BUTTE COUNTY STORM WATER MANAGEMENT PROGRAM

Submitted to:
California Regional Water Quality Control Board
Central Valley Region

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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 Permittee's compliance with the permit requirements, including an accounting of progress made towards each of the Permittee'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.
CASQA	California Stormwater Quality Association
CEQA	California Environmental Quality Act.
CWA	Clean Water Act.
EPA	U.S. Environmental Protection Agency.
HHW	Household Hazardous Waste.
Measurable goals	The County'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 a Municipality or County 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.
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.
SWMP	Storm Water Management Program.
SWPPP	Storm Water Pollution Prevention Plan.

[*] A municipal separate storm sewer system refers to separate systems that transport either sewage or stormwater. Butte County's separate storm sewer system is more commonly referred to as a storm drainage system that utilizes ditches, swales and pipes. Butte County does not have a sewer system that conveys storm water.

1. INTRODUCTION

1-1 *THE PROGRAM*

This document presents Butte County's Storm Water Management Program (Program), which provides Butte County's priorities and activities for the years 2003 through 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. Small Municipal Separate Storm Sewer Systems (MS4) were identified and automatically designated by the United States Environmental Protection Agency pursuant to 40 CFR Section 122.32(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. The program is being managed at the State level by the State Water Resources Control Board under a General Permit from the Environmental Protection Agency (EPA). Butte County is required to operate as a Permittee under the State's General Permit. The County's Program, developed as part of its permit application, and was required by federal law to be submitted by March 10, 2003. Full implementation of the County's Program is required by the end of the first 5-year permit term.

Butte County met with representatives of the State Water Resources Control Board and teleconferenced with the Bureau of the Census on February 5, 2003 to determine a procedure to follow to allow alterations in the permit area boundaries. The Bureau of the Census cited from the Federal Register, Volume 67, No. 51, page 11664, Supplementary Information, "the Census Bureau urges each agency to consider permitting appropriate modifications of the results of implementing the urban and rural criteria specifically for the purposes of its program." Also stated within the Federal Register is that, "it is the agency's responsibility to ensure that the results are appropriate for such use." The specific area of Durham, initially included in the urbanized area map that was developed by the Bureau of the Census, does not apply to the goal of the NPDES Phase II Program, which aims to reduce storm water pollutants from entering a water body of the United States to the maximum extent practicable, as there are no water bodies of the United States in the Durham area to which any storm water runoff pollutants could enter into. Butte County purposed to modify portions of the original permit boundaries to exclude the Durham area. Also, the Western side of the permit area was to coincide with the "Green line", which is a line developed by the County and City of Chico, which delineates future development areas as to keep agricultural land west of this "Greenline" as agricultural and keep all future urban development to the east of this "Greenline". Butte County developed a map that is consistent with the requirements of the Program and purposed this mapped area define the area for coverage under Butte County's Storm Water Management Program. This map is shown as Appendix H. The Regional Water Quality Control Board considered our permit area boundaries and determined that they are acceptable.

Butte County encompasses 1,640 square miles and has a population of 203,171 as of January 2000, based on U.S. census data. Butte County is the most populated county north of Sacramento. The Feather and Sacramento Rivers receive water from the creeks and streams that flow southerly through Butte County on their way to the Delta and San Francisco Bay. These rivers support extensive recreational use and fisheries, including salmon and steelhead migration. These rivers are also a major source of drinking and agricultural water for the State of California. The County operates and maintains storm drainage systems that consist of hundreds of miles of open drainage ditches, pipe, and several detention basins. There are four watersheds within the permit area boundaries for Butte County. They are the Pine Creek / Rock Creek Watershed, the Big Chico Creek Watershed, the Little Chico Creek Watershed, and the Butte Creek Watershed. The County is committed to improving the quality of urban runoff through the development and implementation of a proactive, comprehensive storm water program.

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 and updating this Program.

- **Chapter 2: PROGRAM OVERVIEW**

  This chapter provides an overview of Program direction, organization, and the regulatory background and history.

- **Chapter 3: PROGRAM MANAGEMENT**

  This chapter provides a description of Program strategy, organization, staffing, and funding. It also includes information on the relationship of the County's Program efforts to the activities of other Chico urbanized area permittees, the City of Chico and Chico State University, as well as County agencies and departments.

- **Chapter 4: PROGRAM ELEMENT IMPLEMENTATION**

  This chapter is the heart of Butte County's Storm Water Management Program. A complete description of the following six Program Elements, referred to as minimum measures, are provided: Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control / Post Construction Storm Water Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for (Municipal) County Operations. Element-specific activities, Best Management Practices (BMPs), and effectiveness and performance measures, as well measurable goals are also identified.

- **Chapter 5: PROGRAM EVALUATION ACTIVITIES**

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

- **APPENDICES**

  This section contains eight appendices**:**

  A. Butte County Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit (Notice of Intent);
  B. Departmental Responsibility Flow Chart;
  C. Annual Departmental Reports to be used for compiling annual reports;
  D. Annual County Reports submitted to the RWQCB;
  E. Butte County's Storm Water Ordinances as developed;
  F. Agreements as developed;
  G. Measurable Goals Tables;
  H. Butte County's NPDES Phase II Permit Area Map(s).

1-3 *PROGRAM UPDATE PROCESS*

This Program contains approaches and guidance for activities, Best Management Practices (BMPs), and effectiveness evaluation for the 5-year permit term. The County's approved Program will be in effect until it is replaced or updated. It is foreseen that the Program will be updated annually based upon the evaluation and input process. Numerous work groups will be formed that include managers and staff from the County, City of Chico, and California State University, Chico to develop and administer the elements of this Program. These groups will additionally evaluate the effectiveness of the Program and attempt to update program aspects in a manner that retains a consistent program within the designated area. The annual departmental reports will provide the specific activities and effectiveness evaluations accomplished for each fiscal year, based on the direction and targets of the Program. In addition, input from regulators and the public is important to the process of developing an effective Program during the initial permit term.

Activities to obtain input include:

- Conducting meetings with the RWQCB, County departments, City officials and other interested parties;
- Announcing availability of the Program;
- Posting relevant information and the Program on the County's web site;
- Conducting public meetings and addressing public comments in the Program.

The intent of the County is to have a current, relevant, and dynamic Program, one in which updates occur as needed to reflect the most recent information, needs, and effectiveness measures. The Program will continue to evolve and improve through evaluations and feedback from various sources and activities, as described above. Input from regulators and the public throughout the permit term will be used to determine specific modifications to the Program. Program effectiveness evaluations and Annual Reports will also used to facilitate review and modifications to the Program to adjust to future needs. As a living document, revisions may be made directly to the Program, subject to Regional Water Quality Control Board approval.

2. PROGRAM OVERVIEW

2-1 *PROGRAM IMPLEMENTATION OVERVIEW*

The Butte County 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, also referred to as the six minimum measures, are listed below, and are more specifically described in Chapter 4 of this Program:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for (Municipal) County Operations and Facilities

The Program also includes descriptions of:

- Best Management Practices to address specific activities identified in the regulations, such as illicit discharges;
- How implementation of Program activities will be prioritized;
- Staff and equipment available and required to implement a Program activity.

Butte County recognizes the importance of effective storm water management and has utilized resources to develop and implement the Program. It is foreseen that the Public Works Land Development Division will coordinate management and administration of the County's Program. The Department of Public Works and the Development Services Department are responsible for planning, inspection, enforcement, and permit clearances for construction projects within the County. The Department of Public Works is responsible for the County's storm water drainage conveyance system. Drainage facilities include gutters, swales, ditches, culverts, storm drain inlets and outfalls, catch basins, storm drainage pipes, canals, detention basins, and pump stations. Other departments are also involved as reflected in Appendix B, which displays in a flow chart format all the County departments that will have duties within the Program.

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 and operators of small construction sites in urban areas. In California, the Federal NPDES permitting program is implemented through the Porter-Cologne Act, a part of the California Water Code, by the State Water Resources Control Board and the Regional Water Quality Control Boards.

The EPA promulgated the storm water regulations on November 16, 1990. These regulations, which were to be implemented in two phases, contained permitting application requirements and a schedule for phased implementation and permit issuance for municipalities and industries.

Municipalities to be addressed in Phase I were defined in terms of size: (1) large for urbanized areas with populations greater than 250,000; (2) medium for urbanized areas with populations greater than 100,000; and (3) small for other municipalities with populations less than 100,000 that are designated by the permitting authority.

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

3. PROGRAM MANAGEMENT

3-1 *INTRODUCTION*

This chapter presents the following components related to management of the Program: Program strategy; Program priorities and management activities; legal authority; Program organization; annual planning and reporting activities; and budget/staff resources. Joint activities in which Butte County will implement portions of the Program through coordination with other programs and agencies are also described.

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 plans. The storm water management plans were 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 I storm water regulations promulgated on November 16, 1990 and the Phase II regulations.

The County's strategy to meet NPDES regulations is to develop and implement BMPs within the six minimum measures that are aimed at reducing pollutants in storm water runoff. If it is determined that the Program is not adequately meeting the County's strategy, then modifications and additions will be identified through Annual Reports and the agencies/public input process, and the County's Program will be revised or updated based on approval by the Regional Water Quality Control Board (RWQCB).

It is important that the Program reflects current and improved BMPs and includes activities that have been shown to be successful in other storm water programs, such as:

- *Pollutant Reduction*: Will the BMP provide pollution prevention to the maximum extent practicable?
- *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?

Modifications to the Program will generally be made in response to effectiveness evaluations and to incorporate new BMPs that more effectively meet the County's strategy to reduce pollutants in storm water runoff.

3-3 *PROGRAM PRIORITIES AND MANAGEMENT ACTIVITIES*

Program priorities for the 5-year permit term of 2003 through 2008 include meeting the goals and activities of each minimum measure as set forth in Chapter 4 of this Program, and to achieve regulatory compliance within this initial permit term. Staff will continue to develop and improve Program activities to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various County departments. Other high priority activities will be to keep abreast of the latest technology and approaches to storm water management, to encourage environmental stewardship, and to 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 County ordinances, provides sufficient legal authority to implement and administer the Program. (The County's ordinances will be incorporated into Appendix E of this Program as they are developed.)

3-5 *PROGRAM ORGANIZATION*

The Program is a comprehensive storm water management program that includes the core elements necessary to comply with federal and state regulations. The core elements, as more fully described in Chapter 4, include: Public Education and Outreach; Public Participation/Involvement; Illicit Discharge Detection and Elimination; Construction Site Storm Water Runoff Control; Post-Construction Storm Water Management in New Development and Redevelopment; and Pollution Prevention/Good Housekeeping for County Operations. In addition to the six minimum measures, the County will pursue innovative, proactive activities to incorporate into the County's Program to address any significant local problems as they become known or develop. Public education and resultant changes in behavior are necessary to bring about long-term improvements to urban storm water runoff quality and to protect the environment.

Another important aspect of the Program is that each Program Element includes ongoing evaluation 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 to ensure effectiveness.

The County as a whole, including elected officials, department heads, and employees, are responsible for compliance with the Butte County NPDES permit requirements and the Program. The County owns a municipal separate storm drain system, including gutters, ditches, culverts, storm drain inlets and outfalls, catch basins, storm drainage pipes, canals, detention basins, and pump stations. The Department of Public Works is the County agency responsible for construction, maintenance, and operation of the County storm drainage system, as well as the administrative and management functions of the Program. The Department of Public Works and the Development Services Department are 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 Public Works Land Development Department, working with staff Senior Engineers, as well as staff from other Public Works Departments, the Development Services Department, and Chief Administrative Office will oversee the Program's development and implementation. Several other affected County departments will also ensure Program development and implementation. A flow chart of departmental responsibilities is included as Appendix B within this Program. Since the names of the various departments and departmental managers that are responsible for specific BMP implementation may change throughout the permit term due to promotions and/or retirements, their names are located on Butte County's Storm Water Webpage at http://www.buttecounty.net/publicworks/stormwater.html.

To carry out Program elements, it will require involvement and cooperation from numerous County departments. 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 other agencies, groups and individuals, whenever possible.

The Department of Public Works and the Development Services Department will do the following: provide education, training, and technical assistance to other County departments and the development community; review new development projects; provide inspections; develop guidance; and implement multiple activities and BMPs.

The Program is primarily assigned to the Department of Public Works Land Development Department. However, staff from other departments will also perform functions of the 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 County infrastructure, and providing consultation and assistance to the public. Through its various departments, the County will provide a full range of activities.

These activities include projects and programs that require pollution prevention measures, such as construction projects and operation and maintenance of facilities like corporation yards, offices, and roadways. Some County departments have direct responsibilities for pollution prevention programs. For example, the Department of Public Works provides recycling and household hazardous waste collection through its Solid Waste divisional duties. For another example, the County of Butte provides sewage treatment and industrial and hazardous waste investigations through its Environmental Health Department. One of the goals of the Program is for the County's employees to be concerned and knowledgeable about, as well as responsible for, protecting the quality of storm water entering the waterways. Implementation of the Program requires the participation, assistance, training, and knowledge of staff within several County departments.

3-6 *ANNUAL PLANNING AND REPORTING ACTIVITIES*

Butte County will perform annual planning and report preparation to comply with the NPDES Permit requirements. Tracking systems will be established for use in reporting of Program activities. Annual reports will be required from each affected department, and staff from the Public Works Land Development Department will prepare and submit the County's Annual Report to the Regional Water Quality Control Board each year. The annual report process will provide a mechanism for continuous evaluation and planning of Program activities.

3-7 *BUDGET/STAFF RESOURCES*

Prior to the required deadline of March 10, 2003, the County submitted it's Program, Notice of Intent and the first year permit fee of $2,500 to the State Water Resources Control Board. Each year thereafter, the annual permit fee is $5,000, assuming no increases by the State. The Regional Water Quality Control Board rejected Butte County's initial program narrative and requested alterations to include tables with more concise measurable goals. This current revision of the County's SWMP contains the format changes requested. In addition to the State's permit fee, Program implementation costs will be incurred to establish a cross-departmental tracking and reporting system, public outreach and education expenses, County employees training costs, and staffing costs for the additional personnel to provide coordination, training and implementation of Butte County's Storm Water Management Program (SWMP). First year implementation costs are estimated to be $75,000.00. Additional costs for efforts in development review and inspection will be required on all new construction projects of one acre or more, and post-construction BMPs will require inspection and enforcement where necessary. These additional costs are dependent on the number of projects submitted. It is also foreseen that many of the activities contained within the County's Program will be incorporated into development review and inspection processes that will be supported by a County permit fee as well as from ordinance enforcement. There is a possibility that a storm water utility fee, and other sources of funds, will be necessary to support the fully implemented Program by the end of the first 5-year permit term. There is currently no federal or state funding available to local entities to help offset the cost impacts of meeting this new federally mandated program.

The Public Works Land Development Department will work with other departments within Public Works, Development Services, and Public Health, whose staffing resources include Engineers, Administrative Analysts, Planners, Building and Code Enforcement Officers, and Environmental Health Inspectors. Possible future

agreements with School Districts will allow the County to provide storm water education in the classrooms to school children in exchange for allowing the School Districts access to the County's operations training programs. The Program may also utilize students from the California State University, Chico, and/or Butte College for education and outreach purposes.

3-8 *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 activities and efforts through other agencies. This section describes the relationship of the Program to joint activities of the permittees; implementation of certain activities through County agencies; and participation in regional, statewide, and national activities.

Relationship of Program Elements to the Permittees' Efforts

The County's relationship with the other Butte County area storm water permittees will provide for a cost effective and comprehensive Program that addresses storm water pollution in the permitted area. It is foreseen the County and the City of Chico will be cost-sharing partners under an agreement to share resources and expenses for joint storm water related measures, such as public education and participation. Agreements and coordination with the local School Districts, as well as with California State University, Chico, will be very important to provide cost effectiveness and regional consistency. Storm water management in the Butte County area is different than most other area-wide efforts in California, since Butte County does not have a lead agency with area-wide jurisdiction like a county flood control district.

The permittees have a long history of information sharing, cost sharing on specific topics, and coordination of other programs in the region for joint projects and cost-sharing opportunities. A committee comprised of representatives from the permittees will continue to meet regularly for these purposes. Meetings will include discussion, planning, and decisions on joint efforts. Common responsibilities and programs, as well as costs, 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; development of various guidelines, general program strategies, and pollutant reduction strategies). Incorporation of storm water inspections with other agency inspection programs that have jurisdiction in the County and the City of Chico is a practical way to conduct industry compliance with storm water regulations efficiently in tandem with existing activities.

Anticipated joint efforts for 2003 through 2008 include:

- Identification and strategy development for BMP effectiveness;
- Illicit spill prevention and notification;
- Various regional educational and outreach efforts.

Relationship of Program Elements to Other County Agencies/Departments

Development and implementation of the Illicit Discharge Elements will include efforts to maintain open avenues of communication with staff from County departments and the City of Chico. For the County, the main purpose of this communication will be to exchange information regarding specific incidents or business activities that are of concern to the County's storm water pollution prevention efforts. There has also been the recognition that inspection activities of County regulatory agencies can effectively and efficiently be expanded to include storm water facility inspections, reporting, and outreach to business and industries.

County agencies that have been identified to incorporate storm water inspections within their regular field duties include the Department of Public Works, Department of Development Services, Environmental Health Division of Public Health, and the California Department of Forestry/Butte County Fire. To meet the Good Housekeeping

requirements within minimum measure six, the Public Works Department and Facilities Services will incorporate BMPs into County construction projects, and the maintenance and operation of County facilities and yards.

Participation in Regional, Statewide, and National Activities

The County's role in state and regional storm water management activities will be to 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 County that will be effective in reducing storm water pollution to the maximum extent practical. Also, some BMPs require partnering with other programs on a state or national level.

4. PROGRAM ELEMENT IMPLEMENTATION

4-1 *INTRODUCTION*

Implementation of Butte County's Storm Water Management Program (Program) is conducted through the Program management activities and the following six Program Elements, referred to as minimum measures: Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post-Construction Storm Water Management in New Development and Redevelopment, Pollution Prevention/Good Housekeeping for (Municipal) County Operations.

This chapter provides a description of each Program Element activities, best management practices (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 County'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, such as spill responses and ordinance revisions, are not predictable and therefore will be accomplished on as needed basis.

Program Element (Minimum Measures) Implementation Introduction

Performance and effectiveness evaluations within the measurable goals ensure that the Program implements activities that 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 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 of resources required to implement the County's Program.

Effectiveness measures provide a tool for assessing 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. Specific goals and level of efforts for specific activities and BMPs to provide effectiveness evaluations will be included in the Annual departmental reports. The results of these effectiveness evaluations, including performance and effectiveness measures, will be provided in the Annual Reports to the Regional Water Quality Control Board.

The Annual Reports will quantify the previous fiscal year efforts (where possible), including the performance and effectiveness of activities, BMPs, and specific tasks. This annual evaluation will assess how well the annual departmental 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 five-year span, or as needed.

4-2 *PUBLIC EDUCATION AND OUTREACH ELEMENT (Minimum Measure 1)*

The Public Education and Outreach Element is the cornerstone of Butte County's Storm Water Program (Program). Whether dealing with the general public, local industry, developers, or County of Butte 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.

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. In each permit term, the Public Education and Outreach Element will continue to actively seek opportunities to work with other agencies, groups and individuals to promote water quality protection. Since the partnerships will be aggressively targeted, efforts will be directed at educating the media to recognize storm water pollution prevention as an important factor in protecting the resources, environment, and quality of life in Butte County. A goal of these partnerships will be to expand the overall awareness and knowledge of the importance of protecting waterways from storm water pollution. Public service announcements and press releases on storm water issues is an importance medium for this awareness.

Since County staff is highly visible in the community, County department activities are another vital target for partnerships. The coordinated efforts of the Public Education and Outreach and County Operations and Facilities Elements will result in knowledgeable County 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 work with the local school districts, California State University, Chico, and the City of Chico 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 possess the necessary tools to make informed decisions on how best to protect Butte County's natural waterways.

Best Management Practices - Public Education and Outreach

This section provides the County's planned efforts for implementation of best management practices in public education and outreach over the initial 5-year permit period:

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

- PE I-A: Stenciling Program

  Develop and distribute information on a storm drain stenciling program and solicit volunteers through schools, community neighborhood associations and clubs, environmental groups, the Storm Water Web site and Storm Water Hotline. New development projects will require any new storm drain inlets to be stenciled.

- 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. Recognize the businesses that actively promote activities that reduce or eliminate storm water pollution. Make the program concepts available to businesses that are incorporating water quality protection measures into their operations or have approached the Butte County Area Storm Water permittees to be included in the program. Incorporate these businesses in the promotion of clean water awareness and implementing of BMPs.

- PE I-C: Community Events

  Partner with environmental and watershed groups to provide material for storm water pollution prevention informational booths at various public events, such as farmer's markets, the Silver Dollar and Butte County Fairs, and other community activities.

- PE I-D: Storm Water Web Site

  Develop and maintain an interactive Storm Water web site. Place annual reports and other storm water information on the site for public access.

- PE I-E: Media Campaigns

  Develop multimedia materials, campaigns, and partnerships. Look for ways to partner with agencies, businesses, and/or industries.

- PE I-F: Water Wise Pest Control Program

  Agricultural advisors, under the direction of the Agricultural Commissioner, will form partnerships with nurseries, retailers, landscapers, and pest control operators to encourage less toxic methods of pest control to reduce pesticide toxicity in urban creeks.

- PE I-G: Public Opinion Surveys

  Use an initial public opinion survey early in the permit term and then occasional surveys thereafter to measure outreach effectiveness.

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

- PE II-A: Storm Water Classroom Presentations

  Support School Board approved Storm Water Pollution presentations suitable for third through sixth grade classrooms. Develop and implement material to tie into science standards by introducing children to water cycle, streamside communities and aquatic food chain concepts and the types and effects of storm water pollution.

*Public Education III - **Public Official Outreach**:*

- PE III-A: County Officials

  Provide opportunities for County officials to participate in environmental education and the distribution of proclamations for groups, industries, businesses, and individuals who have provided an outstanding contribution to water pollution prevention.

- PE III-B: County Department Partnerships

  Nurture and maintain opportunities to work with County departments to promote the storm water message. Incorporate public awareness into County staff training on the Program.

- PE III- C: Annual Agency and Board of Supervisors Update

  Provide copies of the County's Annual Reports submitted to the Regional Water Quality Control Board and provide periodic program updates to the Board of Supervisors and other agencies.

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

- PE IV-A: California Stormwater Quality Association (CASQA)

  Continue to work with CASQA as well as other regions to share information, techniques, and successful approaches to public education and outreach.

Effectiveness Evaluation – Public Education and Outreach

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 opinion survey developed as part of the original program strategy. 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 – Public Education and Outreach

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 implement 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 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: Stenciling Program

  - Number of requests for information materials (P)
  - Number of drains stenciled (P)

- PE I-B: Clean Water Business Partners

  - Number of industries and businesses contacted with storm water message (P, E)
  - Interest from businesses and industries for initiating effective BMPs (E)
  - Comments from customers (E)

- PE I-C: Community Events

  - Number of events attended (P)
  - Interest of public (E)

- PE I-D: Storm Water Web Site

  - Number of visits to Web site (P)
  - Feedback and interest from visitors (E)
  - New features of Web site (P, E)

- PE I-E: Media Campaigns

  - Number of people reached (P)
  - Frequency of message (P)
  - Feedback from target audience (E)

- PE I-F: Water Wise Pest Control Program

  - Materials developed for distribution (P, E)
  - Increase in numbers of alternative pest control information requested (P, E)
  - Number and types of participants supporting program (P, E)
  - Pesticide Public Opinion Survey (E)

- PE I-G: Public Opinion Surveys

  - Survey process (P, E)
  - Survey results (E)

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

- PE II-A: Butte County Storm Water Classroom Presentations

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

*Public Education III - **Public Official Outreach**:*

- PE III-A: County Officials

  - Pollution Prevention Week activity participation (P)
  - Number of Proclamations awarded (P)

- PE III-B: County Department Partnerships

  - Number of departments using storm water program plan (P)
  - Departments incorporating water quality message in department materials (P, E)

- PE III-C: Annual Agency and Board of Supervisors Update

  - Number of Board of Supervisor updates given (P)
  - Copies of Annual Storm Water Management Program presented to other agencies (P)

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

- PE IV-A: California Stormwater Quality Association (CASQA)

  - Participation in statewide and regional outreach efforts (P)
  - Number of information sessions attended (P)

Goals – Public Education and Outreach

The measurable goals for the Public Education and Outreach program for the initial permit term are outlined in the table of measurable goals located in Appendix G.

4-3 *PUBLIC PARTICIPATION AND INVOLVEMENT (Minimum Measure 2)*

The Public Participation/Involvement element of Butte County's Storm Water Program will allow the public to provide valuable input and assistance to the County in its Storm Water Management Program.

Benefits of a Public Participation and Involvement Program

Since it is the activities of the public within urban and rural landscapes that produce diffuse pollution, and the public provides funding for the County and municipalities, it is imperative that the public be provided opportunities to actively participate in both the development and implementation of the Storm Water Management Program. An active and involved community is crucial to the success of a storm water 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 provide a valuable intellectual resource; and

- *A conduit to other programs*, as citizens involved in the storm water program development 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, Butte County will:

- Comply with applicable State and local public notice requirements using an effective mechanism for reaching the public; and
- Determine the appropriate BMPs and measurable goals for this minimum control measure. Possible implementation approaches, BMPs (i.e., the program actions and activities), and measurable goals 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.

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, alternative advertising methods may be considered, such as radio or television spots, postings at bus stops, announcements in neighborhood newsletters, announcements at civic organization meetings, distribution of flyers, mass mailings, door-to-door visits, telephone notifications, and multilingual announcements. These efforts, of course, are closely tied to the efforts for the Public Education and Outreach minimum control measure.

Watershed groups that encompass all or part of the drainages within the permit areas will be included in this effort. Butte County will coordinate with the other co-permittees and will advertise and solicit help from specific population sectors, including ethnic, minority, and low-income communities; academia and educational institutions; neighborhood and community groups; outdoor recreation groups; and business and industry. The goal is to involve various community groups who can offer a multitude of concerns, ideas, and connections.

Best Management Practices - Public Participation and Involvement

- PP I-A: Public Meetings

  Allow citizens to discuss various viewpoints and provide input concerning appropriate storm water management policies and program actions and activities. Watershed groups will be an excellent venue for this type of discussion as well as existing boards and commissions within governmental agencies, such as the Planning Commission, park boards, natural resource committees, etc.

- PP I-B: Community Water Body Cleanups

  Allow citizens to participate in the clean up of different water body drainage areas under the direction of County departments, school districts, and watershed groups. This partnering of governmental and citizen groups will help foster good working relationships throughout the community. "Adopt a Storm Drain" programs encourage individuals or groups to keep storm drains free of debris and to monitor what is entering local waterways through storm drains.

Effectiveness Evaluation - Public Participation and Involvement

Measurable goals are intended to gauge permit compliance and program effectiveness. At a minimum, the measurable goals for this program would be to provide adequate public notice of all public meetings, published in a community publication or newspaper of general circulation, as well as co-sponsor at least one community creek cleanup project per year.

- PP I-A: Public Meetings

  - Number of notices for public meetings (P)
  - Permit and Storm Water Program review comments (E)

- PP I-B: Community Water Body Cleanups

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

Goals – Public Participation and Involvement

A table of the measurable goals for each BMP in the Public Participation and Involvement Minimum Measure is in Appendix G.

4-4 *ILLICIT DISCHARGE DETECTION AND ELIMINATION ELEMENT (Minimum Measure 3)*

The goal of the Illicit Discharge Detection and Elimination Element is to prevent non-storm water sources from entering the drainage systems that discharge into Butte County's waterways that flow into Sacramento Valley waterways. Achieving the goal of the Illicit Discharge Element requires the coordinated efforts of County departments and other affected agencies.

The public also plays an important role in identifying and reporting incidents of spills or illegal dumping. In addition to County activities currently in practice, such as used oil recycling and household hazardous waste collection, additional planned activities are: (1) development of a structured enforcement policy and guidance procedures, with appropriate monetary penalties and/or cost recovery for violations of Butte County's Storm Water related ordinances; (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; and (4) mapping of the storm water conveyance system within the Permit area.

Best Management Practices - Illicit Discharge Detection and Elimination

Activity Description Objective:

Illicit Discharge I - Create a Storm Water Ordinance, which provides the legal authority for regulating illegal discharges. Develop an enforcement policy, procedures, and guidance for Program staff and other County departments in accordance with the Storm Water Ordinance and other County codes.

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

Illicit Discharge III - 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.

Illicit Discharge IV - Develop and continually update the County's storm drain system map within the designated Permit area. The storm drain map is to indicate the intake and discharge areas of the system. It is also to help determine the possible sources of dry weather flow and the particular water bodies these flows may be affecting.

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

- IDE I-A: Create Ordinance

  Create and periodically review and, as necessary, revise the Storm Water Ordinance. Develop and implement enforcement procedures and guidance for violations of the Storm Water Ordinance. Maintain compatibility with related ordinances, as well as federal and state regulations. Non-storm water discharges will be addressed in the County's Storm Water Ordinance.

- IDE I-B: Agency Coordination

  Develop a system to share information and assistance to facilitate inclusion of the Storm Water Ordinance with enforcement activities of various agencies, including but not limited to Code Enforcement, Building Inspection, Environmental Health, Hazardous Materials Team, District Attorney, Butte County Fire Department, as well as the California Department of Forestry.

*Illicit Discharge II - **Program Development**:*

- IDE 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. Develop a method for the public to report observed illicit discharge activities.

- IDE II-B: Find the Source

  Once an illicit discharge is detected, additional efforts will be used to determine/verify the source. Methods of prioritizing areas may include, but are not limited to, tracing the discharge upstream in the storm drain conveyance system.

- IDE II-C: Remove/Correct Illicit Connection or Discharge

  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 and Spill Response**:*

- IDE III-A: Strategy

  Coordinate with the Public Education and Outreach Element and other agencies to educate the public, academic, and business sectors about proper waste disposal alternatives and elimination of illicit discharges.

  Develop guidance and enforcement policy for application of the County's Storm Water Ordinance which will maintain adequate measures for reporting, spill response, investigation, and cleanup.

- IDE III-B: Storm Drain Stenciling

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

- IDE III-C: Hazardous Waste Collection

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

- IDE III-D: Waste Oil Collection

  Continue to support the agricultural and used oil recycle programs performed by the County's Solid Waste Division.

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

- IDE IV-A: Develop Storm Drain System Map

  Develop and update the County's storm drain system map within the designated permitted area to show 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. After the map has been developed, it will be continually updated as improvement plans are approved and constructed to show the new outfall in the permitted area. The County will include all new outfall locations in the Annual Reports submitted to the State Water Resources Control Board.

Effectiveness Evaluation - Illicit Discharge Detection and Elimination

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 County staff, as well as public comments.

Performance and Effectiveness Measures - Illicit Discharge Detection and Elimination

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

- *IDE I - **Storm Water Ordinance and Enforcement**:*

  - Develop, review and revise a Storm Water Ordinance, as necessary (P, E)
  - Develop and implement enforcement procedures and guidance (P, E)
  - Support for enforcement activities (P, E)
  - Number of illegal discharge incidents (P, E)
  - Number of incidents for which penalties were assessed and successfully collected (P, E)

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

  - Number of illegal discharges reported via County Web site (P, E)
  - Number of illegal discharges reported via telephone (P, E)
  - Total number of incidents 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 incident response (P, E)
  - Number of incidents 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 illicit discharges (P)
  - Evaluation of occurrence of common types of illegal discharges and locations (P, E)
  - Number of groups, participants, and storm drains stenciled per year (P, E)

- *IDE 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 development (P)

Goals - Illicit Discharge Detection and Elimination

A table of the measurable goals for each BMP in the Illicit Discharge Detection and Elimination Minimum Measure is in Appendix G.

4-5 *CONSTRUCTION SITE STORM WATER RUNOFF CONTROL (Minimum Measure 4)*

The goal of the Construction Site Storm Water Runoff Control is to reduce the discharge of storm water pollutants to the maximum extent practicable 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 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.

Construction Site Storm Water Runoff Control

The Construction Element also assists in educating the development community and County project managers about the State General Permit for Discharges of Storm Water Associated with Construction Activities requirements. Applicable projects (those that disturb greater than one acre) must provide proof to Butte County 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 County's own requirements for construction projects. In the past, the Construction Element has concentrated on developing ordinances and standards, and incorporating these requirements into the development review process and project management procedures.

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 County facility projects have the tools and procedures in place to effectively comply with County and state requirements. This may include items such as the development of activity-specific Best Management Practices (BMPs).

Best Management Practices - Construction Site Storm Water Runoff Control

Construction I - ***Outreach and Education****:*

- CE I-A: Developer Outreach

  Educate and provide guidance to the construction and development communities on local, state, and federal requirements and new technology and practices. Outreach may take the form of fact sheets on regulations, workshops, preconstruction meetings, brochures for specific practices (e.g., landscapers), etc.

- CE I-B: County Staff Outreach

  Educate and provide guidance to appropriate County staff (e.g., inspectors, project managers, development review staff) on local and state requirements and new technology and practices. Outreach may take the form of fact sheets on regulations, training sessions, staff meetings, preconstruction meetings, brochures for specific practices (e.g., landscapers), etc.

*Construction II - **Ordinance and Standards**:*

- CE II-A: Update Ordinance

  Develop an Ordinance incorporating storm water pollutant control components.

- CE II-B: Update Development Standards

  Develop and adopt erosion, sediment, and pollution control standards and specifications. These standards will be updated based on the latest technology and practices, as necessary. Alternative and innovative control measures will be identified and evaluated through networking with other programs, product research, literature reviews, and BMP performance studies.

*Construction III - **Inspection and Enforcement**:*

- CE III-A: Plan Review and Approval

  Ensure projects will adequately address County erosion, sediment, and pollution control requirements through the development approval process. During plan review, the developer or builder will submit a written statement to the County as to the total amount of land disturbance their project will cover, thereby certifying if the threshold of disturbing one acre or more has been reached. If one acre or more of land will be disturbed, the County will inform the project owner that they are required to submit of a Notice of Intent (N.O.I.) with appropriate fees and a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Quality Control Board.

- CE III-B: Inspection

  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 County project construction sites.

- CE III-C: 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.

Effectiveness Evaluation - Construction Site Storm Water Runoff Control

The effectiveness of the New Construction Elements 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 and visual monitoring will provide verification that the control measures are working.

Performance and Effectiveness Measures - Construction Site Storm Water Runoff Control

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. 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 results of the performance and effectiveness measures will be provided in the Annual Reports.

- *New Construction I - **Technical Assistance**:*

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

- *New Construction II - **Design Standards**:*

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

- *New Construction III - **On-site Storm Water Controls**:*

  - Number of projects conditioned (P)
  - Number of inspections performed (P)

Goals - Construction Site Storm Water Runoff Control

A table of the measurable goals for each BMP in the Construction Site Storm Water Runoff Control Minimum Measure is in Appendix G.

4-6 *POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW AND REDEVELOPMENT (Minimum Measure 5)*

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 and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). 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 impact 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 lead to a loss of aquatic life and damage to property.

Butte County will develop and implement strategies which 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 significant new development and redevelopment.

Best Management Practices – Post-Construction Storm Water Management

Post-Construction I - ***Benefits of a Post-Construction Storm Water Management Program****:*

- PC I-A: Regulatory Mechanism

  Butte County will establish an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls. New development and significant redevelopment will be required to provide nonstructural and structural BMPs.

- PC I-B: Review and Approval Procedures

  The Program requires post-construction program controls to determine if new development and redevelopment designs incorporate adequate structural and/or nonstructural BMPs. Butte County's Program will develop a standard operating procedure for new development or redevelopment plan reviews and approval. The standard operating procedure will identify the department(s) to be included in the process, and will summarize minimum nonstructural and structural BMP requirements. A system will be developed to track the status of plans that will be combined with existing tracking systems.

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

A standard operating procedure will be used for the selection and design of appropriate non-structural and structural BMPs. The design criteria and standards will be provided by reference to criteria manuals. These standards will include traditional methods such as vegetative swales, infiltration systems, and sediment basins or may use appropriate non-traditional methods. Water quality and quantity issues concerning runoff problems will be addressed effectively with sound procedures.

- PC II-A: 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-B: Structural BMP Practices

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

  - Storage Practices – Storage or detention BMPs 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 pollutant removal.
  - Infiltration Practices – Infiltration BMPs 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 BMPs are landscaping features that, with optimal design and good soil conditions, enhance pollutant removal, maintain/improve natural site hydrology, promote healthier habitats, and increase aesthetic appeal.

- PC II C: Regional BMP Practices

  These practices are usually implemented downstream of a large drainage area. They can be online (located in the state waters), or offline (prior to entering state waters). In general, where regional BMPs such as a detention pond exist, some onsite BMPs will be necessary. If the regional BMPs are being placed prior to discharging into state waters, then the regional BMPs can be used to meet the post-construction requirement, and additional on-site BMPs may only be needed to assist in the function of the regional BMPs. However, if the regional BMPs are placed after storm water runoff has discharged into state waters, including natural drainage ways being utilized by the County as part of their MS4, this may be a violation of the regulation's requirement to protect state waters, and additional on-site BMPs must be considered to protect the state waters.

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

- PC III-A: Compliance During Construction

  The County will develop procedures to determine if the BMPs required by the Site Plan Review 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 BMPs are installed correctly, such as not allowing release of development bonds until the proper BMPs are in place and operating.

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

- PC IV-A: Long-Term Operational & Maintenance of Post Construction BMPs

  Adequate long-term operation and maintenance of post-construction BMPs must be maintained to operate properly and the responsibility for operation and maintenance of structural controls, such as a storm water detention basin, should remain with the private-property owner. Butte County requires a drainage easement that precludes modification of the BMP and allows legal access to the property for inspection and actions as necessary to maintain the operation of the BMP as originally intended. As part of the approval process for any development, certain conditions must be met prior to receiving its approval to proceed with construction of the development. Usually, the most important of those conditions are contained on the recorded parcel map or final map. In all instances, Butte County will require as part of the map, that it be noted the legal title holder to the property is responsible for maintaining the BMPs, and that the County through development of ordinances obtains the legal right to enforce that obligation, either by legal action to obtain compliance, or by performing the maintenance itself and then collecting those expenses by recording a lien on the property.

Post-Construction V – ***Documentation & Monitoring Long-Term Compliance****:*

- PC V-A: Long-Term Documentation & Monitoring of BMPs

  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:

  - The County 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 may be used for annual mailings done prior to the rainy season to remind BMP owners to perform necessary maintenance.

  - 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:

    - *Compliance Inspections* - Compliance inspections are routine inspections conducted to ensure that the BMPs are receiving proper maintenance. The inspector verifies that the BMPs are functioning according to design and confirms that the required documentation of inspection and BMP maintenance is occurring. This should include an appropriate level of follow-up when deficiencies are discovered.

    - *Complaint Response Inspections* - The County will have the ability to respond to third party concerns regarding malfunctioning or poorly maintained BMPs. This will include a point of contact, response protocol (either a telephone call to owner/operator, inspection of site by representative of reviewing authority, or some other means of follow-up with the construction site), or review of the site plan, as appropriate. A suitable level of follow-up will be included when deficiencies are discovered.

  - 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 may include the following:

    - Document the need for maintenance on the inspection report. 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.

- Enforcement Program - An enforcement program will be developed and implemented to address failures in BMP maintenance procedures that are not performed within required timeframes. The program will address appropriate responses to common noncompliance issues with developers/property owners. Several options for formal action are available including:

  - Verbal warning to the developer/property owner;
  - Letter of noncompliance;
  - Notice of violation and order;
  - Charge back to owner for work completed by the County.

New Development and Redevelopment Element

The goal of the New Development and Redevelopment Element is to protect local creeks and rivers by reducing the discharge of storm water pollutants that can result from new or redevelopments to the maximum extent practicable (MEP). Generally, new developments may result in: (1) an increase in the total urbanized area, with an attendant increase in the overall load of pollutants discharged into local creeks and rivers; and (2) an increased impervious area, with an attendant increase in the volume of storm water runoff flows. These effects of new development are mitigated with the installation and maintenance of source controls and structural control measures on both a regional scale such as detention basins and on individual properties (termed on-site controls) such as vegetated swales. Control measures, referred to as treatment control measures, are essentially pollutant removal best management practices (BMPs).

The New Development and Redevelopment Element establish review and approval procedures to require regional control measures and on-site source and treatment control measures for new and redevelopment projects. This Program Element also provides outreach to ensure that these procedures are understood and followed, and develops and maintains appropriate standards to guide the selection of possible permanent devices and alternative measures. Regional control measures consist primarily of wet and dry extended detention basins that mitigate excessive sediment transport into local creeks and attenuate peak flows. Detention basins also remove litter and pollutants attached to sediment, including some metals. In addition to particulate removal, wet detention basins may remove some dissolved contaminants. Various on-site controls address different pollutants, depending on their particular objective and design.

Redevelopments offer opportunities to incorporate on-site controls using the same procedures established for new developments. Appropriate standards and requirements are based, at least in part, on research into BMP effectiveness and maintenance requirements and experience. The emphasis of the New Development and Redevelopment Element will be to develop ordinances, design standards, guidance manuals, and maintenance protocols; and incorporate these requirements into the development review process.

Best Management Practices - New Development and Redevelopment Element

*New Development and Redevelopment I - **Technical Assistance**:*

- NDE I-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 may be accomplished

through workshops, presentations at professional organizations, newsletters, or user-friendly fact sheets and websites.

- NDE I-B: County Staff Assistance

  Coordinate training and technical assistance for appropriate staff, including County 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, county e-mails, and memos.

*New Development and Redevelopment II - **Design Standards**:*

- NDE II-A: Update Standards

  Develop and adopt development standards. Development standards include planning practices, site design, regional control measures (e.g., wet and dry detention basins), source control measures, on-site treatment control measures, and maintenance requirements. These standards will be updated based on new technical information, new innovative technologies, and control measure effectiveness.

- NDE II-B: BMP Research

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

*New Development and Redevelopment III - **Regional Storm Water Controls**:*

- NDE III-A: Development Review Process

  Condition projects to incorporate minimum design standards and comply with post-construction requirements during the entitlement process. Utilize the development approval process (i.e., plan check) or County procedures (i.e., County project managers) to ensure projects incorporate regional control measures that meet design standards where appropriate.

- NDE III-B: Maintenance Protocols

  Develop and implement maintenance protocols for watershed control measures.

- NDE III-C: Record Keeping

  Develop and maintain record keeping and data management procedures for tracking regional control measures and their maintenance.

*New Development and Redevelopment IV - **On-site Storm Water Control**:*

- NDE IV-A: Development Review Process

  Condition projects to comply with post-construction requirements during the entitlement process. Utilize the development approval process (i.e., plan check and inspection process) or county procedures (i.e., County project managers) to ensure projects adequately incorporate and construct on-site control measures that meet design standards. Inspection staff will ensure that on-site control measures are properly installed.

- NDE IV-B: Maintenance Protocols

  Develop and implement maintenance protocols for on-site control measures; develop an inspection program to ensure control measures are maintained. Maintenance protocols may include requiring maintenance agreements for select on-site control measures installed on private property.

- NDE IV-C: Record Keeping

  Develop and implement record keeping and data management procedures for tracking on-site control measures and their maintenance.

Effectiveness Evaluation – Post-Construction Storm Water Management in New Development and Redevelopment Element

The effectiveness of the Post Construction Storm Water Management in New Development and Redevelopment 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 may be conducted as needed. Special studies may be conducted by the Butte County area storm water permittees, other public agencies, manufacturers, and/or property owners. If special studies and literature reviews are conducted, information may be used to develop and revise selection requirements, design criteria, and maintenance protocols.

Performance and Effectiveness Measures – Post-Construction Storm Water Management in New Development and Redevelopment Element

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. 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 results of the performance and effectiveness measures will be provided in the Annual Reports.

- *Post-Construction Storm Water Management in New Development and Redevelopment I* - ***Technical Assistance****:*

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

- *Post-Construction Storm Water Management in New Development and Redevelopment II* - ***Design Standards****:*

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

- *Port-Construction Storm Water Management in New Development and Redevelopment III* - ***Regional Storm Water Controls****:*

  - Number of projects conditioned (P)
  - Number of projects constructed or approved (utilize GIS mapping to inventory control measures) (P)
  - Number of inspections and maintenance activities performed (prepare or collect maintenance and inspection reports) (P)

- *Post Construction Storm Water Management in New Development and Redevelopment IV* - ***On-site Storm Water Controls****:*

  - Number of projects conditioned (P)
  - Number of projects constructed or approved (utilize GIS mapping to inventory control measures) (P)
  - Number of inspections and maintenance activities performed (prepare or collect maintenance and inspection reports) (P)

Goals – Post-Construction Storm Water Management in New Development and Redevelopment

A table of the measurable goals for each BMP in the Post Construction Storm Water Management in New Development and Redevelopment Minimum Measure is in Appendix G.

4-7 *POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR (MUNICIPAL) COUNTY OPERATIONS (Minimum Measure 6)*

Butte County conducts numerous 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 Operations and Facilities Element is to reduce these discharges of pollutants in runoff and control non-storm water discharges.

The Operations and Facilities 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 County within the Permit area. This Program Element also conducts operation and maintenance activities that remove pollutants. County operation and maintenance activities provide for the collection and removal of significant quantities of pollutants from storm water runoff. The County may develop a sweeping program to remove sediment and associated pollutants from roadways, gutters, and County owned parking areas that would otherwise enter the storm drains. Furthermore, planning efforts provide the opportunity to incorporate water quality features in the design of 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 operations that are potentially significant sources of pollutants. Outreach and training are essential to ensure that employees are aware of and able to implement the Operations and Facilities Element. Employee training and facility inspections 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 activities will help ensure that pollutant prevention practices are followed. Sweeping and catch basin cleaning activities will be documented. Proposed activities will help protect and improve the habitat of urban creeks.

Best Management Practices - (Municipal) County Operations and Facilities Element Activities

*(Municipal) County Element I - **Technical Assistance**:*

- (M)CE I-A: County Facility SWPPPs

  Conduct inspections of County facilities within permitted mapped area and prepare Storm Water Pollution Prevention Plans (SWPPPs) and best management practices (BMPs) for County facilities that are determined to have storm water pollution potential.

- (M)CE I-B: County Activity Training

  Provide training for County departments on activities that may contribute to storm water pollution.

- (M)CE I-C: New Facility BMPs

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

- (M)CE I-D: Non-Storm Water Discharges

  Discharges of non-storm water from County 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) County Element II - ***Pollutant Reduction Activities****:*

- (M)CE II-A: Sweeping

  Assess the feasibility of implementing a sweeping program, including County parking lots.

- (M)CE II-B: Drainage System Maintenance

  Continue maintenance activities that remove accumulated sediment and floatables from storm drain inlets.

- (M)CE 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.

- (M)CE II-D: Waste Recycling

  Provide and support programs for public waste recycling and household hazardous waste (HHW) collection/disposal.

(Municipal) County Element III - ***Employee Training Program****:*

- (M)CE III-A: Employee Training Program

  Conduct specific training sessions for County employees to provide Butte County's Storm Water Management Program information on appropriate County control measures.

- (M)CE III-B: Employee Feedback Program

  Develop a mechanism to gather information on County activities and suggestions for improvement of County Operations and Facilities Element activities.

Effectiveness Evaluation - (Municipal) County Operations and Facilities Element Activities

The effectiveness of the County Operations and Facilities Element is dependent on adequate training, resources, and staff to ensure that County 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 - (Municipal) County Operations and Facilities Element Activities

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 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. The specific goals and level of effort for effectiveness evaluation activities will be included in departmental annual reports. The results of the performance and effectiveness measures will also be provided in the Annual Reports to the Regional Water Quality Control Board.

- County-I: Technical Assistance

  - Number of SWPPPs and BMPs prepared for County facilities (P)
  - Revisions to SWPPPs and BMPs prepared for County facilities (E)
  - Number of County construction projects with NOI and SWPPPs (P)
  - Number of site inspections of County facilities to ensure that appropriate control measures are implemented (P)
  - Number of County 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 County staff on SWPPPs and BMPs (E)
  - Actions taken to correct problems (E)

- County-II: Pollutant Reduction Activities

  - Amount of sweeping conducted (P)
  - Number of facilities receiving storm drain maintenance (P)
  - Number of structural devices operated and maintained for settling/treatment (P)
  - Types of recycling programs and amount of materials recycled (P, E)

- County-III: Employee Training Program

  - Number of training sessions (P)
  - Feedback from training sessions (E)
  - Number of fact sheets, brochures, procedure manuals, and other outreach material distributed to County employees to describe BMPs for County activities (P, E)
  - Feedback from County staff for improvement to Operations and Facilities Element activities (E)

Goals - (Municipal) County Operations and Facilities Element Activities

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. A table of the measurable goals for each BMP in the Pollution Prevention/Good Housekeeping for (Municipal) County Operations Minimum Measure is in Appendix G.

5. PROGRAM EVALUATION ACTIVITIES

5-1 *INTRODUCTION*

Program evaluation is an important part of the interactive process for improvement of Butte County's Storm Water Management Program (Program). Selection of appropriate activities and best management practices (BMPs) to reduce pollutants to the maximum extent practicable includes evaluation of pollutant reduction capabilities, compatibility with environmental regulations, applicability for Butte County, 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:

- To obtain feedback that will allow the County to continually improve the Program;
- To measure whether Program activities are making progress toward reducing pollution in storm water discharges to the maximum extent practicable and protecting the beneficial uses of local receiving waters;
- To provide information useful to Butte County Area Storm Water Permittees for modifying joint efforts and evaluating the area-wide effectiveness of the County's storm water management activities;
- To ensure compliance with the requirements of the County's MS4 Permit.

Evaluation activities will always be a part of the County's Program. The County 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 County recognizes that the ultimate goals of the Program are to reduce storm water pollution to the maximum extent practicable, 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 County 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 County 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 County plans to evaluate the Program on three levels:

- Overall Program;
- Program Element;
- Activity/BMP.

Overall Program evaluation includes assessments of Program progress and 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 reduction capabilities, experience of other storm water management programs, local applicability in Butte County, 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 County 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 County'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 County departments and divisions will be 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 County networks 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 Permittees will also 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; as well as 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 County 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 - Butte County MS4 NPDES Storm Water Permit Application (N.O.I)

Appendix B - Departmental Responsibility Flow Chart

Appendix B is a flow chart that shows the County departments involvement with each of the minimum measures.

Appendix C - Annual Departmental Reports

Appendix C will provide copies of department annual reports as prepared and submitted to the Department of Public Works Land Development Division for use in preparing the County's Annual Reports to the Regional Water Quality Control Board.

Appendix D - Annual Reports submitted to the RWQCB

Appendix D will provide copies of the County's Annual Reports to the Regional Water Quality Control Board.

Appendix E - Butte County Storm Water Ordinances

Appendix E will provide copies of Butte County's Ordinances that are developed in accordance with this Program

Appendix F - Agreements

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

Appendix G – Measurable Goals Tables

Appendix G contains tables of the measurable goals for the BMPs used for each minimum measure.

Appendix H –Butte County's NPDES Phase II Permit Area Map

Appendix H provides copies of maps that show in detail the boundary of the coverage area for implementation of Butte County's NPDES Phase II permit.

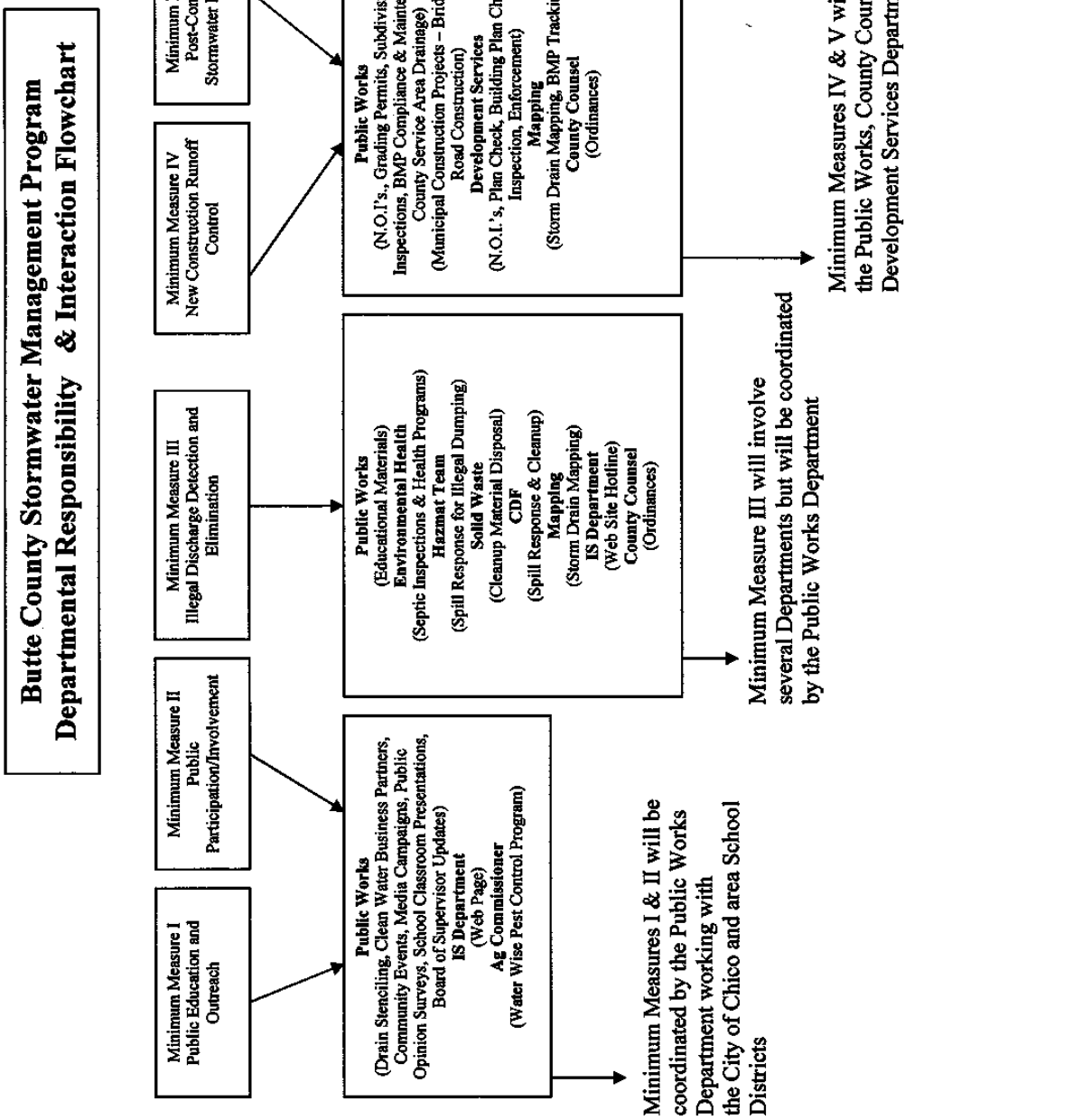
APPENDIX A

BUTTE COUNTY'S MS4 NPDES STORM WATER PERMIT APPLICATION (N.O.I)

Notice of Intent Form was submitted as an attachment to the front of the County's original Storm Water Management Program submittal and is on file at the Regional Water Quality Control Board's Redding office.

APPENDIX B

DEPARTMENTAL RESPONSIBILITY FLOW CHART



APPENDIX C

ANNUAL DEPARTMENTAL REPORTS

The Departmental Annual Reports will be inserted here as they are developed and prepared each year.

APPENDIX D

ANNUAL REPORTS SUBMITTED TO THE REGIONAL WATER QUALITY CONTROL BOARD

This section will be added to at the end of each permit year. Yearly program results as submitted to the RWQCB will be included in this section. The first Annual Report is to due to the RWQCB on September 15, 2004.

APPENDIX E

BUTTE COUNTY STORM WATER ORDINANCES

County Storm Water Ordinances will be placed here as they are developed and adopted by the Board of Supervisors.

APPENDIX F

AGREEMENTS

Agreements with the City of Chico and other area permittees will be included here as there are developed and approved by the Board of Supervisors.

APPENDIX G

MEASURABLE GOALS TABLES FOR ALL MINIMUM MEASURES

Activity/BMP	Implementation Description	Measurable Goals
Public Education and Outreach – General Public and Target Sector Outreach		Implementation Milestones
PE I-A: Storm Drain Inlet Stenciling	• Require 100% of new storm drain inlets to be stenciled.	Require 100% of new storm drain inlets to be stenciled. Ongoing requirement.
	• Map of existing storm drains developed and sectioned into 4 zones.	Storm system map completed by 7/04 and updated as new storm drains are developed.
	• Develop stencil design and materials.	Develop stencil design by 7/04 and re-supply stenciling materials as necessary.
	• Develop stenciling guidelines and procedures and develop and update stenciling volunteer lists.	Develop stenciling guidelines and procedures and stenciling volunteer lists by 7/04. Stencil 100% of permit area storm drain inlets with community involvement by end of 4/08.
	• Stencil 25% of existing storm drain inlets each year beginning 7/04 and completing all drain inlets within initial Permit term.	Stencil 25% of all storm drains by zone each year beginning 7/04 so that 100% of the storm drain inlets are stenciled by end of 4/08.
PE I-B: Clean Water Business Partners	• Develop list of types of businesses to be targeted that could help promote storm water pollution prevention methods.	Develop list of types of businesses to be targeted by 7/04.
	• Develop a mailing list of businesses to be targeted.	Develop a mailing list of businesses to be targeted by 7/04. Update list as new businesses are established.
	• Develop a brochure for each type of business identified as a targeted business that will help promote storm water pollution prevention activities.	Brochure developed by 7/04. Brochure distributed by targeted businesses beginning 7/04 and updated and redistributed as needed.
	• Help promote targeted businesses that promote storm water pollution prevention practices by Supervisor proclamations, web site acknowledgements, etc.	Periodic posting of articles on local business participation and minimum of 1 proclamation for a participating Clean Water Business Partner per year beginning 7/05.
PE I-C: Community Events	• Develop a list of local environmental and watershed groups for possible partnering.	Develop a list for possible partnering by 7/04.
	• Contact Local Environmental and watershed groups about partnering for community events.	Contact groups about partnering for community events by 7/04.
	• Develop locally appropriate brochures on various storm water pollution reduction activities for handout at community events. Brochures can be used in media campaign and made available on the City website.	Develop locally appropriate brochures by 7/04 and distribute beginning 7/04 and throughout remainder of permit term.
	• Attend community events such as farmer's markets, Butte County and Silver Dollar Fairs, to distribute storm water information.	Attend local events – 1 event by 9/04, 2 events per year from 10/04 to 10/06, and 3 events per year from 11/06 to end of 4/08.
PE I-D: Storm Water Website	• Develop and maintain interactive County Storm water website.	Website was created in 3/03 and updates will be done throughout permit term.
	• Add new features to the website such as annual Storm Water Management Program reports.	Post annual reports, new information, business partner success stories, proclamation, links to other sites, and etc. throughout permit term.
PE I-E: Media Campaigns	• Research cost for newspaper adds, radio spots, TV spots, and billboards	Research cost for newspaper adds, radio spots, TV spots, and billboards by 7/04.
	• Develop a list of potential community groups, businesses, and other agencies for partnering with and cost sharing.	Develop potential partnering list and cost sharing ideas by 7/04.
	• Research partnering and costs sharing opportunities with community groups, businesses, and other agencies & develop a media campaign.	Research partnering and cost sharing opportunities and media campaign by 1/05.
	• Implement storm water message Public Services Announcements through radio and television media outlets and printed materials.	Run 1 radio PSA 4 times per year in 2005 and run 2 radio PSAs 6 times per year in 2006 thru 4/30/08. Place a minimum of 10 posters at County buildings and/or on County buses and 4 spot announcements per year on local cable television from 4/06 to end of 4/08.
	• Mail brochure with storm water message with any appropriate County mailings as appropriate.	Brochures or other information mailed with other County mailings beginning 4/06.

Activity/BMP	Implementation Description	Measurable Goals
Public Education and Outreach – General Public and Target Sector Outreach		**Implementation Milestones**
PE I-F: Water Wise Pest Control Program	• Partner with Agricultural Commissioner to form partnerships with local businesses to encourage less toxic methods of pest control.	Partner with Agricultural Commissioner to form partnerships with local businesses by 7/04.
	• Develop point of purchase brochures to give to the public on pest management and fertilizer application that explain methods that reduce storm water pollution potential.	Develop point of purchase brochures 7/04 thru 7/05.
	• Distribute and maintain brochures at local nurseries, retail outlets and community events.	Distribute brochures and maintain supply at minimum of 3 area businesses located within the County permit area beginning 7/05.
PE I-G: Public Opinion Surveys	• Develop locally appropriate public opinion survey and determine most effective method of distribution.	Develop locally appropriate public opinion survey by 10/04.
	• Distribute survey to determine level of public knowledge on storm water pollution issues to determine baseline for measuring effectiveness of Public Education and Outreach activities when survey is redistributed towards the end of permit term.	Distribute, collect and analyze survey results by 1/05. Redistribute survey in 10/07 and determine amount of increased public awareness of storm water pollution issues.

Activity/BMP	Implementation Description	Measurable Goals
Public Education and Outreach II – School Outreach		**Implementation Milestones**
PE II-A: Storm Water Classroom Presentations	• Develop Storm Water Pollution presentations suitable for third through sixth grade classrooms with support of local School Board. Presentations will tie into science standards and be age appropriate. Materials and concepts will introduce children to the water cycle, streamside communities and aquatic food chain concepts and the types and effects of storm water pollution.	Develop Storm Water Pollution classroom presentations by 10/04.
	• Give classroom presentation on storm water issues to grades three through six in primary schools located within the County permit area.	Give classroom presentation on storm water issues once per year beginning 10/04 and twice per year beginning 10/06.

Activity/BMP	Implementation Description	Measurable Goals
Public Education and Outreach III – Public Official Outreach		**Implementation Milestones**
PE III-A: County Officials	• Provide opportunities for County officials to participate in environmental education by notifying them of upcoming community events or presentations that promote the County's Storm Water Management Program.	Notifications to public officials throughout permit term as events and/or presentations are held beginning 1/04.
	• Issue proclamations to groups, industries, businesses and individuals that have provided outstanding contributions to water pollution prevention.	Issue a minimum of 1 proclamation per year beginning 1/05 and as many as appropriate throughout permit term.
PE III-B: County Department Partnerships	• Maintain opportunities to work with County departments to promote the storm water message by incorporating public awareness and county responsibilities into staff training.	Ongoing throughout permit term.
	• Place an article in the County Voice newsletter twice a year that is distributed monthly to all employees.	Place 2 articles each year beginning 9/03 on storm water pollution issues.
PE III-C: Annual Agency and Board of Supervisors Update	• Provide copies of the annual Storm Water Management Program report that are submitted to the Regional Water Quality Control Board to all cooperating County departments and the Board of Supervisors.	Provide copies of the annual Storm Water Management Program report beginning 10/04.
	• Provide periodic updates to the Board of Supervisors as well as other agencies.	Provide periodic updates beginning 9/04.

Activity/BMP	Implementation Description	Measurable Goals
Public Participation and Involvement		**Implementation Milestones**
PP I-A: Public Meetings	• Various public meeting opportunities were held in the preparation of Butte County's Storm Water Management Program. Board of Supervisors meetings held on February 11, 2003 and February 25, 2003, as well as a public meeting put on by the County and the City of Chico on February 5, 2003 allowed for public comments on the development of the Storm Water Management Program.	Public meeting opportunities were held in the preparation of Butte County's Storm Water Management Program prior to 3/03.
	• Incorporate storm water message and encourage public comment at appropriate public meetings held throughout the permit term.	Encourage public comment at appropriate public meetings at a minimum of one public meeting per year.
PP I-B: Community Waterbody Cleanups	• Partner with governmental and citizen's groups, such as School Districts, environmental groups and neighborhood associations to encourage local citizens to participate in creek cleanup activities. Advertise events as part of media campaign in Public Education and Outreach Minimum Measure.	Encourage local citizens to participate in creek cleanup activities once a year beginning 9/03 thru 7/06 and twice a year from 8/06 thru end of 4/08.
	• Develop an "Adopt a Storm Drain" program to encourage citizens, schools or community groups to assist in the care of a storm drain in their neighborhood.	Develop program details by 7/04. County personnel will contact the participants at least once a year to document activities done each year from 8/04 to end of 4/08.

Activity/BMP	Implementation Description	Measurable Goals
Illicit Discharge I – Storm Water Ordinance and Enforcement		**Implementation Milestones**
IDE I-A: Create Ordinance	• Develop storm water ordinance to provide the legal authority for regulating illegal discharges and provide for enforcement activities.	Develop storm water ordinance by 4/05.
	• Ordinance in place.	Passage of Ordinance by 4/06.
IDE I-B: Agency Coordination	• Develop a system to share information and assistance to facilitate inclusion of the Storm Water Ordinance with enforcement activities among various departments and agencies.	Implement Storm Water Ordinance with enforcement activities among various departments and agencies beginning 4/06.

Activity/BMP	Implementation Description	Measurable Goals
Illicit Discharge II – Program Development		**Implementation Milestones**
IDE II-A: Identify Problem Areas	• Develop and prioritize a list of outfalls based on the likelihood of illicit discharges.	List of outfalls based on the likelihood of illicit discharges developed by 7/04. Revise list as new development or other activities warrant.
	• Develop a Storm Water Hotline for citizen's to report observed illicit discharge activities.	Set up Hotline number by 1/05. Publish Hotline number in various places throughout permit term.
IDE II-B: Find the Source	• Once an illicit discharge occurs, determine source of discharge by using investigative methods	Ongoing procedures that have been in place prior to storm water permit – may be modified by language in Ordinance.
IDE II-C: Remove/Correct Illicit Connection or Discharge	• Offending discharger will be required to correct problem. Ordinance passage will identify enforcement procedures.	Ordinance passage will identify enforcement procedures beginning 4/06.

Activity/BMP	Implementation Description	Measurable Goals
Illicit Discharge III – Illicit Discharge Prevention and Spill Response		**Implementation Milestones**
IDE III-A: Strategy	• Coordinate with the Public Education and Outreach Element and with other agencies to educate the public on proper waste disposal alternatives and the elimination of illicit discharges.	Ongoing procedures, such as used oil recycling and household hazardous waste disposal that have been in place prior to storm water permit, will be incorporated to include a storm water message throughout the permit term.
	• Upon development and passage of a storm water ordinance that deals with illicit discharges, develop guidance and enforcement guidelines for departments involved in illicit discharge elimination procedures.	Develop guidance and enforcement guidelines for departments involved in illicit discharge elimination procedures by 1/06 and initiate guidelines beginning 4/06.
IDE III-B: Storm Drain Stenciling	• In conjunction with the Public Education and Outreach stenciling program, develop and maintain a volunteer storm drain stenciling program and new development inlet labeling program.	Develop a volunteer storm drain stenciling program and new development inlet labeling program by 7/04. Maintain program throughout permit term.
IDE III-C: Hazardous Waste Collection	• In conjunction with the County's Solid Waste Division, continue to promote, with a storm water message, the availability of the County's household hazardous waste collection facility.	Ongoing procedures performed within the household hazardous waste collection activities that have been in place prior to storm water permit will include a storm water message throughout the permit term.
IDE III-D: Waste Oil Collection	• In conjunction with the County's Solid Waste Division, continue to promote, with a storm water message, the availability of the County's used oil collection facility.	Ongoing procedures performed within the used oil recycling program, that have been in place prior to storm water permit, will include a storm water message throughout the permit term.

Activity/BMP	Implementation Description	Measurable Goals
Illicit Discharge IV – Storm Drain System Map		**Implementation Milestones**
IDE IV-A: Develop Storm Drain System Map	• Develop and continually update the County's storm drain system map to show locations of outfalls, new drains inlets, tributary areas, and receiving waters. This map will be used for the stenciling program, illicit discharge, construction and the (municipal) county operations elements of the County's Storm Water Management Program.	Storm drain map completed by 7/04 and updated throughout permit term.

Activity/BMP	Implementation Description	Measurable Goals
Construction I – Outreach and Education		**Implementation Milestones**
CE I-A: Developer Outreach	• Educate and provide guidance to the construction and developer communities on storm water pollution control construction activities. Outreach may include brochures, workshops, technical papers, etc.	Beginning in 3/03, the County made available at the Building and Planning Department counters, information on the NPDES General Construction Storm Water Permit. The County will provide additional developer outreach throughout the permit term.
CE I-B: County Staff Outreach	• Educate and provide guidance to County staff on storm water pollution control construction activities. Outreach may include staff meetings, training sessions and seminars.	County staff training will be offered as training programs are developed. County staff will attend at least one training session per year throughout the permit term, more if additional opportunities are available.

Activity/BMP	Implementation Description	Measurable Goals
Construction II – Ordinance and Standards		**Implementation Milestones**
CE II-A: Update Ordinance	• Develop construction ordinance incorporating storm water pollution controls components for construction activities.	Construction Ordinance incorporating storm water pollution controls components for construction activities developed by 4/05.
	• Ordinance in place.	Construction Ordinance in place by 4/06.
CE II-B: Update Development Standards	• Develop erosion, sediment, and pollution control standards and specifications to provide construction guidelines for reduction in construction activity storm water pollution.	Develop Development Standards in conjunction with a Construction Ordinance by 4/06. Development Standards will be revised as appropriate throughout the permit term.

Activity/BMP	Implementation Description	Measurable Goals
Construction III – Inspection and Enforcement		**Implementation Milestones**
CE III-A: Plan Review and Approval	• Ensure projects adequately address storm water pollution reduction best management practices in the plan review process. Information on the NPDES General Construction Storm Water Permit and compliance requirements are discussed at the time a construction permit is requested.	The County currently requires erosion and sediment controls during construction activities. Once the Ordinances are in place by 4/06, plan review and conditions of development will be implemented to reduce storm water pollution potential to the MEP using current acceptable BMPs.
CE III-B: Inspection	• Inspection and enforcement staff will be trained to ensure that pollution control measures are implemented, properly installed and maintained during construction. SWPPPs will be monitored for compliance.	Initial training of staff completed by 4/06. Training ongoing thereafter. Inspections and enforcement of project conditions will coincide with language of each Ordinance.
CE III-C: Record Keeping	• Develop a database for tracking construction activity and BMP usage to measure effectiveness of different designs and practices in various construction projects. BMPs that are ineffective will be discontinued and effective BMPs will be recommended.	Database for tracking construction activity and BMP usage begins 4/06 through end of initial permit term and beyond.

Activity/BMP	Implementation Description	Measurable Goals
Post-Construction I – Benefits of a Post-Construction Storm Water Management Program		**Implementation Milestones**
PC I-A: Regulatory Mechanism	• Establish an Ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls.	Ordinance or other regulatory mechanism requiring the post-construction runoff controls developed by 4/05.
	• Ordinance in place.	Ordinance in place by 4/06.
PC I-B: Review and Approval Procedures	• Develop and implement a process to incorporate adequate structural and nonstructural BMPs in development projects to address post-construction storm water management issues to reduce storm water pollution after construction is completed.	Post-construction BMP measures for storm water pollution control developed by end of 4/05. Implementation of program for post-construction BMP measures for storm water pollution control begins 4/06.

Activity/BMP	Implementation Description	Measurable Goals
Post-Construction II – Design Criteria and Standards (BMPs))		**Implementation Milestones**
PC II-A: Non-Structural BMP Practices	• These practices are intended to prevent or control the sources of pollutants. They include education on proper waste disposal and use of pesticides, herbicides and fertilizers, as well as good construction activity housekeeping. These practices will also be part of the Public education and Outreach and Construction Developer Outreach elements.	Develop program elements, such as handouts and brochures by 7/04. From 7/04 to end of 4/08 make information available to developers and home/business owners on importance of maintaining non-structural BMP practices.
PC II-B: Structural BMP Practices	• These practices are intended to reduce the amount of pollutants that enter state waters. They include storage, infiltration, and vegetative practices for post-construction pollution control.	Develop program elements, such as handouts and brochures by 7/04. Make information available to developers and home/business owners on importance of maintaining structural BMP practices beginning 7/04.
PC II-C: Regional BMP Practices	• These practices are implemented downstream of a large drainage area. The only regional BMP in the Butte County permit area is within the City of Chico and will be addressed in their SWMP.	Consider regional BMP practices when development is downstream of a large drainage area – currently there are none anticipated in the Butte County permit area.

Activity/BMP	Implementation Description	Measurable Goals
Post Construction III – Monitoring Compliance During Construction		**Implementation Milestones**
PC III-A: Compliance During Construction	• Ensure projects adequately address storm water pollution reduction best management practices in the plan review process. Information on the NPDES General Construction Storm Water Permit and compliance requirements are discussed at the time a construction permit is requested.	The County currently requires erosion and sediment controls during construction activities. Once the Ordinances are in place by 4/06, plan review and conditions of development will be implemented beginning 4/06 to reduce storm water pollution potential to the MEP using current acceptable BMPs.

Activity/BMP	Implementation Description	Measurable Goals
Post Construction IV – Ensure Adequate Long-Term Operation and Maintenance of BMPs		**Implementation Milestones**
PC IV-A: Long-Term Operation & Maintenance of Post Construction BMPs	• Ensure projects adequately address the long-term operation and maintenance of post-construction BMPs. Condition recorded maps to make legal owner responsible for maintaining the post-construction BMPs.	Long-term operation and maintenance of post-construction BMPs and recorded map conditions to make legal owner responsible for maintaining the post-construction BMPs in place by 4/06.

Activity/BMP	Implementation Description	Measurable Goals
Post Construction V –Documentation & Monitoring Long-Term Compliance		**Implementation Milestones**
PC V-A: Long-Term Documentation & Monitoring of BMPs	• Develop a database of all new post-construction BMPs to ensure compliance of the requirements for maintaining post-construction BMPs.	Database developed and maintained by 4/06 as post-construction BMPs are built. Annual mailings reminding owners to perform maintenance begins 4/07.
	• Develop an inspection and enforcement program, in conjunction with the Storm Water Ordinances, to ensure BMPs are maintained in good working order.	Enforcement program developed in conjunction with Storm Water Ordinances by 4/05. Enforcement program implemented 4/06.

Activity/BMP	Implementation Description	Measurable Goals
New Development and Redevelopment I – Technical Assistance		Implementation Milestones
NDE I-A: Developer Assistance	• Educate and provide outreach to the construction and developer communities on regional storm water pollution control construction activities. Outreach may include brochures, workshops, technical papers, etc.	Beginning in 3/03, the County made available at the Building and Planning Department counters, information on the NPDES General Construction Storm Water Permit. The County will provide additional developer outreach throughout the permit term.
NDE I-B: County Staff Assistance	• Provide training and guidance to County staff on regional storm water pollution control construction activities. Outreach may include staff meetings, training sessions and seminars.	County staff training will be offered as training programs are developed. Appropriate County staff will attend at least one training session per year throughout the permit term, more if additional opportunities are available.

Activity/BMP	Implementation Description	Measurable Goals
New Development and Redevelopment II – Design Standards		Implementation Milestones
NDE II-A: Update Standards	• Develop and adopt development standards for erosion, sediment, and pollution control measures and regional control specifications to provide construction guidelines for reduction in construction activity storm water pollution.	Design Standards will be developed in conjunction with the Construction Ordinance and will be in place by 4/06.
	• Update and revise design standards as appropriate.	Design Standards will be revised as appropriate throughout the permit term.
NDE II-B: BMP Research	• Identify and evaluate BMP performance and actively seek improved or more efficient BMPs as research or observed effectiveness is demonstrated.	Ongoing process of documenting BMP effectiveness and using alternative BMPs where it can be determined other methods would be more effective.

Activity/BMP	Implementation Description	Measurable Goals
New Development and Redevelopment III – Regional Storm Water Controls		Implementation Milestones
NDE III-A: Development Review Process	• Condition projects to incorporate minimum design standards and comply with post-construction requirements during the entitlement process. Ensure projects incorporate regional control measures where appropriate.	The County currently requires erosion and sediment controls during construction activities. Once the Ordinances are in place by 4/06, plan review and conditions of development will be implemented to reduce storm water pollution potential to the MEP using current acceptable BMPs.
NDE III-B: Maintenance Protocols	• Develop and implement maintenance protocols for watershed control measures.	Development of protocols for regional storm water controls completed by 4/05. Implementation of protocols begins 4/06.
NDE III-C: Record Keeping	• Develop and maintain record keeping and data management procedures for tracking regional control measures and their maintenance.	Developed by 10/04 and then ongoing through permit term and beyond.

Activity/BMP	Implementation Description	Measurable Goals
New Development and Redevelopment IV – On-Site Storm Water Controls		Implementation Milestones
NDE IV-A: Development Review Process	• Condition projects to comply with post-construction requirements of incorporating and constructing on-site control measures that meet design standards.	The County currently requires post construction on-site controls. Once the Ordinances and design standards are developed, on-site storm water controls will be part of review process beginning 4/06.
NDE IV-B: Maintenance Protocols	• Develop and implement maintenance and inspection protocols for on-site control measures.	Development of protocols for on-site controls completed by 4/05. Implementation of protocols begins 4/06.
NDE IV-C: Record Keeping	• Develop and maintain record keeping and data management procedures for tracking on-site control measures and their maintenance.	Developed by 10/04 and then ongoing through permit term and beyond.

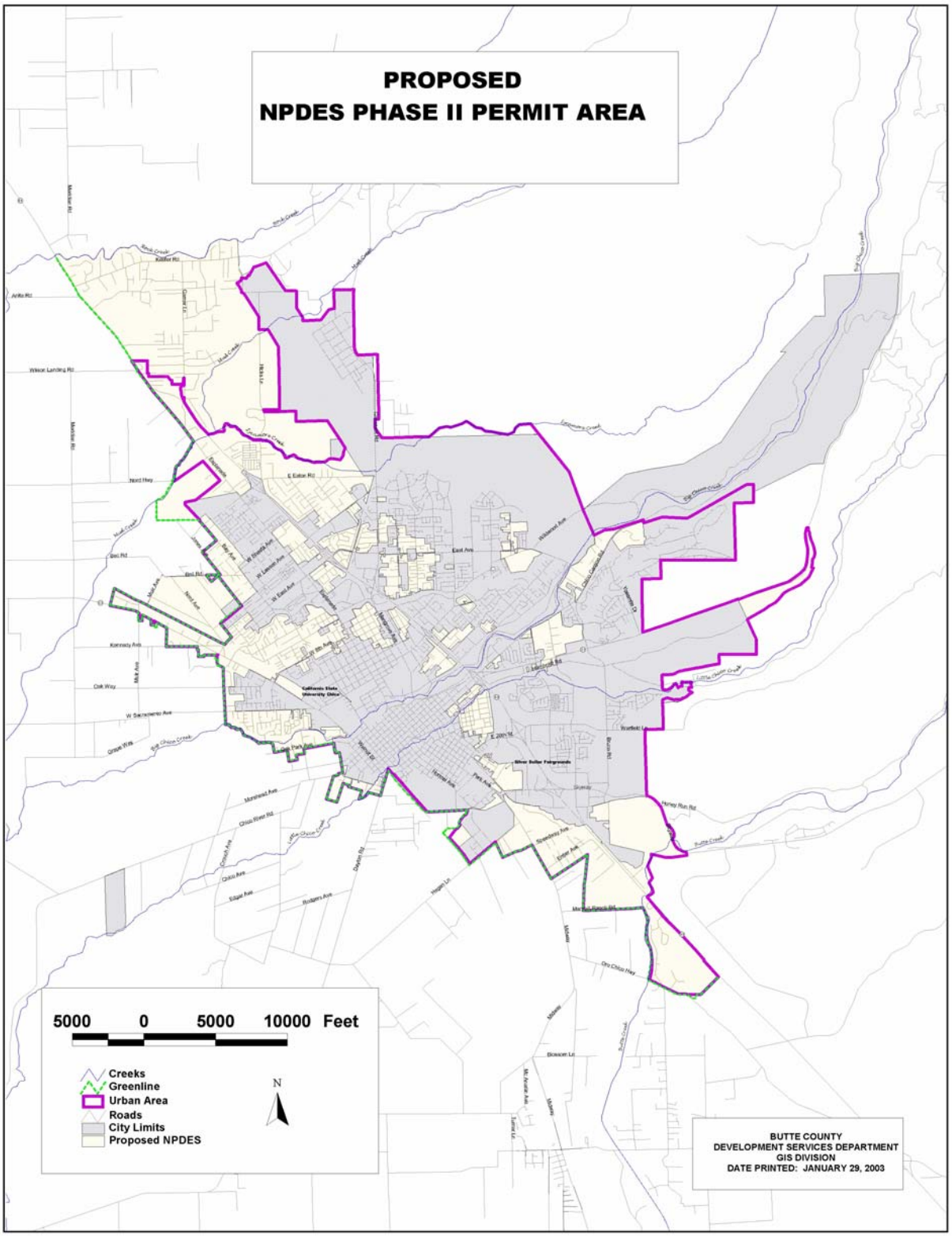
Activity/BMP	Implementation Description	Measurable Goals
(Municipal) County Element I – County Facility SWPPPs		Implementation Milestones
(M)CE I-A: County Facility SWPPPs	• Conduct inspections of County facilities within permit area to determine if work activities have the potential for storm water pollution. • Prepare SWPPPs for County facilities that have storm water pollution potential.	Conduct inspections of County facilities within permit area to determine SWPPP necessity by 10/04. Prepare SWPPPs for 3 facilities (or more if more than 12 facilities need SWPPPs) each year from 10/04 to end of 4/08 so facilities that have storm water pollution potential have a SWPPP prepared.
(M)CE I-B: County Activity Training	• Provide training for County departmental personnel on how various departments within the County may contribute to storm water pollution and what can be done to reduce the potential of storm water pollution.	Develop training materials and presentations by 7/04 and give training to County departments within permit area beginning 7/04 to end of permit term.
(M)CE I-C: New Facility BMPs	• Review design plans for proposed new County facilities and incorporate pollutant control measures in the design as appropriate.	Ongoing procedures as new County facilities are proposed to be constructed.
(M)CE I-D: Non-Storm Water Discharges	• Any discharges of non-storm water from County facilities will be identified and control measures will be implemented to eliminate or reduce pollutants. If necessary, the County will obtain RWQCB approval for authorized discharges.	Discharges on non-storm water are not anticipated but appropriate BMPs will be followed if needed.

Activity/BMP	Implementation Description	Measurable Goals
(Municipal) County Element II – Pollutant Reduction Activities		Implementation Milestones
(M)CE II-A: Sweeping	• Assess the feasibility of implementing a sweeping program. The County's road areas are mostly without curb and gutter so sweeping may be limited to County parking areas.	Assessment of program feasibility by 10/04 and implementation will be dependent on the findings determined by 10/04.
(M)CE II-B: Drainage System Maintenance	• The County has a current program to clean out all storm drain inlets prior to the rain season each year. The frequency of inlet cleaning of some inlets may be modified as the adopt-a-drain and illicit discharge hotline programs are in place and the public makes the County aware of problem areas. Documentation of maintenance activities will be developed and included in the annual reports to the RWQCB.	Ongoing procedures that have been in place prior to storm water permit – may be modified by other minimum measures. Database creation by 7/04 and documentation of cleaning procedures will be an ongoing procedure.
(M)CE II-C: Structural Control Operation and Maintenance	• The County currently maintains structural control devices in settling and treatment facilities at detention basins, along with low-flow control measures to ensure the effective removal of pollutants. Documentation of maintenance activities will be developed and included in the annual reports to the RWQCB.	Ongoing procedures that have been in place prior to storm water permit – may be modified by other minimum measures. Database creation by 7/04 and documentation of maintenance procedures will be an ongoing procedure.
(M)CE II-D: Waste Recycling	• The County currently has an ongoing public waste recycling, used oil recycling and household hazardous waste collection/disposal programs. These programs will include elements of the storm water pollution message. Documentation of activities will be developed and included in the annual reports to the RWQCB.	Ongoing procedures that have been in place prior to storm water permit – may be modified by other minimum measures. Database creation by 7/04 and documentation of activities will be an ongoing procedure.

Activity/BMP	Implementation Description	Measurable Goals
(Municipal) County Element III – Employee Training Program		Implementation Milestones
(M)CE III-A: Employee Training Program	• Conduct training sessions for County employees on their specific departmental activities that can reduce storm water pollution from County operations.	Develop training materials and presentations by 7/04 and give training to county departments within permit area beginning 7/04 thru end of permit term.
(M)CE III-B: Employee Feedback Program	• Develop a program to gather information on County activities and suggestions for improvement from County employees.	Assessment of program by 7/05 and implementation beginning 7/05 through permit term.

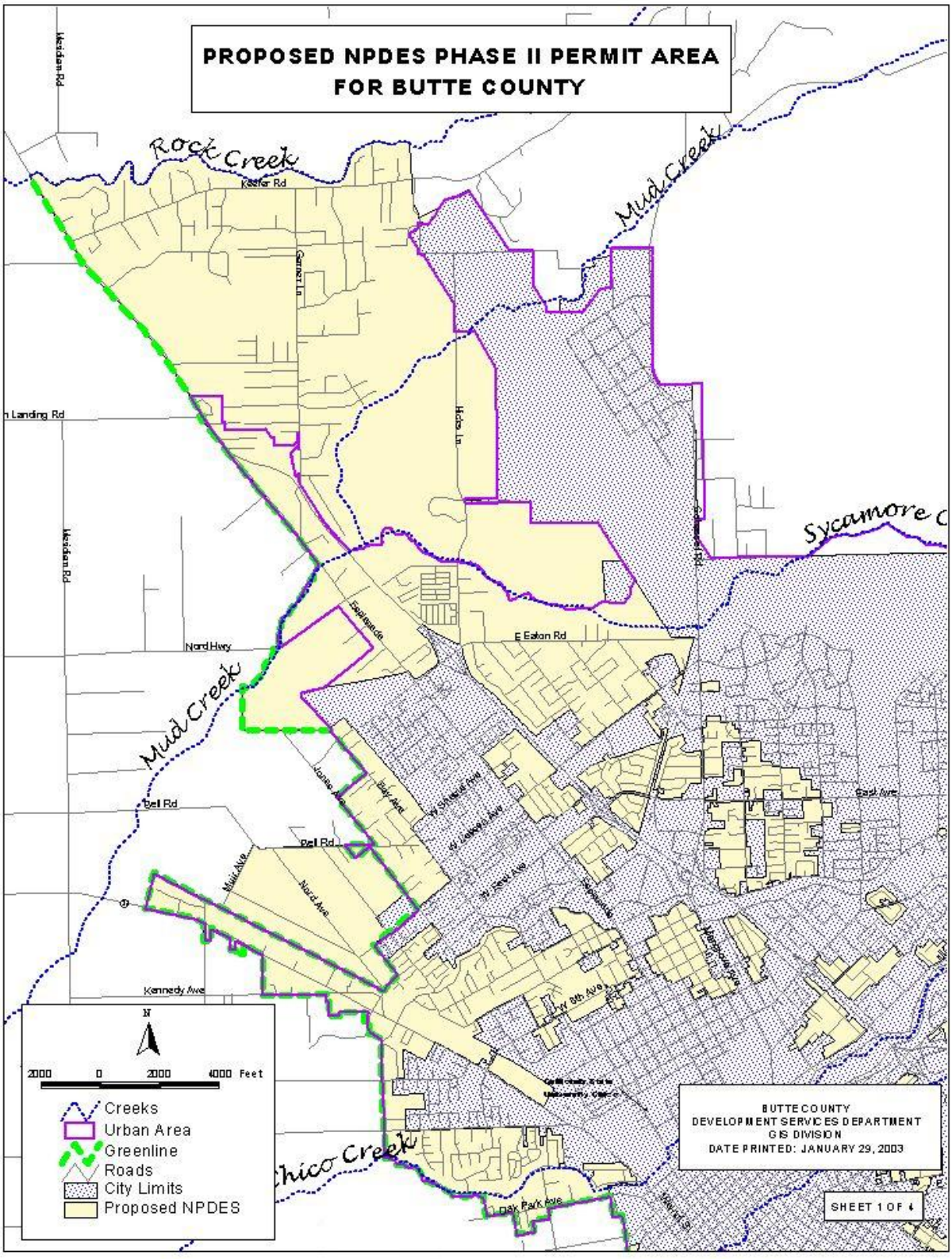
APPENDIX H

BUTTE COUNTY'S NPDES PHASE II PERMIT AREA (condensed map)



APPENDIX H

BUTTE COUNTY'S NPDES PHASE II PERMIT AREA (sheet 1 of 4)



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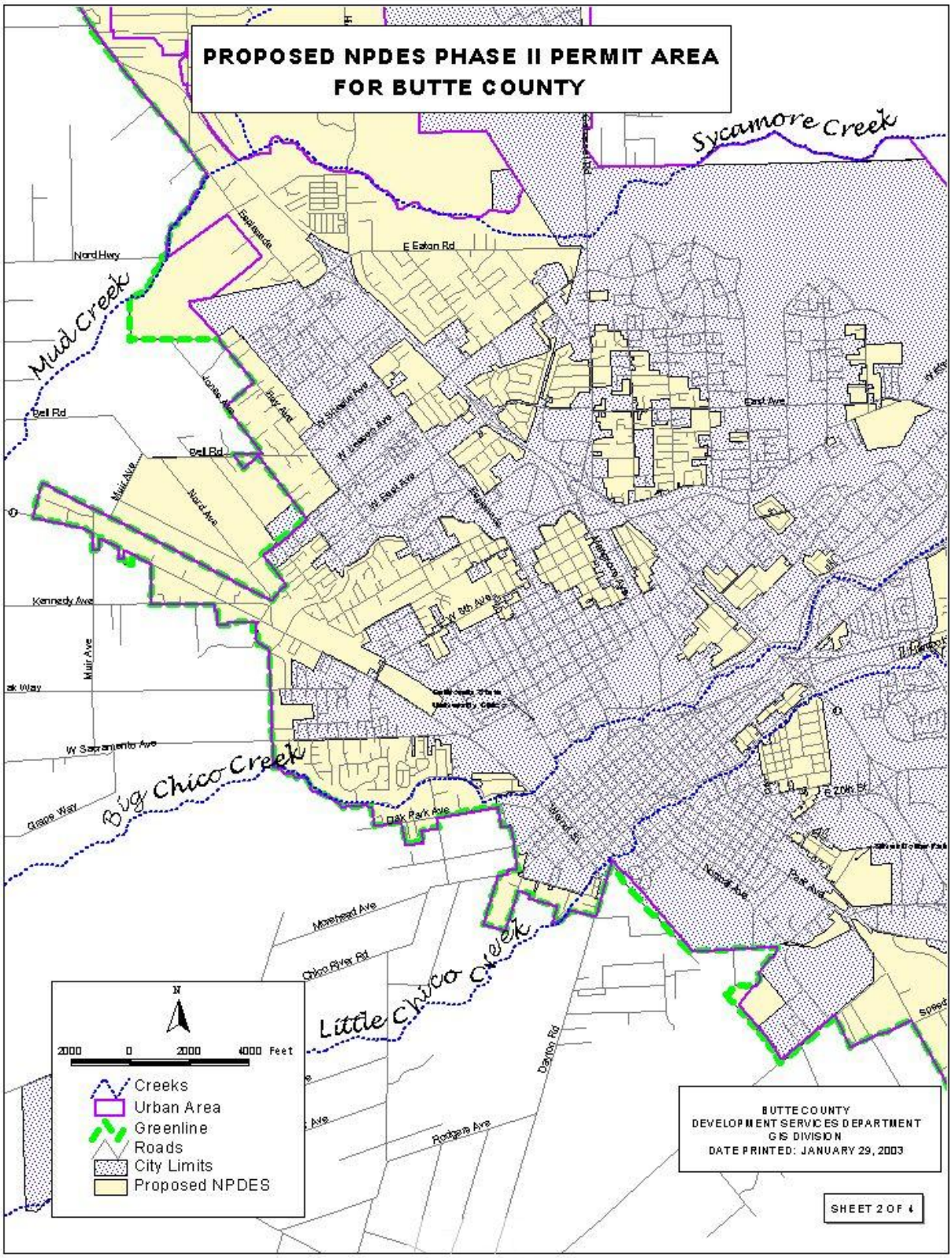
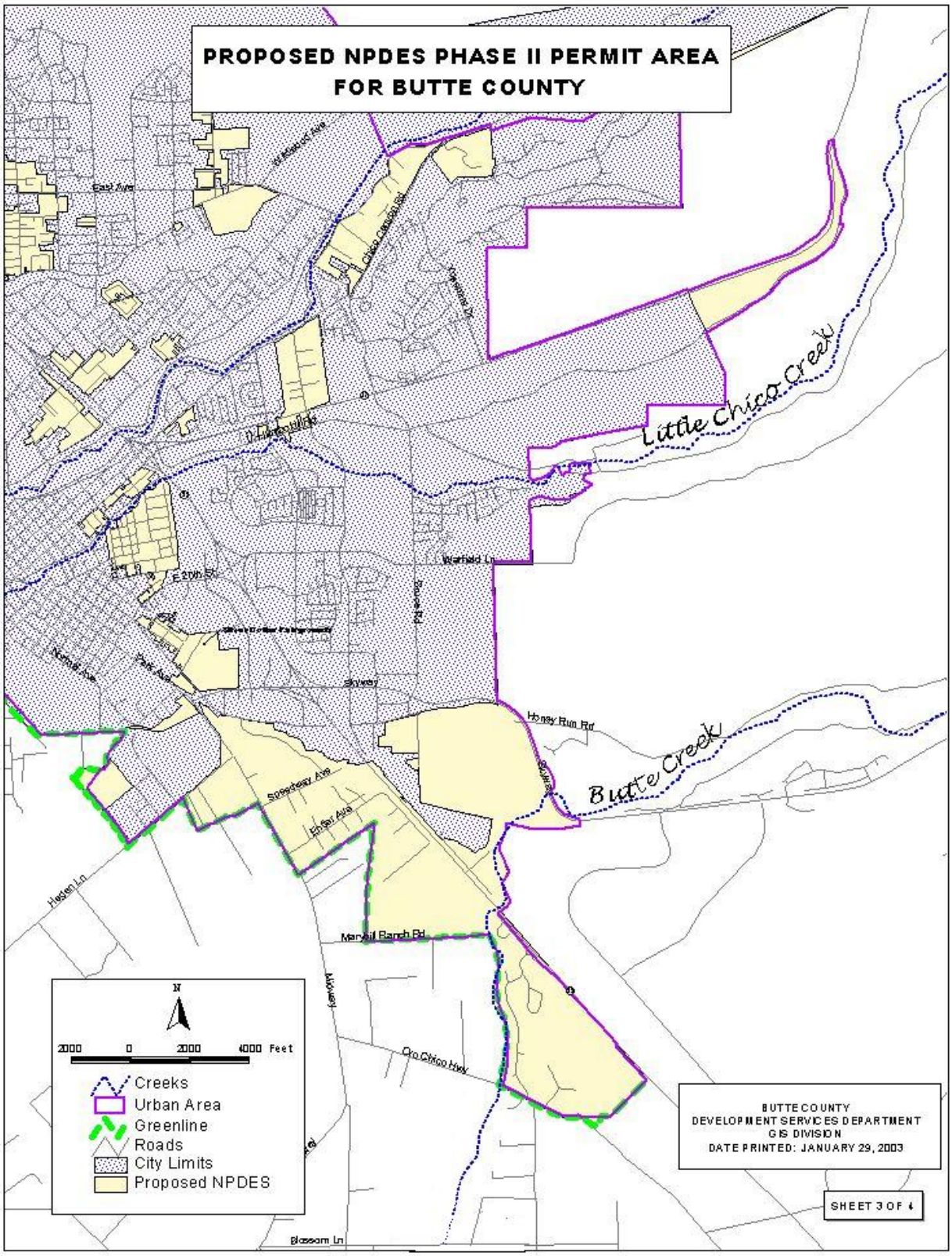
BUTTE COUNTY'S NPDES PHASE II PERMIT AREA (sheet 2 of 4)



APPENDIX H

BUTTE COUNTY'S NPDES PHASE II PERMIT AREA (sheet 3 of 4)



APPENDIX H

BUTTE COUNTY'S NPDES PHASE II PERMIT AREA (sheet 4 of 4)