list-style-type: none"> <li>See activities in PE I-A of Public Education and Outreach Activities</li> </ul>						ADPW
ID III-B Hazardous Waste Collection	<ul style="list-style-type: none"> <li>Continue to promote the availability of the regional Household Hazardous Waste Collection Facility</li> <li>Include one brochure in the water bill once per year promoting the facility</li> </ul>						ADPW
							ADPW
ID III-C Waste oil Collection	<ul style="list-style-type: none"> <li>Continue to promote the availability of the used oil collection Facilities.</li> <li>Include one brochure in the water bill once per year promoting the facilities</li> </ul>						ADPW
							ADPW

Activity/ BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Illicit Discharge Detection and Elimination Element							
Illicit Discharge-IV: Storm Drain System Map							
ID IV-A Develop Storm Drain System Map	<ul style="list-style-type: none"> <li>Continue to update the existing storm drain system map to show facilities as they are constructed</li> </ul>						ADPW

#### 4-5 Construction Site Storm Water Runoff Control

The goal of the Construction Site Storm Water Runoff Control Element is to reduce the discharge of storm water pollutants to the maximum extent practicable (MEP) by: (1) requiring construction sites to reduce sediment in site runoff and (2) requiring construction sites to reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management.

Excessive erosion and sediment transport can harm creek habitat through both scour and smothering of spawning areas. The Construction Element conducts outreach activities, development reviews and approvals, and inspections and enforcement at construction sites. This Program Element also develops and maintains standards for erosion and sediment control. Development reviews and approvals include reviewing California Environmental Quality Act (CEQA) documents, applying standard conditions during the entitlement process, and reviewing and approving improvement plans. Appropriate standards are based on research into Best Management Practice (BMP) effectiveness and maintenance requirements.

The Construction Element also assists in educating the development community and municipal project managers about the State General Permit for Discharges of Storm Water Associated with Construction Activities (State Construction General Permit) requirements. Applicable projects must provide proof to the City of Chico that a Notice of Intent (NOI) has been submitted to the State Water Resources Control Board (SWRCB) and a Storm Water Pollution Prevention Plan (SWPPP) has been prepared. This outreach is conducted as part of a slate of outreach activities that also address the City’s own requirements for construction projects.

The development review process will incorporate storm water requirements for private development projects from the planning process to completion of construction. Resources will also be focused on ensuring that all municipal projects have the tools and procedures in place to effectively comply with City and state requirements. This may include items such as the development of activity-specific BMPs.

#### Construction Site Storm Water Runoff Control –Best Management Practices

##### Construction-I: Ordinance and Standards

##### **CE I-A: Update/Create Ordinance**

The City will update or create a storm water ordinance to address the regulatory programs required under NPDES Phase II, including Requiring implementation of BMP’s for Construction Site Runoff Control. This Ordinance will include provisions to address both erosion/sediment control and construction site materials and wastes such as building materials, concrete truck washouts, chemicals, litter, and sanitary waste. It will address grading and land disturbance of one acre or more. The ordinance will also include financial guarantees and or work stoppage for compliance and site stabilization. The Ordinance will include all applicable items as required by Attachment 4 of the General Permit.

##### **CE I-B: Update Development Standards**

The City will develop and adopt erosion, sediment, and pollution control standards and specifications, as necessary. These standards will be updated based on the latest technology and practices. Alternative and innovative control measures will be identified and evaluated through networking with other programs, product research, literature reviews, and BMP performance studies. These Development Standards will include the items in Attachment 4 of the General Permit.



## **Construction-II: Inspection and Enforcement**

### **CE II-A: Plan Review and Approval**

Plan review will ensure projects adequately address City erosion, sediment, and pollution control requirements through the development approval process. Plan review will take into consideration what potential impacts to water quality the project may have. Plan review will also take into account any public comments that are submitted through the existing public comment period. Projects will be required to adequately address requirements during the CEQA process by reviewing and commenting on items such as Environmental Impact Reports, Declarations of Negative Impact and mitigation monitoring plans and conditioning projects to comply with City and State requirements during the entitlement process. During plan review, the developer or builder will submit a written statement to the City as to the total amount of land disturbance their project will cover, thereby certifying if the disturbance area exceeds the threshold limit of one acre. If one acre or more of land will be disturbed, or if less than one acre but part of a later project that will disturb one acre or more, the City will require the submittal of a Notice of Intent and a Storm Water Pollution Prevention Plan to the State Water Quality Control Board.

### **CE II-B: Inspection/Training**

Inspection and enforcement staff will ensure that control measures and practices are implemented, properly installed, and maintained during the construction of a project. As applicable, inspectors will verify that SWPPPs are on-site at private development construction sites or being implemented for City project construction sites. If the SWPPP is not being followed the Inspector will have the ability to fine or stop work until compliance has been met. To ensure thorough and accurate inspections, City Inspection Staff will undergo ongoing training by attending classes if offered and manuals which show proper installation procedures.

### **CE II-C: Enforcement**

Enforcement shall consist of verbal warnings and fines. If after a verbal warning has been given and no action has been taken by the next re-inspection, a fine will be issued. If after being fined and action has still not been taken, the case will be referred to the California Regional Water Quality Control Board for further action.

### **CE II-D: Record Keeping**

Develop and implement record keeping and data management procedures for evaluation of Construction Element Activities and reporting. Data may be maintained in an electronic format.

## **Construction-III: Outreach and Education**

### **CE III-A: City Staff Outreach**

Coordinate training and technical assistance for staff, including City project managers and development review staff, on proper design, installation, inspection, and maintenance of both on-site and regional control measures and on new technology and practices. Training will ensure that agency staffs are aware of their inspection, maintenance, and plan checking responsibilities. This may be accomplished through workshops, training sessions, staff meetings, user-friendly fact sheets, brochures, and memos.

### **CE III-B: Developer Outreach**

Educate and provide guidance to the development community on local and State requirements and new technology and practices. Outreach may take the form of fact sheets, workshops, preconstruction meetings, City web site, and brochures.

### **Effectiveness Evaluation**

The effectiveness of the Construction Element will be based on whether on-site storm water quality control measures have been designed, constructed, and maintained according to the developed criteria. Inspection records, visual monitoring and enforcement activities will provide verification that the control measures are working.

## **Performance and Evaluation – Construction Site Storm Water Runoff Control**

The following are examples of the type of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in program activity. This information is used by staff for the purpose of planning and scheduling resources required to conduct the program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable or eliminate non-storm water discharges. This information is used to focus and modify activities to maximize environmental benefits. The result of the performance and effectiveness measures will be provided in the annual reports.

### **Construction –I Ordinance and Standards**

#### **CE I-A Update Ordinances**

- Review of existing ordinances (P)
- Creation of new ordinances (P)

#### **CE I-B Update Development Standards**

- Review of existing development standards (P)
- Creation of new construction development standards (P)

### **Construction –II Inspection and Enforcement**

#### **CE II-A Plan Review and Approval**

- Number of plan reviews (P)
- Number of new BMP's incorporated into development projects (P,E)
- Number of projects conditioned(P)

#### **CE II-B Inspection**

- Number of inspections performed (P, E)
- Number of enforcement actions taken (P,E)

#### **CE II-C Enforcement**

- Number of verbal warnings (P,E)
- Number of fines (P,E)
- Number of cases referred to California Regional Water Quality Control Board

#### **CE II-D Record Keeping**

- Development of record keeping management procedure (P, E)
- Annual analysis of data for types, frequencies, and locations and updating of database (P, E)

### **Construction –III Outreach and Education**

#### **CE III-A/B Developer/City Assistance**

- Types and number of outreach material (P)
- Number of workshops and workshop attendance (P)
- Workshop evaluations (E)
- Feedback from City Staff(E)

= Year Implemented
  = Ongoing Update

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
<b>Construction Site Storm Water Runoff Control</b>							
<b>Construction-I: Ordinance and Standards</b>							
CE I-A: Update Ordinances	<ul style="list-style-type: none"> <li>Review existing ordinances and determine where changes/additions need to be made</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Create ordinance to include construction site runoff control including erosion/sediment control and construction site materials and wastes controls</li> </ul>						ADPW
CE I-B: Update Development Standards	<ul style="list-style-type: none"> <li>Review existing construction development standards and determine where changes/additions are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Revise development standards to include construction related erosion, sediment and pollution control BMP's</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement design standards as indicated in Attachment 4 of the General Permit</li> </ul>						ADPW
<b>Construction-II: Inspection and Enforcement</b>							
CE II-A Plan Review and Approval	<ul style="list-style-type: none"> <li>Require certification of land disturbance of project</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Review and ensure that improvement plans to meet City Development Standards</li> </ul>						ADPW
CE II-B Inspection/ Training	<ul style="list-style-type: none"> <li>Inspect construction sites for compliance with the approved SWPPP's and inspectors trained in proper installation of BMP's</li> </ul>						ADPW
CE II-C Enforcement	<ul style="list-style-type: none"> <li>Begin enforcement of SWPPP's</li> </ul>						ADPW
CE II-D Record Keeping	<ul style="list-style-type: none"> <li>Develop Record keeping and data management procedure for evaluating construction element activities and reporting</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement Record Keeping</li> </ul>						ADPW
<b>Construction-III: Outreach and Education</b>							
CE III-A Developer Assistance	<ul style="list-style-type: none"> <li>Keep developers informed about technical resources, policies, requirements, City design standards, and seminars by either newsletters, fact sheets or the city website or at City counter</li> </ul>						ADPW
CE III-B City Staff Assistance	<ul style="list-style-type: none"> <li>Keep City Staff up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, and memos</li> </ul>						ADPW

#### **4-6 Post-Construction Storm Water Management in New Development and Redevelopment Element**

Post-construction storm water management in areas undergoing new development or significant redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving water bodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management.

There are generally two forms of substantial impacts from post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil, grease, pesticides, heavy metals, and nutrients. These pollutants often become suspended in runoff and are carried to receiving waters such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impacts occurs by increasing the quantity of water delivered to the water body during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank scouring and downstream flooding, which often leads to a loss of aquatic life and damage to property.

The City of Chico will develop and implement strategies to include a combination of structural and/or non-structural BMPs appropriate for the community. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law, and ensure adequate long-term operation and maintenance of BMPs. The Program calls for the implementation of planning procedures and enforcement controls to reduce the discharge of pollutants after construction is complete from areas of new development and redevelopment that disturbs one acre or more of land (including projects less than one acre that are part of a larger common plan).

#### **Post Construction Storm Water Management - Best Management Practices**

##### **Post Construction-I: Regulatory Mechanism**

###### **PC I-A: Regulatory Mechanism**

The City of Chico will establish an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls. New developments and re-developments that disturb one acre or more (including projects less than one acre that are part of a larger common plan) will be required to provide nonstructural and or structural BMPs.

###### **PC I-B: Review and Approval Procedures**

The City currently requires new commercial developments, new residential developments, and any construction that increases runoff to incorporate water quality facilities in accordance with current design standards. The Design standards will be updated to reflect those items as indicated in Attachment 4 of the General Permit. The City requires all developments to submit drainage studies that assure local numeric design standards are met. Such studies include BMP criteria in addition to flood control criteria. The City conditions projects to comply with post-construction requirements during the entitlement process. The City utilizes the development approval process (i.e., plan check and inspection process) or municipal procedures (i.e., City project managers) to ensure projects adequately incorporate and construct on-site control measures that meet design standards. Inspection staff will be trained on Attachment 4 to ensure that on-site control measures are properly installed.

##### **Post Construction-II: Design Criteria and Standards (BMPs)**

The City will review and or create an ordinance or other regulatory mechanism to require the use of appropriate non-structural and structural BMPs. The design criteria and standards will be provided by reference to existing criteria manuals. These standards will include traditional methods such as infiltration systems and sediment basins, or may use appropriate non-traditional methods. Runoff problems will be addressed effectively with sound procedures with existing and new technologies, as they become available.

### **PC II-A: Update Standards**

The City of Chico in accordance of Attachment 4 of the General permit will develop and implement Design Standards as indicated in Attachment 4. Projects subject to the new design standards will be:

- Single-family Hillside Residences
- 100,000 Square Foot Commercial Developments
- Automotive Repair Shops
- Restaurants
- Home Subdivisions with 10 or more housing units
- Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed storm water runoff
- Retail Gasoline Outlets

These design standards will be adopted and in effect by year 06/07 (see Appendix B for copy of Attachment 4).

### **PC II-B: Non-Structural BMP Practices**

These Practices are intended to prevent or control the sources of pollutants. These can include guidelines for the proper disposal of household waste and toxins, proper use of pesticides, herbicides, and fertilizer, good housekeeping and preventative maintenance, and public education and outreach.

### **PC II-C: Structural BMP Practices**

These practices are intended to reduce the amount of pollutants that enter the waterways. They include:

Storage Practices – Storage or detention BMP's control storm water by gathering runoff in wet ponds, dry basins, or multi-chamber catch basins and slowly releasing it to receiving waters or drainage systems.

These practices control storm water volume and settle out particulates for pollution removal.

Infiltration Practices – Infiltration BMP's are designed to facilitate the percolation of runoff through the soil to groundwater, thereby reducing both storm water quantity and mobilization of pollutants.

Examples are infiltration basins/trenches and porous pavement.

Vegetative Practices – Vegetative BMP's are landscaped features that, with optimal design and good soil conditions, enhance pollutant removal, maintain/improve natural site hydrology, promote healthier habitats, and increase aesthetic appeal.

### **Post Construction-III: Monitoring Compliance during Construction**

#### **PC III-A: Construction Inspection**

The City will develop a procedure to determine if the BMP's required are being installed according to specifications. This will be developed in conjunction with the construction program. Ordinances or other mechanisms will allow measures to be taken to ensure the BMP's are installed correctly, such as not to release development bonds until the proper BMP's are in place, operating and maintained.

### **Post Construction-IV: Ensure Adequate Long Term Operation and Maintenance of BMPs**

The City of Chico will ensure the adequate long-term operation and maintenance of Post Construction BMPs. BMPs must be maintained to operate properly. The responsibility for operation and maintenance of structural controls will remain with the private property owner if located on private property and with the City if located on City property.

For residential areas, the land area in subdivision where a BMP is located is usually granted to the City. The City requires that the subdivision create a maintenance district to pay for the operation and maintenance of the water quality facilities.

For commercial developments, such as a shopping mall, a relatively large area of land is involved that would be developed by one individual (or corporation), and subsequently sold or leased to relatively few tenants or property

owners. It is likely that this land would be built at one time with one or two structural BMPs comprising a system for the entire site. Individual lots for industrial or commercial use are required to install on-site BMPs for each individual lot at the time of development. For these properties, the requirements for operation and maintenance of on-site BMPs will be the responsibility of the property owner. The City will require property owners to comply with the onsite inspections as in accordance with Attachment 4 of the General Permit.

#### **PC IV-A: Monitoring Long-Term Compliance**

In order to ensure adequate long-term operation and maintenance of BMPs, inspection and enforcement programs are required. The elements of the programs will include the following:

- a. The City will develop a database of all new post-construction BMPs in its jurisdiction. In addition to being an important tool for other elements of the Post-Construction minimum measure, such as inspections and enforcement, the database could be used for mailings to remind BMP owners to perform necessary maintenance.
- b. The Post-Construction Inspection Program is a continuation of the Construction Program and contains the same program elements. A standard will be developed for performing inspections. The program will include the following:

Inspections – The City will create an ordinance or other procedure for requiring annual inspection of BMP’s. City Staff will inspect City facilities. Inspection of BMP’s on private property will be the responsibility of the property owner.

Complaint Response Inspections – The City will have the ability to respond to third party concerns regarding malfunctioning or poorly maintained BMP’s. This will include a point of contact, response protocol, and site review as appropriate. A suitable level of follow-up and enforcement will be included when deficiencies are discovered.

- c. Failure to Maintain BMPs - It is important to ensure that the BMPs implemented are maintained. It is also necessary to determine the cause of any noncompliance. Corrective actions include the following:
  - Document the need for maintenance. Provide time for the developer/property owner to address the concerns. A follow-up inspection will need to be conducted.
  - If the developer/property owner fails to take the necessary measures, meet with the developer/property owner to discuss the necessary measures and time frames for addressing the problems.
  - If actions are not taken in the specified time frame, begin enforcement procedures.
- d. Enforcement Program - An Enforcement Program will be implemented. The program will address appropriate responses to common noncompliance issues with developers/property owners, such as failure to maintain BMPs. Several options for formal action are available. They include:
  - Verbal warning to the developer/property owner
  - Letter of noncompliance
  - Notice of violation and order
  - Charge back to contractor for work completed by the City
  - Municipal summons

#### **Post Construction-V: Technical Assistance**

##### **PC V-A: Developer Assistance**

Conduct outreach to the development community to provide information and serve as a technical resource on policies, requirements, and new technology and practices. This will be accomplished through developer input of new City design standards, notifying the developers of upcoming seminars, newsletters, or user-friendly fact sheets and Web sites.

### **PC V-B: City Staff Assistance**

Coordinate training and technical assistance for staff, including City project managers and development review staff, on proper design, installation, inspection, and maintenance of both on-site and regional control measures and on new technology and practices. Training will ensure that agency staffs are aware of their responsibilities. This may be accomplished through workshops, training sessions, staff meetings, user-friendly fact sheets, brochures, and memos.

### **PC V-C: BMP Research**

Identify and evaluate alternative and innovative control measures through networking with other programs, product research, literature reviews, and BMP performance studies.

### **Effectiveness Evaluation**

The effectiveness of the New Development Element will be based on whether on-site and regional storm water quality control measures have been designed, constructed, and maintained according to the developed criteria. Maintenance records, inspection records, and visual monitoring will provide verification that the control measures are working.

In addition to collecting and evaluating data on control measures that have been installed, literature reviews and special studies on the effectiveness and maintenance requirements of specific control measures will be conducted as needed. The City of Chico Area Storm Water Permittees (Permittees), other public agencies, environmental groups, manufacturers, or property owners may conduct special studies. Information from the special studies and literature reviews will be used to develop and revise selection requirements, design criteria, and maintenance protocols.

### **Performance and Effectiveness Measures**

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. Staff uses this information for the purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the MEP or eliminate non-storm water discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Reports.

### **Post Construction-I: Regulatory Mechanism**

- Number of projects conditioned (P)
- Number of projects constructed or approved (P)
- Number of inspections and maintenance activities performed (P)
- Number of and type of enforcement actions taken (P)
- Training of Staff (P)

### **Post Construction-II: Design Criteria and Standards**

- Number of new BMP designs incorporated into new development projects (P)
- Number of hits to Web site (P)
- Results of BMP performance studies (E)

### **Post Construction-III: Monitoring During Construction**

- Development of inspection procedure (P)
- Number of inspections (P)

**Post Construction-IV: Long Term Maintenance**

- Number of new BMP's mapped
- Number of non-compliant violations

**Post Construction-V: Technical Assistance**

- Type and number of outreach materials (P)
- Number of workshops and workshop attendance (P)
- Workshop evaluations (E)
- Feedback from municipal staff (E)

**Measurable Goals**

The measurable goals, as well as the BMPs, will reflect the needs and characteristics of the City of Chico and the area served by the MS4. The City of Chico's approach for this minimum measure will include the following goals:

	= Year Implemented		= Ongoing Update
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Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
<b>Post-Construction Storm Water Management In New Development and Redevelopment Element</b>							
<b>Post Construction-I: Regulatory Mechanism</b>							
PC I-A: Regulatory Mechanism	<ul style="list-style-type: none"> <li>• Review current ordinance/policies requiring implementation of post construction storm water runoff controls and determine if changes/additions are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Changes/additions to ordinance/policies made and in place</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Inspection and enforcement procedures for Attachment 4 in place</li> </ul>						ADPW
PC I-B: Review and Approval Procedures	<ul style="list-style-type: none"> <li>• Continue to require post construction BMP's for new development or redevelopment that disturb one acre or more of land</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Train plan reviewers on Attachment 4 requirements</li> </ul>						ADPW
<b>Post Construction -II: Design Criteria and Standards (BMP's)</b>							
PC II-A Update Standards In accordance with Attachment 4 of the General Permit	<ul style="list-style-type: none"> <li>• Review current City design standards</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Determine what changes/additions to Design standards are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Meet with each City Department affected by changes to Design Standards and gather input on changes/additions</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Implement changes/additions to design standards</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>• Provide City staff with training on Attachment 4</li> </ul>						ADPW
<b>Post Construction-III Monitoring Compliance During Construction</b>							
PC III-A Construction Inspection	<ul style="list-style-type: none"> <li>• Continue to inspect construction of water quality facilities to ensure they are installed according to specifications</li> </ul>						ADPW



Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Post-Construction Storm Water Management In New Development and Redevelopment Element							
Post Construction-IV Ensure Adequate Long Term Operation and Maintenance of BMP's							
PC IV-A Monitoring Long Term Compliance	<ul style="list-style-type: none"> <li>Develop a GIS database to map location and type of structural BMP's</li> <li>Create ordinance/policy to require annual inspections of BMP's on private property</li> <li>Develop Enforcement procedure for non compliance with inspections/repairs</li> </ul>						ADPW
							ADPW
							ADPW
Post Construction-V Technical Assistance							
PC V-A Developer Assistance	<ul style="list-style-type: none"> <li>Keep Developers/contractors up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, memos, and through City Counter Staff</li> </ul>						ADPW
PC V-B City Staff Assistance	<ul style="list-style-type: none"> <li>Keep City Staff up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, and memos</li> </ul>						ADPW
PC V-C BMP Research	<ul style="list-style-type: none"> <li>Research alternate and innovative BMP's through product research, literature reviews, and BMP performance studies</li> </ul>						ADPW

#### 4-7 Pollution Prevention/Good Housekeeping for Municipal Operations Element

The City of Chico conducts numerous municipal operational and maintenance activities, some of which have the potential to result in discharges of pollutants in runoff or be sources of non-storm water discharges. The goal of the Municipal Operations Element is to reduce these discharges of pollutants in runoff and control non-storm water discharges.

The Municipal Operations Element evaluates activities to identify those that could be significant sources of pollutants in runoff, develops appropriate measures to reduce the discharge of pollutants from these sources to the maximum extent practicable (MEP), and identifies and controls discharges of non-storm water from facilities owned or operated by the City. This Program Element also conducts operation and maintenance activities that remove pollutants. City operations and maintenance activities provide for the collection and removal of significant quantities of pollutants from storm water runoff. The City's street sweeping program also will remove sediment and associated pollutants from roadways and gutters that would otherwise enter the storm drains. Furthermore, planning efforts provide the opportunity to incorporate water quality features in the design of regional detention basins to provide treatment and removal of pollutants as well as flood and drainage control.

Proposed activities include continued efforts to identify and improve municipal operations that are potentially significant sources of pollutants. Outreach and training are essential to ensure that municipal employees are aware of and able to implement the Municipal Operations Element. Employee education will be conducted. Areas of focus include: (1) equipment maintenance and washing; (2) pesticide application practices; and (3) waste storage and disposal. Development of fact sheets, performance standards, and procedure manuals for common municipal activities will help ensure that pollutant prevention practices are followed. Street sweeping and catch basin cleaning activities will be evaluated to determine effectiveness, and alternatives will be considered to improve pollutant removal. Proposed activities will help protect and improve the habitat of urban creeks.

## **Municipal Operations and Facilities Element Activities - Best Management Practices**

### **Municipal-I: Technical Assistance**

#### **ME I-A: Municipal Facility SWPPPs**

Conduct inspections and prepare Storm Water Pollution Prevention Plans (SWPPPs) and Best Management Practices (BMPs) for City facilities. Provide follow-up consultation as necessary.

#### **ME I-B: Municipal Activity Education**

Educate City departments on activities that may contribute to storm water pollution.

#### **ME I-C: New Facility BMPs**

Review design plans for proposed municipal facilities and provide guidance on pollutant and non-storm water discharge control measures.

#### **ME I-D: Non-Storm Water Discharges**

Discharges of non-storm water from City facilities will be identified and characterized. Control measures to eliminate or reduce pollutants will be described and implemented. If necessary, obtain Regional Water Quality Control Board approval for authorized discharges.

### **Municipal-II: Pollutant Removal Activities**

#### **ME II-A: Street Sweeping**

Continue City street sweeping program and evaluate alternative equipment and sweeping schedules to optimize pollutant removal.

#### **ME II-B: Drainage System Maintenance**

Continue maintenance activities that remove accumulated sediment and floatables from storm drainage facilities.

#### **ME II-C: Structural Control Operation and Maintenance**

Operate and maintain structural devices such as settling/treatment facilities at detention basins and low-flow control measures to ensure pollutant removal.

### **Municipal-III: Employee Training Program**

#### **ME III-A: Employee Training Program**

Conduct specific training sessions for City employees to provide Storm Water Management Program (Program) information on appropriate municipal control measures. Provide education to City personnel about the importance of water quality through training brochures and newsletters.

#### **ME III-B: Employee Feedback Program**

Gather information on City activities and suggestions for improvement of Municipal Operations Element activities.

### **Effectiveness Evaluation**

The effectiveness of the Municipal Operations Element is dependent on adequate training, resources, and staff to ensure that City operations and facilities are reducing storm water pollution and controlling non-storm water discharges. Assessments will include inspections, review of feedback from County staff, and public comments.

Public comments may be useful indicators of the consistency and fairness of storm water requirements being established for businesses and residents.

**Performance and Effectiveness Measures**

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a program activity. This information is used by staff for purposes of planning and scheduling resources required to conduct the program. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Reports.

**Municipal-I: Technical Assistance**

- Number of SWPPPs and BMPs prepared for City facilities (P)
- Revisions to SWPPPs and BMPs prepared for City facilities (E)
- Number of City construction projects with NOI and SWPPPs (P)
- Number of site inspections of City facilities to ensure that appropriate control measures are implemented (P)
- Number of municipal facility plans reviewed and designed to incorporate storm water control measures (P)
- Literature reviews on the effectiveness and maintenance requirements of specific control measures (E)
- Feedback from staff on SWPPPs and BMPs (E)
- Actions taken to correct problems (E)

**Municipal-II: Pollutant Removal Activities**

- Amount of street sweeping conducted (P)
- Number of facilities receiving storm drain maintenance (P)
- Number of structural devices operated and maintained for settling/treatment (P)

**Municipal-III: Employee Training Program**

- Number of training sessions (P)
- Feedback from training (E)
- Number of fact sheets, brochures, procedure manuals, and other outreach material to describe BMPs for municipal activities (P, E)
- Feedback from City staff for improvement to the Municipal Operations Element activities (E)

**Measurable Goals**

Measurable goals are meant to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should consider the needs and characteristics of the operator and the area served by its MS4. The measurable goals should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure. An integrated approach for this minimum control measure could include activities such as the following:

	= Year Implemented		= Ongoing Update
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Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Pollution Prevention/Good Housekeeping for Municipal Operations							
Municipal –1: Technical Assistance							
ME I-A	• Develop list of all City facilities						ADPW
Municipal Facility SWPPP's	• Conduct review of all City facilities and determine which ones need to have SWPPP's developed						ADPW
	• Develop SWPPP's for City facilities						ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Pollution Prevention/Good Housekeeping for Municipal Operations							
Municipal – I: Technical Assistance							
ME I-B Municipal Activity Education	<ul style="list-style-type: none"> <li>Review City facilities and develop a list of activities that may contribute to storm water pollution</li> <li>Develop one brochure for each type of activity identified</li> <li>Distribute brochure to 100% of City facilities &amp; make available on City website</li> </ul>						ADPW
							ADPW
							ADPW
ME I-C New Facility BMP's	<ul style="list-style-type: none"> <li>Require storm water BMP's on new City facilities</li> </ul>						ADPW
ME I-D Non-Storm Water Discharges	<ul style="list-style-type: none"> <li>Identify and characterize non-storm water discharges</li> <li>Obtain Regional Water Quality Control Board approval for non-storm water discharges when recognized</li> </ul>						ADPW
							ADPW
Municipal – II Pollutant Removal Activities							
ME II-A Street Sweeping	<ul style="list-style-type: none"> <li>Continue the City's street sweeping program and document number of miles swept</li> </ul>						ADPW-MSC
ME II-B Drainage System Maintenance	<ul style="list-style-type: none"> <li>Continue storm drain maintenance activities and document activities</li> </ul>						ADPW-MSC
ME II-C Structural Control Operation & Maintenance	<ul style="list-style-type: none"> <li>Continue to maintain City owned water quality facilities and document activities</li> </ul>						ADPW-MSC
Municipal – III Employee Training Program							
ME III-A Employee Training Program	<ul style="list-style-type: none"> <li>Research the availability of training material for reducing pollution for activities such as park and open space maintenance, fleet building maintenance, and new construction and land disturbances</li> <li>Conduct one training sessions per year for each activity</li> </ul>						ADPW
							ADPW
ME III-B Employee Feedback Program	<ul style="list-style-type: none"> <li>At each training session provide City staff the opportunity to make suggestions on how to reduce pollution for the activities they perform</li> </ul>						ADPW

## 5. PROGRAM EVALUATION ACTIVITIES

### 5-1 Introduction

Program evaluation is an important part of the interactive process for improvement of the City of Chico Storm Water Management Program (Program). Selection of appropriate activities and Best Management Practices (BMPs) to reduce pollutants to the maximum extent practicable (MEP) includes evaluation of pollutant removal capabilities, compatibility with environmental regulations, applicability for the City, and cost effectiveness. The successes or problems in other California locales, including public acceptance, will also be reviewed. Regular evaluations are required and are critical for a variety of reasons:

- Obtain feedback that will allow the City to continually improve the Program.
- Measure whether Program activities are making progress toward reducing pollution in storm water discharges to the MEP and protecting the beneficial uses of local receiving waters.
- Provide information useful to the other permit holders within the Chico Urban Area for modifying joint efforts and evaluating the area-wide effectiveness of the City’s storm water management activities.
- Ensure compliance with the requirements of the City’s MS4 Permit.
- Demonstrate that an appropriate level of effort is being expended to implement pollution prevention activities to the MEP.
- Verify that public funds are being utilized appropriately by targeting limited resources for the most significant local environmental problems.

Evaluation activities will always be a part of the City’s Program. The City will be evaluating Program activities consistently over the years. Evaluations will generally be done as state law defines beneficial uses of California’s waters that may be protected against quality degradation to include (and not be limited to) “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050(f)).

### 5-2 Evaluation Strategy

The City recognizes that the ultimate goals of the Program are to reduce storm water pollution to the MEP, eliminate prohibited non-storm water discharges, and protect beneficial uses of local receiving waters. However, evaluating whether the Program is accomplishing these goals presents a difficult task. At this point in time, there are no practicable measurements that can directly correlate Program accomplishments with water quality in the receiving waters. Several factors preclude a simple evaluation of Program effectiveness. These factors include the following:

- Urban runoff pollution comes from a wide array of diffuse sources in the urban environment.
- The solutions or BMPs used to control storm water pollution are diverse in nature; some act to prevent pollution (e.g., education) and others act to remove pollutants that have already entered the runoff (e.g., detention basins).

It generally takes years to see the impacts of BMPs. For example, many years of implementing recycling programs were necessary before the public began to change its behavior.

To meet this challenge, the City has established specific objectives for the overall Program and Program Elements to make progress toward reducing storm water pollution, eliminating prohibited non-storm water discharges, and protecting receiving waters. On a regular basis, the City will evaluate the ability of Program activities to achieve these standards and reach Program goals by using both performance measures and effectiveness measures:

- **Performance measures** are designed to measure level of effort such as the number of staff assigned to the Program, number of public events attended, or number of people reached through media campaigns.
- **Effectiveness measures** are intended to measure the degree to which a particular effort is successful. For example, the percentage increase in public awareness is measured by public opinion surveys. In some cases, effectiveness measures can be used to directly assess an activity’s environmental benefit. For example, documenting the maintenance and cleaning of catch basins each year shows a measure of pollutants that would have otherwise been discharged downstream to a local creek.

### 5-3 Program Performance and Effectiveness Evaluation

The City plans to evaluate the Program on three levels:

- Overall Program
- Program Element
- Activity/BMP

Overall Program evaluation includes assessments of Program progress, adequacy of resources to conduct the Program. Program Element evaluation provides consideration of the combined effectiveness of the various activities of each Program Element. Activity/BMP evaluation includes reporting and assessments specific to the

Program Element activities and BMPs. Special studies may also be conducted on BMPs, generally as joint efforts of the Permittees, to provide information on pollutant removal capabilities, experience of other storm water management programs, and local applicability in the City, cost effectiveness, and maintenance requirements.

#### **5-4 Reporting Performance and Effectiveness Evaluations**

The Annual Reports submitted to the Regional Water Quality Control Board by the City as required in the permit will describe the goals, activities, and performance/effectiveness measures proposed for the upcoming permit year. They also will document the City's accomplishments in the previous permit year and evaluate progress toward reaching the goals in completing the proposed activities. To provide information for these reports, records and data from various internal agency departments and divisions are compiled and analyzed. At the end of each permit year, the compiled data from that year will be reviewed and presented to demonstrate Program performance. It is also anticipated that a more comprehensive evaluation of each Program Element will be performed at least once during the permit term.

#### **5-5 Continued Program Improvements**

On a regular basis, the City will network with other agencies and groups in an effort to stay current about national and statewide storm water efforts and to obtain ideas for continued improvement of the Program. The City, along with the other permit holders within the Urban Area, will meet regularly on various joint efforts and to share information on activities. Refinement of evaluation tools will be accomplished over time using local program experience in addition to that of other agencies and groups including:

- Regulatory agencies such as the State Water Resources Control Board, Regional Board and U.S. Environmental Protection Agency
- Other storm water management programs
- California Storm Water Quality Association
- National organizations
- The local community

The various types of data provided by these groups include results of BMP effectiveness studies, public awareness surveys, and program evaluations. The evaluation process will allow the City to benefit from experience and use that experience to improve the Program by modifying activities that did not work well, enhancing those that have proven to be effective, and selecting activities and BMPs to address new areas.

## **APPENDICES**

### **Appendix A – City of Chico MS4 NPDES Storm Water Permit Application (N.O.I.)**

### **Appendix B – City of Chico Storm Water Ordinances**

Appendix B will provide copies of the City's Storm Water and Urban Runoff Pollution Control Ordinances, which are to be developed during the permit term, and the City's Storm Water and Sediment and Erosion Control Ordinance, which also is to be developed during the permit term. Any future revisions to these ordinances or additional storm water related ordinances will be inserted into this Appendix.

### **Appendix C - Agreements**

Appendix C will include agreements that define and outline the specific responsibilities of each participating agency. Any new or revised agreements will be added to Appendix C upon their completion.

### **Appendix D – Program Element Accomplishments, Annual Reports**

Annual Reports to be submitted to the Regional Water Quality Control Board will be placed here.

### **Appendix E – Program Tasks and Time Lines**

**APPENDIX A**

**CITY OF CHICO MS4 NPDES STORM WATER PERMIT APPLICATION (N.O.I.)**



**APPENDIX B**

**CITY OF CHICO STORM WATER ORDINANCES**

**APPENDIX C**

**AGREEMENTS**

**APPENDIX D**

**PROGRAM ELEMENT ACCOMPLISHMENTS, ANNUAL REPORTS**

**APPENDIX E**

**PROGRAM TASKS AND TIME LINES**

	= Year Implemented		= Ongoing Update
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Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		03/04	04/05	05/06	06/07	07/08	
Public Education and Outreach Element Activities							
Public Education -I: General Public and Target Sector Outreach							
PE I-A Storm Drain Inlet Stenciling	• Require 100% of new storm drain inlets to be stenciled.						ADPW
	• Stencil 20% of existing storm drain inlets per year						ADPW
	• Develop maintenance program and inspect 10% of storm drain inlets per year						ADPW
PE I-B Clean Water Business Partners	• Develop list of types of businesses to be targeted						ADPW
	• Develop a mailing list of businesses to be targeted						ADPW
	• Develop one brochure for each type of Business identified						ADPW
	• Distribute brochure to 100% of businesses listed & make available on City website						ADPW
PE 1-C Community Events	• Develop a list of local environmental and watershed groups for possible partnering						ADPW
	• Contact Local Environmental and watershed groups about partnering for community events						ADPW
	• Develop at least one locally appropriate brochure for handout at community events and make available on the City web site and then one each year thereafter until three per year is reached						ADPW
	• Attend at least one community event per year						ADPW
PE 1-D Storm Water Website	• Create initial City Storm water website						ADPW
	• Continue to modify, update, and add new features to the website						ADPW
PE 1-E Media Campaigns	• Research cost for newspaper ads, radio spots, TV spots, and billboards						ADPW
	• Develop a list of potential community groups, businesses, and other agencies for partnering with and cost sharing						ADPW
	• Research Partnering and cost sharing opportunities with community groups, businesses, and other agencies & develop a media campaign.						ADPW
	• At a minimum implement two storm water message newspaper ads per year						ADPW
	• Mail one brochure with storm water message with water bill at least once per year						ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts.
		3/04	4/05	5/06	6/07	7/08	
Public Education – I: General Public and Target Sector Outreach							
PE I-F Pet Waste Control	<ul style="list-style-type: none"> <li>Continue to post pet waste information and collection bag stations at public trails and parks at a rate of at least one per year</li> </ul>						Park Director (P.D.)
PE I-G Public Knowledge Measurement Surveys	<ul style="list-style-type: none"> <li>Research existing public knowledge surveys created by other agencies</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Develop a locally appropriate public survey</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Distribute public survey at community events collect them and analyze the results at least once a year at the community events</li> </ul>						ADPW
PE 1-H Water-Wise Pest Control Program	<ul style="list-style-type: none"> <li>Develop list of local nurseries, landscapers, and pest control operators</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Develop and distribute at least one brochure for each type of business</li> </ul>						ADPW
Public Education – II: School Outreach							
PE II-A Storm Water Classroom Presentation	<ul style="list-style-type: none"> <li>Investigate and determine what classroom presentations are currently being done by the School District or and or other Groups</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Review current presentation for appropriate content and frequency of message</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Incorporate existing classroom presentations, if necessary into City program or vice versa</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement program into one K-6<sup>th</sup> grade class per school once per year</li> </ul>						ADPW
Public Education – III: Public Agency Outreach							
PE III-A City Officials	<ul style="list-style-type: none"> <li>Provide information to City Council regarding upcoming community events and encourage Council participation starting with one event in 04/05 up to three events per year</li> </ul>						ADPW
PE III-B Annual City Council Update	<ul style="list-style-type: none"> <li>Provide City Council with copies of the annual report as they are submitted to the RWQCB once per year</li> </ul>						ADPW
PE III-C City Department Partnerships	<ul style="list-style-type: none"> <li>Provide information to Department Heads regarding upcoming community events and encourage staff participation at the three events per year</li> </ul>						ADPW
Public Education – IV: Statewide and Regional Outreach Activities							
PE IV-A Storm Water Quality Task Force	<ul style="list-style-type: none"> <li>Continue participation in the California Storm Water Task Force, at least two meetings per year</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Continue to work with other Chico Area NPDES II permittees. Attempt to set up regular meetings with a minimum of two meeting per year</li> </ul>						ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		3/04	04/05	05/06	6/07	7/08	
<b>Public Participation/Involvement</b>							
<b>Public Participation/Involvement-I:</b>							
PP I-A Public Meetings	<ul style="list-style-type: none"> <li>Information about programs will be discussed at public meetings and or made available on the City's web site to encourage citizen participation and allow input to all programs being developed as part of this SWMP in addition to the SWMP itself.</li> </ul>						ADPW
PP I-B Community Water Body Cleanups	<ul style="list-style-type: none"> <li>Continue to partner with local groups and sponsor two creek cleanup events per year</li> </ul>						ADPW
<b>Illicit Discharge Detection and Elimination Element</b>							
<b>Illicit Discharge -I: Storm Water Ordinance Enforcement</b>							
ID I-A Create Ordinance	<ul style="list-style-type: none"> <li>Review current ordinances and determine where changes/additions are necessary</li> <li>Changes/additions or creation made to the ordinances and get approved by Council</li> <li>Develop and implement an enforcement procedure and guidelines</li> </ul>						ADPW
							ADPW
							ADPW
<b>Illicit Discharge -II: Plan Development</b>							
ID II-A Identify Priority Areas	<ul style="list-style-type: none"> <li>Review storm drain maps and Identify outfalls which include industrial &amp; manufacturing facilities within their tributary areas.</li> <li>During dry weather visually inspect and PH test priority outfalls for illicit discharges and identify them for further investigation and enforcement as necessary</li> <li>Identify non-priority outfalls and visually inspect and PH test for illicit discharges</li> </ul>						ADPW
							ADPW
							ADPW
D II-B Find the Source	<ul style="list-style-type: none"> <li>Trace any illicit discharges identified upstream of initial discovery by visually inspecting manholes and drop inlets until the source is found</li> <li>Make City website available for reporting illicit discharges that will automatically notify storm water personnel</li> <li>Develop a 24-hour telephone procedure for receiving illicit discharge reports</li> </ul>						ADPW
							ADPW
							ADPW
ID II-C Remove/ Correct Illicit Connections	<ul style="list-style-type: none"> <li>Remove identified Illicit discharges pursuant to developed enforcement procedures &amp; guidelines</li> </ul>						ADPW
<b>Illicit Discharge-III: Illicit Discharge Prevention</b>							
ID III-A Storm Drain Stenciling	<ul style="list-style-type: none"> <li>See activities in PE I-A of Public Education and Outreach Activities</li> </ul>						ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		3/04	4/05	5/06	6/07	7/008	
<b>Illicit Discharge-III: Illicit Discharge Prevention</b>							
ID III-B Hazardous Waste Collection	<ul style="list-style-type: none"> <li>Continue to promote the availability of the regional Household Hazardous Waste Collection Facility</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Include one brochure in the water bill once per year promoting the facility</li> </ul>						ADPW
ID III-C Waste oil Collection	<ul style="list-style-type: none"> <li>Continue to promote the availability of the used oil collection Facilities.</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Include one brochure in the water bill once per year promoting the facilities</li> </ul>						ADPW
<b>Illicit Discharge-IV: Storm Drain System Map</b>							
ID IV-A Develop Storm Drain System Map	<ul style="list-style-type: none"> <li>Continue to update the existing storm drain system map to show facilities as they are constructed</li> </ul>						ADPW
<b>Construction Site Storm Water Runoff Control</b>							
<b>Construction-I: Ordinance and Standards</b>							
CE I-A: Update Ordinances	<ul style="list-style-type: none"> <li>Review existing ordinances and determine where changes/additions need to be made</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Create ordinance to include construction site runoff control including erosion/sediment control and construction site materials and wastes controls</li> </ul>						ADPW
CE I-B: Update Development Standards	<ul style="list-style-type: none"> <li>Review existing construction development standards and determine where changes/additions are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Revise development standards to include construction related erosion, sediment and pollution control BMP's</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement design standards s indicated in Attachment 4 of the General Permit</li> </ul>						ADPW
<b>Construction-II: Inspection and Enforcement</b>							
CE II-A Plan Review and Approval	<ul style="list-style-type: none"> <li>Require certification of land disturbance of project</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Review and ensure that improvement plans to meet City Development Standards</li> </ul>						ADPW
CE II-B Inspection/ Training	<ul style="list-style-type: none"> <li>Inspect construction sites for compliance with the approved SWPPP's and inspectors trained in proper installation of BMP's</li> </ul>						ADPW
CE II-C Enforcement	<ul style="list-style-type: none"> <li>Beginning enforcement of SWPPP's</li> </ul>						
CE II-D Record Keeping	<ul style="list-style-type: none"> <li>Develop Record keeping and data management procedure for evaluating construction element activities and reporting</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement Record Keeping</li> </ul>						ADPW

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		3/04	4/05	5/06	6/07	7/08	
<b>Construction-III: Outreach and Education</b>							
CE III-A Developer Assistance	<ul style="list-style-type: none"> <li>Keep developers informed about technical resources, policies, requirements, City design standards, and seminars by either newsletters, fact sheets or the city website or at city counter</li> </ul>						ADPW
CE III-B City Staff Assistance	<ul style="list-style-type: none"> <li>Keep City Staff up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, and memos</li> </ul>						ADPW
<b>Post-Construction Storm Water Management In New Development and Redevelopment Element</b>							
<b>Post Construction-I: Regulatory Mechanism</b>							
PC I-A: Regulatory Mechanism	<ul style="list-style-type: none"> <li>Review current ordinance/policies requiring implementation of post construction storm water runoff controls and determine if changes/additions are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Changes/additions to ordinance/policies made and in place</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Inspection and enforcement procedures for Attachment 4 in place</li> </ul>						ADPW
PC I-B: Review and Approval Procedures	<ul style="list-style-type: none"> <li>Continue to require post construction BMP's for new development or redevelopment that disturb one acre or more of land</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Train plan reviewers on Attachment 4 requirements</li> </ul>						ADPW
<b>Post Construction -II: Design Criteria and Standards (BMP's)</b>							
PC II-A Update Standards In accordance with Attachment 4 of the General Permit	<ul style="list-style-type: none"> <li>Review current City design standards</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Determine what changes/additions to Design standards are required</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Meet with each City Department affected by changes to Design Standards and gather input on changes/additions</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Implement changes/additions to design standards</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Provide city staff with training of Attachment 4</li> </ul>						ADPW
<b>Post Construction-III Monitoring Compliance During Construction</b>							
PC III-A Construction Inspection	<ul style="list-style-type: none"> <li>Continue to inspect construction of water quality facilities to ensure they are installed according to specifications</li> </ul>						ADPW
<b>Post Construction-IV Ensure Adequate Long Term Operation and Maintenance of BMP's</b>							
PC IV-A Monitoring Long Term Compliance	<ul style="list-style-type: none"> <li>Develop a GIS database to map location and type of structural BMP's</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Create ordinance/policy to require annual inspections of BMP's on private property</li> </ul>						ADPW
	<ul style="list-style-type: none"> <li>Develop Enforcement procedure for non compliance with inspections/repairs</li> </ul>						ADPW



Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		3/04	4/05	5/06	6/07	7/08	
<b>Post Construction-V Technical Assistance</b>							
PC V-A Developer Assistance	<ul style="list-style-type: none"> <li>Keep Developers/contractors up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, memos, and through City Counter Staff</li> </ul>						ADPW
PC V-B City Staff Assistance	<ul style="list-style-type: none"> <li>Keep City Staff up to date on proper design installation and inspection of BMP's. This will be accomplished through workshops, training sessions fact sheets, brochures, and memos</li> </ul>						ADPW
PC V-C BMP Research	<ul style="list-style-type: none"> <li>Research alternate and innovative BMP's through product research, literature reviews, and BMP performance studies</li> </ul>						ADPW
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>							
<b>Municipal - I: Technical Assistance</b>							
ME I-A Municipal Facility SWPPP's	<ul style="list-style-type: none"> <li>Develop list of all City facilities</li> <li>Conduct review of all City facilities and determine which ones need to have SWPPP's developed</li> <li>Develop SWPPP's for City facilities</li> </ul>						ADPW
							ADPW
							ADPW
ME I-B Municipal Activity Education	<ul style="list-style-type: none"> <li>Review City facilities and develop a list of activities that may contribute to storm water pollution</li> <li>Develop one brochure for each type of activity identified</li> <li>Distribute brochure to 100% of City facilities &amp; make available on City website</li> </ul>						ADPW
							ADPW
							ADPW
ME I-C New Facility BMP's	<ul style="list-style-type: none"> <li>Require storm water BMP's on new City facilities</li> </ul>						ADPW
ME I-D Non-Storm Water Discharges	<ul style="list-style-type: none"> <li>Identify and characterize non-storm water discharges</li> <li>Obtain Regional Water Quality Control Board approval for non-storm water discharges when recognized</li> </ul>						ADPW
							ADPW
<b>Municipal - II Pollutant Removal Activities</b>							
ME II-A Street Sweeping	<ul style="list-style-type: none"> <li>Continue the City's street sweeping program and document number of miles swept</li> </ul>						ADPW-MS
ME II-B Drainage System Maintenance	<ul style="list-style-type: none"> <li>Continue storm drain maintenance activities and document activities</li> </ul>						ADPW-MS

Activity/BMP	Description	Five Year Implementation Schedule					Responsible Depts
		3/04	4/05	5/06	6/07	7/08	
Municipal – III Employee Training Program							
ME III-A Employee Training Program	<ul style="list-style-type: none"> <li>Research the availability of training material for reducing pollution for activities such as park and open space maintenance, fleet building maintenance, and new construction and land disturbances</li> <li>Conduct one training sessions per year for each activity</li> </ul>						ADPW
							ADPW
ME III-B Employee Feedback Program	<ul style="list-style-type: none"> <li>At each training session provide City staff the opportunity to make suggestions on how to reduce pollution for the activities they perform</li> </ul>						ADPW