CITY OF CARPINTERIA
STORM WATER MANAGEMENT PROGRAM

Department of Public Works
December 2008

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LIST OF FIGURES

ACRONYMS

BMP	Best Management Practice
CASQA	California Storm Water Quality Association
CCRWQCB	Central Coast Regional Water Quality Control Board
CCWC	Carpinteria Creek Watershed Coalition
CEC	Community Environmental Council (a community-based
CEQA	California Environmental Quality Act
CK	Channel Keeper (a community-based organization)
CURE	Clean up Rincon Effluent (a community-based organization)
EHS	County Environmental Health Services Division
EIR	Environmental Impact Report
FCD	Flood Control District
GIS	Geographic Information System
HTO	Heal the Ocean (a community-based organization)
LCP	Local Coastal Plan
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
ND	Negative Declaration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PCW	Project Clean Water
POC	Pollutants of Concern
POTW	Publicly Owned Treatment Works
SCWRC	South Coast Watershed Resource Center
SOPs	Standard Operating Procedures
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USEPA	United States Environmental Protection Agency

INTRODUCTION

This is a Storm Water Management Program (SWMP) prepared by the City of Carpinteria (City) in response to State Water Resources Control Board Water Quality Order 2003-0005-DWQ for Phase II of the National Pollutant Discharge Elimination System (NPDES). The goal of this SWMP is to protect the health of the public, the environment, and water quality from the impacts of storm water runoff. The SWMP outlines a program comprised of strategies and guidelines for the protection of water quality and reduction of pollutant discharges to the Maximum Extent Practicable (MEP). This SWMP has been developed to comply with Phase II NPDES Permit requirements, applicable regulations and Clean Water Act mandates. It documents both what the City is currently doing under existing practices to comply with the intent of the NPDES permit and identifies a path forward to expand the program and modify practices based on changes to regulations or available information. This SWMP outlines activities to be implemented during the 5-year NPDES permit period beginning in 2009 and terminating in 2014.

The first draft of the City's storm water quality program was released in January 2002 as part of the Carpinteria Creeks Preservation Program Final Document (CCPP). The CCPP was prepared as an implementation program to the City's General Plan/Local Coastal Plan to guide the preservation and restoration of Creeks located within the City limits. In August 2003 the City's SWMP was revised in response to the SWRCBs final NPDES permit regulations. This draft SWMP, dated December 2008, incorporates requirements described in letters from the Regional Water Quality Control Board (RWQCB) dated February 15, 2008 and July 10, 2008 as well as additional information in response to comments received on a previous draft SWMP from the RWQCB in a letter dated September 17, 2008.

This SWMP is managed by the City's Public Works staff. Other local agencies are involved to ensure appropriate implementation of various Best Management Practices (BMPs) (see the chapter on SWMP Implementation and Coordination for more information on coordination amongst agencies).

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For more information on the City's SWMP or Creeks Preservation Program, please contact:

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CITY OF CARPINTERIA OVERVIEW

Carpinteria is located in coastal Santa Barbara County, approximately 10 miles southeast of the City of Santa Barbara, and 16 miles northwest of the City of Ventura (Figure 1). Carpinteria is a city of approximately 15,000 people year round, with an additional infusion of tourists in the summer months.

It is situated along the only southern facing stretch of coastline in California. The climate, referred to as Mediterranean, never gets too cold or too hot. Annual daytime temperatures range from 60 to 80 degrees, and rainfall averages 17.9 inches yearly. The city sits on a thin strip of fertile land nestled between the mountains and the ocean and is unique in its diversity.

It has always been self-sufficient, with a broad base of business, agriculture, and community activity. Even as many of the surrounding communities become more residential or more business or more tourist oriented, Carpinteria has retained all of the things associated with the charm and feeling of a small town.

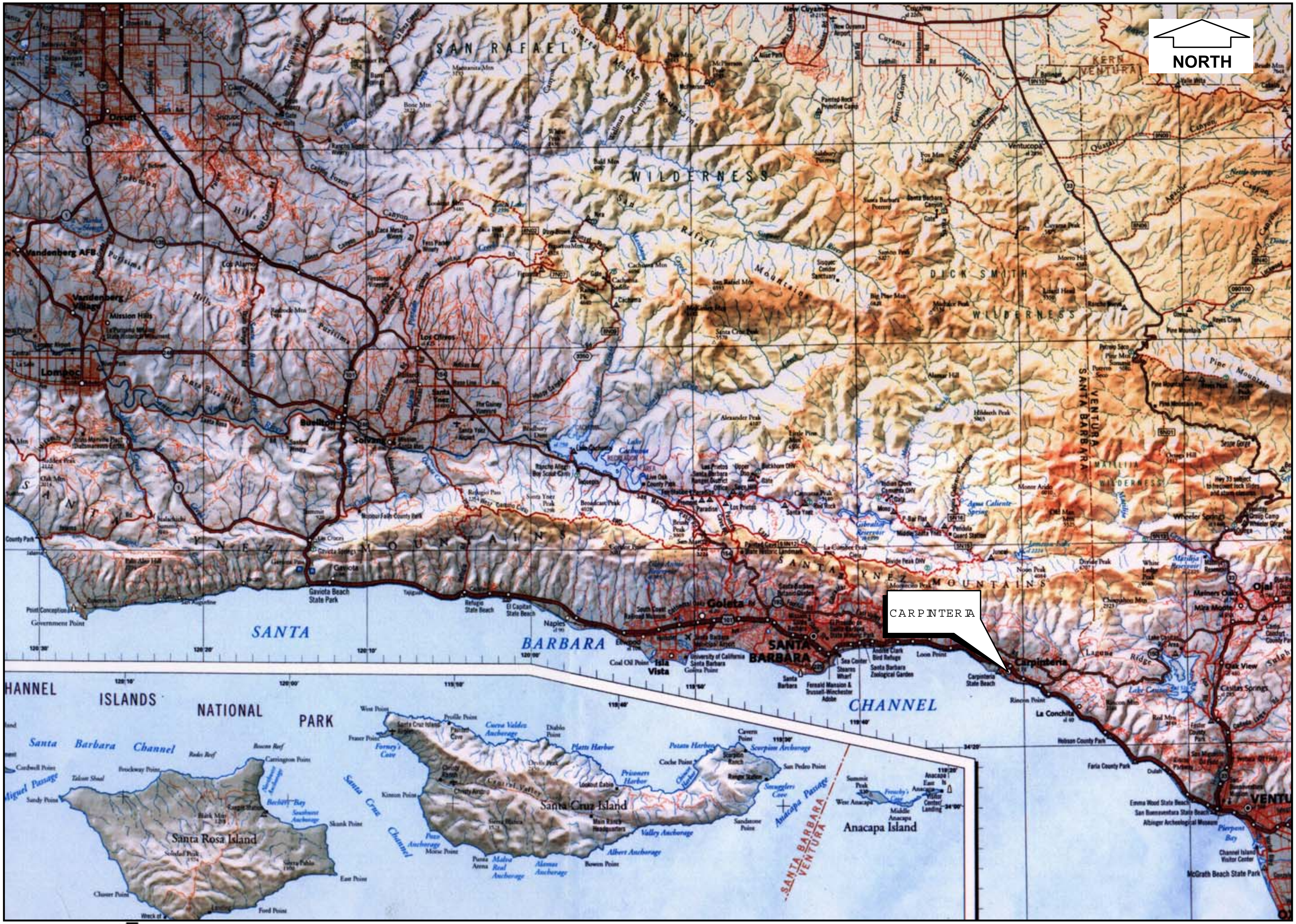
Geographic Setting

Carpinteria is located in the western portion of the Transverse Ranges geomorphic province of southern California. The Transverse Ranges province is oriented in a general east-west direction, which is transverse to the general north-northwest structural trend of the remainder of California's coastal mountain ranges. The Transverse Ranges province extends from the San Bernardino Mountains in Riverside County (east) to Point Arguello (west). The province is bounded to the north by the San Andreas and Santa Ynez faults, the east by the Mojave geomorphic province, the south by the Peninsular geomorphic province and Pacific Ocean, and the west by the Pacific Ocean.

The lower watersheds of local creeks include portions of the Carpinteria Basin and adjacent coastal lowlands. The Carpinteria Basin covers an area of approximately 12 square miles. The basin is bordered to the north by the Santa Ynez Mountains and the south by the east to west trending Carpinteria Fault (See Figures 2 and 3). The basin extends from near Highway 150 and Rincon Creek (east) to offshore of Summerland (west). The Carpinteria Basin is a syncline, a basin-like formation of sedimentary bedrock that has been filled over time by marine and non-marine alluvial sediments. The basin was formed during the Pleistocene, or within the last two million years, which is relatively recent in geologic time.

Drainage Characteristics

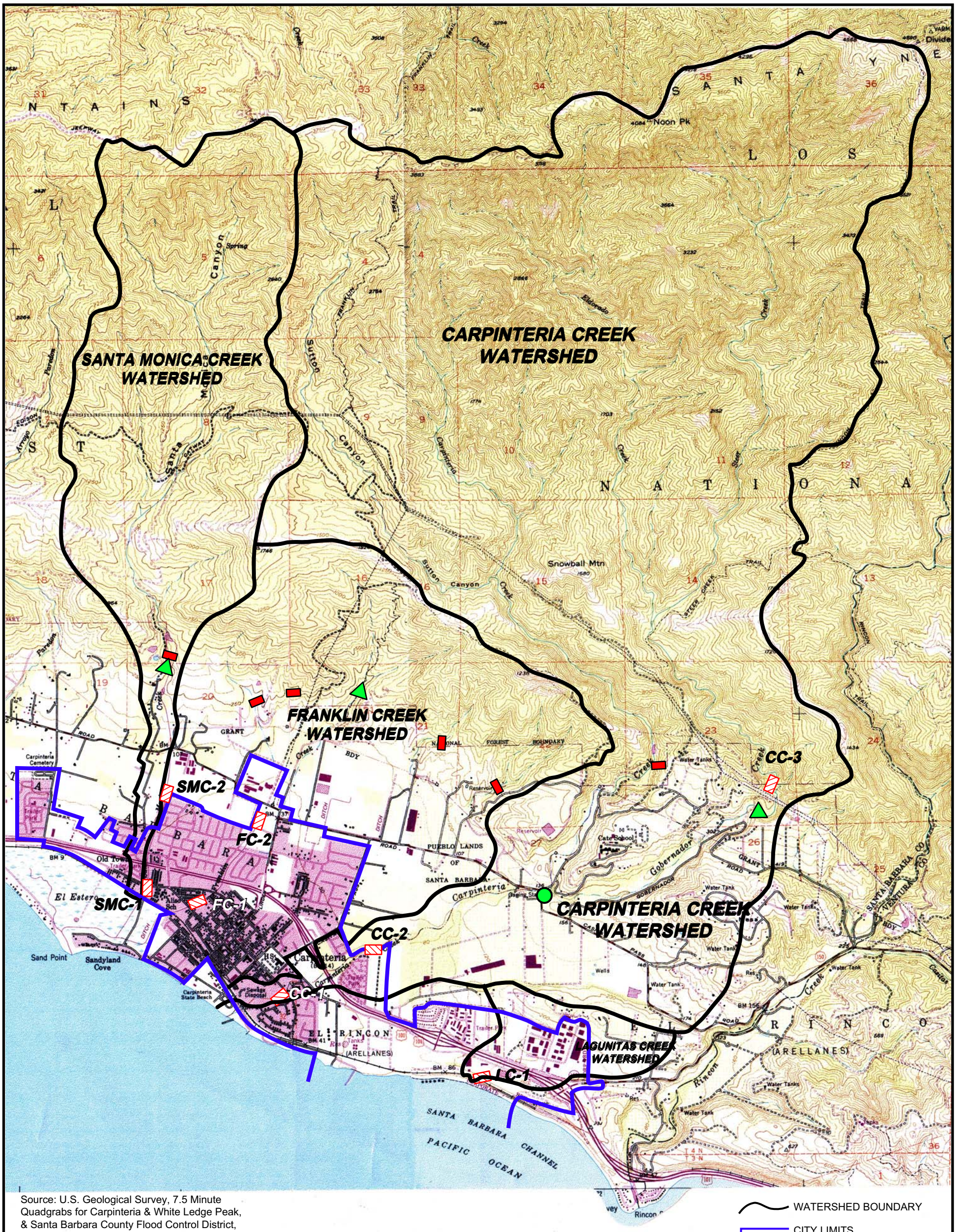
In general, creeks in the local area drain small, steep watersheds that originate in the Santa Ynez Mountains and continue through foothills and coastal terrace areas before emptying into the ocean (see Figure 1). Before reaching the ocean, the flows of some creeks pass through wetlands such as the Carpinteria Salt Marsh (El Estero). Flow levels in local creeks exhibit a high degree of variability through time due to a combination of factors. These include the small size and steep gradient of local watersheds, and the highly seasonal



REGIONAL MAP
FIGURE 1

August 2000
Project No. 2002-0411

NORTH
1" = 3,000'



Source: U.S. Geological Survey, 7.5 Minute Quadgrabs for Carpinteria & White Ledge Peak, & Santa Barbara County Flood Control District, South Coast Watershed Map, Photo Revised 1988.

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Carpinteria Creeks Preservation Program

WATERSHED MAP
FIGURE 2

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NORTH
1" = 3,000'

SANTA MONICA CREEK WATERSHED

CARPINTERIA CREEK WATERSHED

FRANKLIN CREEK WATERSHED

CARPINTERIA CREEK WATERSHED

LAGUNITAS CREEK WATERSHED

SMC-1
SMC-2
FC-1
FC-2
CC-1
CC-2
CC-3
LC-1

Source: Thomas W. Dibblee, Jr., Geologic Maps of the Carpinteria and White Ledge Peak Quadrangles, 1986 & 1987.

SYMBOLS
not all symbols present on each map

FORMATION CONTACT
dashed where inferred or indefinite

MEMBER CONTACT

CONTACT BETWEEN SURFICIAL SEDIMENTS
located approximately in places

FAULT
dashed where indefinite or inferred, dotted where concealed, queried where existence doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement shown by U/D (U = upthrown side D = downthrown side). Short arrow indicates dip of fault plane.

ANTICLINE
arrow on axis indicates direction of plunge, dotted where concealed

SYNCLINE
arrow on axis indicates direction of plunge, dotted where concealed

ANTICLINE
SYNCLINE
arrow on axis indicates direction of plunge, dotted where concealed
horizontal
25 inclined
20 inclined (approximate)
vertical
25 overturned
25 inclined metamorphic foliation

STRIKE AND DIP OF BEDDED ROCKS

Qls
DIRECTION OF LANDSLIDE MOVEMENT

SANDSTONE BED

CONGLOMERATE BED

MICROFOSSIL LOCALITY

TAR SEEP

SPRING

ABANDONED EXPLORATORY OIL (OR GAS) WELL

ROAD CLASSIFICATION
Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
U.S. Route
State Route

WATERSHED BOUNDARY
CITY LIMITS
STUDY REACH
GRADE STABILIZER
DEBRIS BARRER
GAGING STATION

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GEOLOGIC MAP
FIGURE 3

pattern of rainfall that occurs in the local area and throughout southern California as a whole. High creek flows occur during and immediately after heavy rainfall events, which occur almost exclusively between November and April in the local area. Generally, low surface flows or dry conditions exist between rainy periods. Some local creeks are also fed by mountain springs, seeps, and groundwater, and maintain perennial (year-round) flow. Perennial creek sections are usually in the mountains and foothills, where seeps and springs are typically located. Lowland creeks and higher elevation creeks without substantial inputs from springs, seeps, and groundwater typically have intermittent (i.e., seasonal) flow.

The City of Carpinteria drains to four main creeks including Carpinteria Creek, Franklin Creek, Santa Monica Creek and Lagunitas Creek. The general characteristics of each watershed are described below.

Carpinteria Creek drains a watershed of approximately 15.0 square miles (approximately 9,600 acres). The Carpinteria Creek watershed is delineated in Figure 2. The main channel of Carpinteria Creek has two major tributaries: upper Carpinteria Creek and Gobernador Creek. The confluence of these tributaries is just upstream (north) of Foothill Road (see Figure 2). The upper Carpinteria Creek watershed includes upper Carpinteria Creek and Sutton Canyon Creek. The Gobernador Creek watershed includes El Dorado Creek and Steer Creek. The Carpinteria Creek watershed reaches a peak elevation of approximately 4,690 feet. Headwater tributaries drain steep hillsides and canyons of the Santa Ynez Mountains. In the foothills and coastal plain, Carpinteria Creek passes through agricultural and urban areas. The creek passes under bridge crossings at U.S. 101 and Carpinteria Avenue, and continues south between the Concha Loma residential tract to the east and downtown area to the west. Farther downstream, the creek passes under the Union Pacific Railroad bridge, and empties into the ocean at Carpinteria State Beach.

The lower portion of the Carpinteria Creek watershed includes foothills and coastal terrace areas of the Carpinteria Basin. Much of the lower watershed has been converted to agriculture (orchards, row crops) and urban uses. Geologic formations in the lower watershed are shown in Figure 3, and include Older Alluvium (Qoa, Qog) in the gently sloping foothills, and Recent Alluvium (Qa) in the coastal lowlands (Dibblee, 1986 and 1987). Topsoils within the lower watershed are shown in Figure 4, and include the following: Orthents, 50 to 75 percent slope (OAG), Milpitas stony fine sandy loam, 15 to 30 percent slopes (MdE), Elder sandy loam, 2 to 9 percent slopes (Eb), Todos clay loam, 9 to 15 percent slopes (TbE2), LcG, TdF2, Milpitas-Positas fine sandy loams, 15 to 30 percent slopes (MeE2), Milpitas-Positas fine sandy loams, 2 to 9 percent slopes (MeC), Goleta fine sandy loam, 0 to 2 percent slopes (GcA), Metz loamy sand (Mc), Milpitas-Positas fine sandy loams, 30 to 50 percent eroded slopes (MeF2), Milpitas-Positas fine sandy loams, 9 to 15 percent eroded slopes (MeD2), Camarillo Variant, fine sandy loam (Cb), Goleta loam, 0 to 2 percent slopes (GdA), and Aquents, fill areas (AC) (USDA, 1981).

Creeks in the Carpinteria Creek watershed generally have natural beds and banks along their length. However, creek channelization has occurred, primarily in the coastal lowlands. Alterations to the creek bed and banks of lower Carpinteria Creek have been carried out with the primary intention of protecting developed areas, roads, bridges, etc. that encroach upon the creek from flooding, bank erosion, and related hazards. Major flood control

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NORTH
1" = 3,000'

SANTA MONICA CREEK WATERSHED

CARPINTERIA CREEK WATERSHED

FRANKLIN CREEK WATERSHED

CARPINTERIA CREEK WATERSHED

LAGUNITAS CREEK WATERSHED

SMC-1
SMC-2
FC-1
FC-2
CC-1
CC-2
CC-3
LC-1

Source: U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Santa Barbara County, South Coastal Part, 1981.

WATERSHED BOUNDARY
CITY LIMITS
STUDY REACH
GRADE STABILIZER
DEBRIS BARRER
GAUGING STATION

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SOILS MAP
FIGURE 4

facilities in the Carpinteria Creek watershed are shown in Figure 2. There is a large detention basin on Gobernador Creek, approximately 1.5 miles upstream the Gobernador Creek/upper Carpinteria Creek confluence. This basin fills with sediments naturally over the course of several years because of high sediment yields from the steep coastal mountains, and is regularly re-excavated and maintained by the Flood Control District. There is a grade stabilizer along upper Carpinteria Creek approximately 1.5 miles upstream of the confluence. Other creek modifications include bank protection structures (pipe and wire revetment, rip rap), at grade concrete road crossings (summer crossings), and roadway bridges. Some sections of Carpinteria Creek in the coastal lowlands have been straightened. In addition, the Flood Control District regularly conducts minor grading and shaping of the bed and banks of lower Carpinteria Creek to protect development from flooding and bank erosion.

Franklin Creek drains a watershed of approximately 5.0 square miles (3,200 acres), and reaches a peak elevation of 1,746 feet. Major tributaries to the main channel of Franklin Creek include the East Branch, West Branch, and High School Creek. The Franklin Creek watershed is outlined on Figure 2. Through the mountains, the tributaries flow through relatively undisturbed National Forest lands. Through the foothills and coastal terrace, the tributaries and main channel of Franklin Creek are flanked by agricultural and urban areas. Franklin Creek empties into the 230-acre Carpinteria Salt Marsh (El Estero), an important coastal wetland.

The main channels of Franklin Creek and its tributaries have been channelized in the coastal lowlands. Major flood control facilities are shown in Figure 2. A detention basin has been constructed along the West Branch, in the foothills approximately one mile upstream of Foothill Road. Grade stabilizers have been constructed along four tributary creeks in the foothills, including the East Branch. The creek channels have been converted to open, straight, concrete box channels from the base of the foothills downstream through the coastal terrace (see photograph in Figure 5). This project was undertaken in the late 1960's and early to mid-1970's by the United States Soil Conservation Service, Santa Barbara County Flood Control District, and the City of Carpinteria. The project was initiated after a series of flooding events that occurred along Franklin and Santa Monica Creeks in the 1960's caused damage to adjacent developments.

Santa Monica Creek drains a watershed of approximately 3.8 square miles (approximately 2,400 acres) with a peak elevation of 3,835 feet. The main channel of Santa Monica Creek has several unnamed tributaries. The watershed of Santa Monica Creek is outlined on Figure 2. Through the mountains, the tributaries and main channel flow through relatively undisturbed National Forest lands. Through the foothills and coastal terrace, Santa Monica Creek is flanked by agricultural and urban areas. Like Franklin Creek, Santa Monica Creek empties into the Carpinteria Salt Marsh.

Creek flow in Santa Monica Creek is dominated by storm water inputs in the rainy season. The steep headwater section of the creek is also fed by at least two springs (USGS, 1988). There are usually year-round low flows in the concrete channel section of the creek (lower watershed) due to return flows from adjacent urban and agricultural areas.

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Looking west along the Main Channel of Franklin Creek, from near the Foothill Rd. / Linden Ave. intersection. The West Branch of Franklin Creek enters the Main Channel in the mid-ground of the photograph. These formerly natural creeks have been converted to concrete box channels.

Photographs of lower Carpinteria Creek (above) and Gobernador Creek (below), near the confluence of upper Carpinteria Creek and Gobernador Creek (approximately 150-160 ft. elevation). These stream sections are low to medium gradient, and maintain a bed composed of medium to small sized boulders, and deposits of cobble, gravel, and sand. These stream sections have alternating riffles and pools of shallow to medium depth, and fairly low, gently sloping banks composed of alluvial material and topsoil. A narrow corridor of riparian vegetation is present. Dominant riparian trees are California sycamore, black cottonwood, arroyo willow, and coast live oak.

PHOTOGRAPHS OF REPRESENTATIVE STREAM REACHES
FIGURE 5

Like Franklin Creek, the main channel of Santa Monica Creek has been channelized. Major flood control facilities are shown in Figure 2. A detention basin has been constructed along the creek near the base of the foothills. Downstream of the detention basin, the creek has been converted to an open, straight, concrete box channel.

Lagunitas Creek drains a small, approximately 300-acre watershed consisting of coastal terrace and foothills in the southeast portion of the City (see Figure 2). The peak elevation of the watershed occurs at Mark Hill, approximately 243 feet above sea level. As shown in Figure 3, geologic formations in the watershed include Qog in the foothills, and Qoa in the coastal lowlands (Dibblee, 1986 and 1987). Topsoils within the watershed are shown in Figure 4, and include MeC, Baywood loamy sand, 2 to 9 percent slopes (BcC), MeD2, Xerorthents, cut and fill areas (XA), and MeE2 (USDA, 1981).

North of U.S. 101, this watershed includes agricultural lands, low-density residential, commercial, and industrial areas. These areas are drained by a network of storm drains and earthen ditches, which convey storm water to a 54" reinforced concrete pipe that crosses under U.S. 101 and Carpinteria Avenue. Immediately south of Carpinteria Avenue, the pipe feeds into Lagunitas Creek, an earthen creek channel that winds through Carpinteria Bluffs Area II. At its downstream end, the creek enters a pipe passing underneath the railroad to the coastal bluffs. Flows are discharged from the pipe down the bluff face to the beach and ocean.

Water Quality Characteristics

In general, local creeks have excellent water quality in their upper reaches within the relatively undeveloped Santa Ynez Mountains. Due to their relatively undisturbed condition and excellent water quality, many local mountain creeks support diverse biological communities, and are generally safe for human contact and drinking. Downstream through the foothills and coastal plain, the presence of human development increases which over the years has impacted water quality.

Pollutants of Concern. The primary pollutants of concern (POCs) in local creeks are bacteria, nutrients, organics and dissolved oxygen. These pollutants have been identified by the State Water Resources Control Board (SWRCB) as causing water quality impairments in creeks that pass through the City of Carpinteria. The specific 303(d) listed impairments identified for each water body to which the City of Carpinteria discharges stormwater are summarized in Table 1 below. There are currently no Total Maximum Daily Loads (TMDLs) for receiving waters to which the City discharges however, they are anticipated for the water bodies and associated impairments listed in Table 1.

Secondary pollutants of concern include oil, grease, pesticides, organic wastes, suspended sediments, and water temperature. In general, the source of pollution in local watersheds is surface water runoff from urban and agricultural areas, most of which are outside and upstream of the City's boundary. Individual septic systems have been identified as contributing nutrients and bacteria in areas that do not have sanitary sewer service. There are not a large number of industrial point sources in the local watersheds.

Table 1. 2006 303(d) Listed Water bodies and Associated Impairments

Water body	303(d) Listed Impairments	TMDL Status
Carpinteria Creek	Pathogens	In development
Carpinteria Marsh	Organics, Nutrients, DO	In development
Pacific Ocean at Carpinteria State Beach	Fecal and Total Coliform	In development
Franklin Creek	Nitrate	In development

Bacteria levels have become elevated in some local creeks due to local land uses and activities. Fecal coliform bacteria are found in human and animal feces, and are of particular concern with respect to health issues. Untreated fecal material could contain strains of fecal coliform bacteria that are pathogenic, as well as viruses such as hepatitis, and could cause infections in animals and humans that engage in contact with the contaminated water. Ocean testing following runoff events has confirmed the presence of these pathogens, resulting in intermittent beach advisories and/or closures.

Nutrient levels in local creeks are usually low in natural conditions where moving water limits algae growth. Increases in nutrient concentrations (primarily due to runoff of fertilizers from agricultural areas) can result in algae blooms, which greatly increase the amount of organic material in the creek that must eventually be decomposed. Decomposing bacteria use up oxygen. Thus, increases in nutrients can result in depressed dissolved oxygen levels. Decreased dissolved oxygen levels can also result from increased inputs of oil, grease, and other organic wastes, which can become trapped in local creeks, where they are decomposed. Decreased oxygen levels can have detrimental effects on aquatic wildlife such as fish, amphibians, and invertebrates.

Sediment yields from the local mountains are naturally high due to the steepness of the terrain and the geologic youth of the mountain chain. Sediment loading along the coastal plain is naturally low however urban land uses have contributed to changes in the sediment regime of most local creeks. Increased suspended sediment loads in local creeks can result in adverse changes in creek channel morphology, such as burial of creek bottom features (e.g., gravel, cobble, boulders, and woody debris) that provide habitat for fish, amphibians, and other aquatic organisms. Increased suspended sediment loads also result in detrimental effects to water quality, including increased turbidity, lower dissolved oxygen content, and suspension of organic and inorganic pollutants that become trapped in sediments. These effects harm aquatic organisms due to decreased visibility in the water column, clogging of gills and other organs with sediment particles, asphyxiation, physiological effects from toxins, etc. Physiological impacts to aquatic organisms also result from inputs of pesticides, herbicides, and other toxins.

Elevated water temperatures are another common problem in local creeks. Elevated water temperature primarily results from the loss of riparian vegetation, which provides shade.

Dissolved oxygen saturation levels decrease with increased water temperature, thus elevated water temperatures can impact species such as steelhead and rainbow trout that are sensitive to changes in dissolved oxygen levels. Concrete channels absorb heat and result in higher temperatures during low flows.

SWMP REGULATORY BASIS AND APPLICABILITY

The Storm Water Phase II Final Rule requires the operator of a regulated small municipal separate storm sewer system (MS4), to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage because discharges of storm water from such systems are considered "point sources" of potential pollution. MS4s are considered publicly owned or operated point sources because they collect storm water and direct it into discrete conveyances, including roads with drainage systems and municipal streets.

According to 40 CFR 122.26(b)(8), "municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)...including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States.
- Designed or used for collecting or conveying storm water;
- Which is not a combined sewer; and
- Which not part of a Publicly Owned Treatment Works (POTW) is as defined at 40 CFR 122.2."

EPA categorizes MS4s as either "small," "medium," or "large." Regulated small MS4s are automatically designated if they are located in "urbanized areas" (as defined by the Bureau of the Census). The City of Carpinteria falls into an "automatically designated" area; thus, is categorized as a Small MS4 with a population under 50,000. In addition, the State of California imposes additional requirements if the small MS4 is located in an area that is expected to undergo greater that 10% population growth per year. No such growth rate is expected in the City of Carpinteria; thus, so the State's additional regulations do not apply.

Requirements for Regulated Small MS4s

The owner or operator of a Phase II regulated small MS4, is required to submit a Notice of Intent (NOI) and Storm Water Management Program (SWMP) to obtain coverage under an NPDES storm water permit. The SWMP must describe how pollutants in storm water runoff will be minimized based on selected BMPs that address the six "Minimum Control Measures" (MCM). The intent of the SWMP is to:

- Reduce the discharge of pollutants to the "maximum extent practicable";
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

"Maximum Extent Practicable" (MEP) is a standard introduced by the US EPA that establishes the level of pollutant reductions that MS4 operators must achieve through implementation of a storm water management program. MEP is generally a result of emphasizing pollution prevention and source control BMPs in combination with treatment methods where appropriate. Each Permittee, such as the City, will determine what the MEP is for their program based on City-specific factors such as available program funding and technical feasibility.

Storm Water Management Plan (SWMP). The City has developed this SWMP in order to achieve MEP Standards. This process has included the thorough identification, selection, and implementation of BMPs as described herein. The City has relied on input from the community (via Carpinteria Creeks Preservation Program development and Carpinteria Creek Watershed Coalition, BMP fact sheets, and manuals while considering the budget constraints of the community. In general, the SWMP is applicable within the City's incorporation boundaries.

A storm water management program for a small MS4 is defined by the Phase II permit as a program composed of six (6) elements that, when implemented together, are expected to reduce pollutants discharged into receiving water-bodies to the MEP. These six (6) program elements, or MCMs, are listed below:

1. Public Education and Outreach on Storm Water Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

The implementation and evaluation of these six (6) minimum control measures comprise the foundation of the SWMP. As many diverse factors can dictate the specifics of a storm water management program, the City will regularly evaluate both current conditions and BMP effectiveness and, as appropriate, update BMPs and measurable goals to achieve the objective of reducing the discharge of storm water pollutants to the Maximum Extent Practicable. It may be necessary to expand or better tailor existing BMPs after implementing the minimum control measures described in this SWMP. Such changes would be based on the results of monitoring programs contained in the annual reports and developed in consultation with the Community Interest Group and RWQCB.

Notice of Intent. The City will file a Notice of Intent (NOI), Appendix A: Notice of Intent, to apply for coverage under the State of California General Permit. As required, the NOI and this SWMP contain the following information:

- The area covered by the SWMP;

- Best management practices (BMPs) for each of the six (6) Minimum Control Measures;

- Measurable goals for each of the BMPs (i.e., narrative or numeric standards used to gauge program effectiveness);

- A timeline for implementation of each measure (estimated months and years to implement each measure, including interim milestones and frequency of measurement); and

- Individual(s) or group(s) responsible for implementing or coordinating the storm water program.

Each of these topics is discussed in the SWMP. BMPs and their implementation are discussed under the appropriate MCM section. Because significant overlap exists between MCM efforts, some sections contain cross-references to other sections in order to avoid redundancy.

Total Maximum Daily Loads (TMDLs)

Total Maximum Daily Loads (TMDLs) establish numeric thresholds for water pollutants and assign proportional responsibility for controlling the pollutants. Consistent with the requirements of CWA Section 303(d), CCRWQCB identifies impaired waters and prepares TMDLs for impaired waters within its jurisdiction. As defined by CWA, impaired waters are those that do not meet water quality objectives established by the Federal and State governments, including those in the local Water Quality Control Plan. Carpinteria Creek and Carpinteria Salt Marsh have been designated as impaired based on monitoring studies conducted by the State Mussel Watch Program and the County of Santa Barbara, a number of other studies that have been completed, and general knowledge of local conditions.

Per the requirements of CWA Section 303(d), TMDLs must be prepared and implemented for all impaired waters within 8-13 years of their initial listing. Many of the high priority water bodies identified by the Central Coast RWQCB have already been addressed Carpinteria Creek and Carpinteria Salt Marsh are among the priority water bodies on the State list, and resolution of their impairments (see Table 2-3) is scheduled to commence in 2006 and be completed by 2011. While neither Santa Monica Creek nor Franklin Creek are listed by name, these are the primary watersheds supplying freshwater into the Carpinteria Salt Marsh, and it is, therefore, highly likely that corrective actions may need to take place along these creeks as well.

SWMP IMPLEMENTATION AND COORDINATION

SWMP Implementation

SWMP implementation in the City of Carpinteria will be the responsibility of the Public Works Director. The acting Public Works Director for the City of Carpinteria will draw upon staff from both the Public Works Department and the Community Development Department to implement different aspects of the SWMP. The City also maintains a number of contractors and consultants who will be responsible for implementing various aspects as well.

SWMP activities will be funded through various general mechanism's including:

- Development Impact Fees
- Measure "D" revenue
- Measure "A" revenue
- Grants
- General Fund
- Gas Taxes
- Assessment District (Right of Way)

The Public Works Director will implement this SWMP through the Best Management Practices (BMPs) described herein. As one of the BMPs, the City has committed to the development of a Watershed Management Plan to facilitate a watershed focused approach to stormwater management. It is likely that in development of the Watershed Management Plan, the City will identify additional BMPs or management measures that will facilitate SWMP implementation. The SWMP and Watershed Management Plan will therefore be implemented in coordination until appropriate revisions can be made to the SWMP.

SWMP Coordination

To maximize effectiveness and minimize duplicate efforts, the City of Carpinteria plans to implement the SWMP in coordination with other agencies and organizations, and City programs whose jurisdictions and interests overlap.

Agencies and Organizations. There are a number of agencies and organizations that work within the City of Carpinteria that are active in implementing the intent of the SWMP. These stakeholders include:

*Carpinteria Valley Association***.** The Carpinteria Valley Association (CVA) was founded in 1964, and continues its mission to preserve and enhance the rural beauty of the Carpinteria Valley, especially its open field agriculture, and to maintain the charm of Carpinteria and Summerland as small beach towns.

CVA strives to accomplish these goals by providing education and advocacy on issues related to land use, planning, and community development with an emphasis on the natural resources and environment of the Carpinteria Valley, Summerland, and the surrounding region.

Carpinteria Chamber of Commerce. The Carpinteria Valley Chamber of Commerce is an organization of businesses united to encourage a strong local economy and quality of life by promoting sound local government and an informed membership and community.

Carpinteria Beautiful. Carpinteria Beautiful is an organization to keep Carpinteria Beautiful. The program has been going on for about 15 years. Carpinteria Beautiful cleans up all of the places that have the 93013 addresses. Carpinteria Beautiful sponsors two Carpinteria pride days. They are in the spring and in the fall.

Carpinteria Creek Committee. The Creek Committee is a group of individuals who have banded together as a "friends" of Carpinteria Creek. They have been a watchdog for the effects of existing and proposed development that may have an impact on this riparian corridor.

Carpinteria Creek Watershed Coalition. The Carpinteria Creek Watershed Coalition (CCWC) is a partnership of local landowners, community groups, resource agencies, and individuals who've come together to care for Carpinteria Creek.

The Carpinteria Creek Watershed Coalition was born in 2001, when a partnership of local landowners, community groups, resource agencies, and individuals joined together to restore and protect the resources of the creek. Inspired by a shared sense of responsibility to our community, we're working together to create conditions that will allow healthy steelhead stocks to recover in the creek.

University of California Natural Reserve System. The University owns the majority of the Carpinteria Salt Marsh and manages it by way of the Natural Reserve System. The mission of the Natural Reserve System is to contribute to the understanding and wise management of the Earth and its natural systems by supporting university-level teaching, research, and public service at protected natural areas throughout California."

The Carpinteria Salt Marsh Reserve contains a critically important Southern California estuary, which supports many sensitive plant and animal species. The site includes extensive wetland and channel habitats along with some uplands and is adjacent to a sandy beach, subtidal rocky reef, and kelp beds. The reserve provides habitat for migratory waterfowl along with several plants and animals listed as endangered, such as the salt marsh bird's-beak, light-footed clapper rail, and Belding's savannah sparrow. It is also an important regional nursery for halibut and other marine and estuarine fish. As part of the Ash Avenue Restoration Project, an on-site interpretative center, teaching amphitheater, and nature trail have been provided to enhance public outreach at the Carpinteria Salt Marsh (CSM) Nature Park.

Flower Growers. The Carpinteria Valley supports a large amount of cut flower production, both outdoors and within enclosed greenhouses. Statewide the growers are represented by the California Cut Flower Commission (CCFC).

The CCFC is an organization funded by cut flower growers to do for all of them what none of them could do alone. The Commission is uniquely focused on growers and helping them survive and thrive while ensuring consumers in the United States have quick and affordable access to the freshest, highest quality flower possible. The focus of the organization is on marketing and promotions, government affairs, economic development and logistics and transportation.

California cut flower growers spend every day growing flowers, and every day there are issues that threaten their ability to do just that. The CCFC exists to be their ambassador and advocate.

Santa Barbara County. The County of Santa Barbara encompasses the areas immediately upstream of the City of Carpinteria. Through "Project Clean Water", the County administers its SWMP program to comply with a previously issued permit.

Carpinteria Valley Water District. The Carpinteria Valley Water District (CVWD) is the purveyor of water for the area within the City. It is a special district that functions separately from the City and is governed by its own elected Board of Directors. The CVWD owns and operates water supply facilities and gets its water supply from the Cachuma project, the State Water Project, and local groundwater.

Carpinteria Sanitary District. The Carpinteria Sanitary District (CSD) owns and maintains the City sewage collection and treatment system. Like the water district, they are also a separate special district governed by an elected Board of Directors. The sewage is treated to meet discharge requirements and then flows by way of an outfall to the ocean.

Santa Barbara ChannelKeeper. Santa Barbara Channelkeeper is a 501(c)(3) non-profit organization whose mission is to protect and restore the Santa Barbara Channel and its watersheds through citizen action, field work, education and enforcement.

Channelkeeper works on the water and in the community to monitor local waterways, restore aquatic ecosystems, advocate for clean water, enforce environmental laws, and educate and engage citizens in identifying and devising solutions to local pollution problems. Our goals are to eliminate industrial and other pollution to the Channel, eliminate beach closures, protect local wetlands, monitor water quality, and monitor and restore aquatic

Heal the Ocean. Heal the Ocean is a volunteer organization that is attacking all sources of ocean pollution. They follow a basic premise: instead of lobbying the government for action on ocean-pollution issues, they study the problem themselves and recommend practical solutions.

They undertake scientific studies to identify sources of pollution - from leaking sewer pipes, offshore sewage disposal, leaking coastal landfills or septic systems.

They test for viruses in the ocean, creeks and groundwater to determine if human sources of pollution are present, and what are the likely sources. In cooperation with Santa Barbara County, Heal the Ocean pioneered both the use of environmental DNA testing and virus testing in the local area.

They have commissioned numerous engineering studies and environmental assessments to determine the cost and feasibility of replacing septic systems, upgrading sewage treatment plants and installing stormwater treatment technology.

Carpinteria Unified School District. The Carpinteria Unified School District (CUSD) provides public education services to students in the Carpinteria Valley, with district boundaries reaching south to the Ventura County line and north to the community of Summerland. The District, serving approximately 2,500 grades K-12 students, has nine schools – one comprehensive high school, two small alternative high schools, one middle school, and four elementary schools. Eight of the nine schools are located within the Carpinteria city limits. One elementary school is located in Summerland. The School District has its own SWMP that it implements.

South Coast Watershed Resource Center. This organization is a community resource for water quality education and activities that promote clean creeks and ocean water.

Built in 1999 at the request of the County of Santa Barbara in response to the growing concern about the South Coast's water quality, the Watershed Resource Center (WRC) is a site for school and community education programs that make the connection between healthy watersheds and our own personal habits.

The WRC is managed by Art From Scrap's Green Schools environmental education program.

City of Carpinteria Programs. The SWMP will also be implemented by the City in coordination with their Carpinteria Creeks Preservation Program (CCPP). The intent of the CCPP overlaps with the intent of the Storm Water Management Program. These two programs will be administered by the City of Carpinteria in consideration of each other to prevent overlapping efforts and to share information and resources.

The Carpinteria Creeks Preservation Program Final Document was prepared as an implementation tool to the City of Carpinteria General Plan/Local Coastal Plan to guide the preservation and restoration of creeks located within the City of Carpinteria, which is entirely within the Coastal Zone. The Program was developed by the City to characterize local creeks and provide the detailed regulations needed to ensure the protection and restoration of local creeks, and City compliance with regulatory requirements including those related to the Federal Clean Water Act, Federal Endangered Species Act, California Porter Cologne Water Act, California Fish and Game Code, and the California Environmental Quality Act.

*Program Goals***.** The Program goals are:

1. Preserve, restore and enhance local creek and riparian ecosystems, including geomorphology, hydrology, water quality and biological communities. This will

ensure the preservation and enhancement of beneficial uses of local creeks, transport, floodplain and beach nourishment, water filtration, water supply and recreational and aesthetic enjoyment, education and interpretive opportunities and scientific research.

2. Establish regulations to guide the City towards compliance with federal, state and local regulations that pertain to local creeks, including Phase II NPDES stormwater requirements.

3. To the greatest degree feasible, balance competing interests between beneficial uses of local creeks

4. To provide background information and mitigation measures for use in the environmental clearance document required by the guidelines established under CEQA

Work Completed To-Date. As part of the Creeks Preservation Program, the City has completed the following work:

- research of baseline conditions
- review of federal, state and local regulations
- evaluation of existing City regulations for deficiencies
- development of regulations to ensure Program Goals are achieved
- Completion of comprehensive environmental review of the Program, pursuant to CEQA
- City of Carpinteria City Council Review, approval and submittal to Ca Coastal Commission pursuant to Public Resources Code Section 30510 and the California Code of Regulations Section 13551 (b)(2).
- Coastal Commission approval
- Selection of a Creeks Program Coordinator
- Annual informational mailings to creek-side residents
- GIS mapping of Environmentally Sensitive Habitat Areas
- Annual creek walks to monitor creek health and change
- Development of a Creek Clean-up Data Collection card and organization of bi-annual creek clean-ups

The document describes the geologic, hydrologic, geomorphologic, water quality, biological resources, and land use setting for existing conditions. For the water quality section, the existing water quality conditions are described for each of the four watersheds through which the City traverses. The existing conditions summarize monitoring results from May 2000 for eight locations throughout Carp Creek, Santa Monica Creek, Franklin Creek and Lagunitas Creek and compare results to recent monitoring studies conducted by the County, Project Clean Water, and UCSB.

Relevancy to SWMP. The document evaluates relevant regulations in the City's General Plan/Local Coastal Plan and Municipal Code and identifies additional regulations necessary to ensure compliance with federal and state regulations. The document specifically states what additional regulations are needed to ensure City compliance with Phase II NPDES stormwater regulations.

STORM WATER PROGRAM ELEMENTS

1. PUBLIC EDUCATION AND OUTREACH

The Public Works Director of the City of Carpinteria will be responsible for implementing this SWMP element. The City may coordinate with the School District and the County to combine efforts to most effectively reach the community.

The goal of this control measure is to facilitate greater public awareness of the sensitivity of local surface waters, their beneficial uses, the detrimental effects of polluted storm water and illicit discharges, and measures that can be taken to reduce storm water pollution. The City will accomplish this by preparing educational materials and making them available to the public through a variety of outreach efforts. Educational efforts will focus on storm water issues of local concern, pollution from sediments, nutrients, bacteria, petroleum hydrocarbons, metals, pesticides, herbicides, trash and debris. Specific BMPs to be implemented as part of the Public Education and Outreach MCM are provided below.

1.1 Best Management Practices

The City will implement all BMPs listed below. Examples of available brochures and other public education materials are included in Appendix C. The City will continue to implement their existing programs and expand on their effectiveness. Handouts prepared in the future, will be included in annual reports.

1.1.1 Distribution of Educational Brochures

The City will begin to distribute a series of informational brochures on storm water quality. Brochures will address specific activities that contribute to stormwater pollution (such as agriculture, construction, etc) or specific populations that may perform a variety of activities (residents, tourists). These materials will be distributed in both Spanish and English. These brochures will continue to be distributed at special events, by mail, at community interest group meetings, through enforcement activities, and by request.

Materials distributed will also contain information in related to the Water Quality Hotline, the City's Stormwater Management website, and other locations at which additional relevant information may be found.

1.1.2 Compile List of Discharger Communities

The City will begin to develop a distribution list that categorizes businesses and organizations based on the activities that they engage in. This will help the City target discharger communities with information that is most pertinent to their activities. For example, the distribution list will identify businesses associated with the development industry. These businesses will be targeted to receive information in regards to policy or regulation changes and BMPs related to Construction and Post-Construction activities.

1.1.3 Alternative Information Sources

The City drafts articles related to stormwater management for incorporation into the City's "Trash Flash" newsletter. Trash Flash is a newsletter distributed to all residents via mail by the City which addresses keeping the community clean of trash and other sources of pollution. The City will draft three articles annually related to stormwater management for inclusion into the Trash Flash newsletter. The City will draft future articles based on prevalent issues at the time of publication.

Additionally, the City will develop a webpage accessible through the City's website to disseminate important information about the City's stormwater management program, resources available (i.e. hotline number, hazardous waste disposal sites, etc), Best Management Practices for specific activities, and links that might provide more detailed information. The City will list the web site address in materials distributed to the public under BMP 1.1.1,

1.1.4 A Library of Educational Materials

The City will refer interested individuals both to online resource libraries (through links on the City's website to organizations such as CASQA, the California Coastal Commission, etc) as well as to the resource library located at the South Coast Watershed Resource Center. The South Coast Watershed Resource Center (SCWRC) was built in 1999 at the request of the County of Santa Barbara and is currently administered by Art from Scrap's Green School's environmental education program. The SCWRC is a site for school and community educational programs that make the connection between healthy watersheds and personal behavior. The library is available to educators and members of the public.

1.1.5 Event Participation

The City participates in various public events each year which may include Creek Week (October), the annual Household Hazardous Materials Collection, the Avocado Festival, Rods and Roses, St. Joseph's carnival, holiday parades, etc. The City participates in these various public events by attending, advertising for the event on the City website, hosting the event in one of many City facilities, and hosting public information booths where brochures on stormwater pollution best management practices are made available as well as additional stormwater information.

The City will continue to participate in two events each year where public education materials are handed out to attendees. Informational brochures and handouts provided will be specific to the type of event and specific issues of relevance at the time.

1.1.6 Educational Programs for School Children

The City will work with Carpinteria Unified School District to implement a series of programs that educate school children in grades K – 6 about watershed and water quality issues. The

City and school district will work together to distribute materials such as a coloring books on non-point source pollution, stickers, and storm drain marker decals.

In the past, the City implemented a program in coordination with the County of Santa Barbara and an organization called Art from Scrap where presentations were made by trained professionals to students grades K-6 on watershed issues. The funding for this program has since been revoked by the County of Santa Barbara for implementation in the City of Carpinteria. The City will develop a similar program with Art from Scrap for implementation within the City of Carpinteria.

1.1.7 Storm Drain Stenciling

In 2003, the City marked all storm drain drop inlets in major business districts and residential areas with markers that say “Don’t Dump – Drains to Ocean”. The City will continue to stencil all new or unmarked storm drain drop inlets and will have 100% of storm drains City-wide marked by the end of the permit term. 20% of all storm drains will be inspected each year to ensure that the stenciled message is maintained. Where messages are weathered, they will be repainted.

The logo used to mark the storm drains will be included in print materials and on the website. This way, it will become more familiar to people, and its meaning will become more recognized without having to read the text message.

1.1.8 Stormwater Hotline

The regional Water Quality Hotline is administered by the County of Santa Barbara and is accessible at 1-877-OUR-OCEAN. Callers can report water quality issues or get information on the best way to manage storm water for a variety of circumstances and activities.

The Hotline will be advertised in printed materials that are distributed per BMP 1.1.1 and will be noted on the website as well as on posters that the City uses in presentations.

1.1.9 Media Campaigns

Each year, the City will run three print articles and one television campaign related to stormwater pollution prevention. The print articles will be run through the quarterly newsletter distributed by the City called the “Trash Flash”. The City will draft three articles related to a pertinent specific issue in stormwater pollution prevention per year for inclusion into the Trash Flash newsletter.

The City will also develop one television program related to stormwater pollution prevention each year to be broadcast on the Government Access Channel (Channel 18). The City will develop one new program each year which will be broadcast at least four times that year at different times in order to reach the maximum number of people possible.

Additionally, the City will be coordinating with the County of Santa Barbara to develop a long-term public outreach strategy utilizing radio and television resources. The long-term

media campaign strategy will identify opportunities to educate the public about general water quality issues as well as more specific issues such as what constitutes and illicit discharge, what types of measures can be taken to prevent pollution from construction sites, etc. Campaigns may include outreach for Earth Day (spring) and Creek Week/Watershed Month (October) events. The long-term media campaign will take into consideration both English and Spanish speaking communities.

1.1.10 Public Opinion Survey

The City will coordinate with the County to support regional public opinion surveys in regards to existing levels of community awareness on storm water issues. The County sponsored such a survey in 2001. Public opinion surveys will be distributed during Year 5 of the permit term as a stuffer in the water bill sent out to all residents. The information gathered from the public opinion survey will provide a basis upon which to evaluate the program after the first permit term.

1.2 Measurable Goals

The City will educate the general public about storm water quality issues and their role in the solutions by outreach to the community, and school children. In general, program effectiveness will be assessed after the first permit term (5 years) based on a comparison of results of the public opinion surveys conducted during 2001 and Year 5. This comparison will provide a basis from which to evaluate effectiveness based specifically on improvement in awareness as measured by the survey. Specific measurable goals for each BMP are listed below.

Table 1-1
BMP Implementation: Public Education & Outreach

Year	BMP #	Implementation Details	Pollutants of Concern	Measurable Goal	Implementing Agency
1-5	BMP 1.1.1 Storm Water Quality Brochures	The City will develop Brochures and Fact Sheets in both English and Spanish. Brochures and Fact Sheets will be available at City offices, local libraries, and on the City's website. Brochures will be distributed via mail periodically with utility bills. .	All	Brochures will be developed by the end of Year 1. Distribution will be documented. The target audience, number of brochures distributed and mechanism for distribution will be recorded.	City
1	BMP 1.1.2 Compile Categorized Distribution List	The City will categorize a list of businesses and organizations based on the type of activities they might conduct and the types of Best Management Practices that would be most applicable to them. The list will be used to guide outreach and target audiences.	All (in particular Hydromodification and Nutrients)	The list will be created and categorized by the end of Year 1.	City
1-5	BMP 1.1.3 Alternative Information Sources	The City will develop a website accessible through the City's general website to disseminate important information about the City's SWMP and to provide information on resources available. The City will draft articles for	All	Develop the website by end of Year 1. The website will be updated quarterly to include new information available. The website will be advertised on print materials. The City will draft three articles on stormwater pollution prevention each	City

		inclusion into the newsletter "Trash Flash"		year for inclusion into "Trash Flash".	
1-5	BMP 1.1.4 Library of Educational Materials	The City will refer people to the resource library at the South Coast Watershed Resource Center. The City will take an active role in helping to maintain the library with up to date materials.	All	The library collection will be reviewed annually to ensure up to date materials/ information are available. Usage and topics of most interest will be tracked	City/County of Santa Barbara/ Art from Scrap
1-5	BMP 1.1.5 Event Participation	The City will provide educational storm water quality displays for use at local events such as public meetings, hazardous waste collection events, festivals, etc. City staff will be available at such events for public discussions with interested members of the community.	All	The City will display educational storm water quality information at two events a year. Displays will address the specific target audience. Event attendance, number of brochures distributed and responses will be documented.	City
2 & 4	BMP 1.1.6 Educational Programs for School Children	The City will work with the Carpinteria Unified School District to organize guided field trips to local creeks, beaches and the Carpinteria Salt Marsh; provide guest lecturers at school assemblies and classrooms and discuss storm water issues in science courses. The City will coordinate with Art from Scrap to develop	All	Create a storm water quality curriculum. Provide water quality education to 50% of all school aged children (grades K – 8) every 2 years.	City/Carpinteria Unified School District/Art from Scrap

		and deliver a watershed curriculum to students in grades K-6.			
1-5	BMP 1.1.7 Storm Drain Stenciling	Signs will be placed in highly visible locations to mark local creeks and their tributaries. Also, the City will continue to stencil the message such “Do Not Dump: Drains Directly to Creek/Ocean” at catch basins and along open channels.	All	Inspect 20% of marked storm drain inlets per year and repaint as necessary. Inspect and paint/repaint 100% of storm drain inlets by the end of the permit term.	City
1-5	BMP 1.1.8 Storm Water Hotline	The City will support usage of the regional Water Quality Hotline. The City will advertise the hotline number on the Storm Water webpage as well as on print materials. The Hotline will provide a means by which residents can report stormwater quality issues and also obtain stormwater quality information.	All	Promote use of hotline through printed materials and City website.	City/County
1-5	BMP 1.1.9 Media Campaign	The City will run three print articles and one television campaign each year. The City will partner with the County and other South Coast cities to develop long-term public outreach strategy utilizing radio and television to provide a uniform message on the importance of storm	All	Develop long-term public outreach strategy with the County and other South Coast cities. Run three articles in “Trash Flash” and create one television program for broadcast on Channel 18 2	City/County

		water quality.		media campaigns per year.	
5	BMP 1.1.10 Public Opinion Survey	Conduct survey to determine level of knowledge and demographics of audience.	All	Conduct a survey in year 5, in coordination with the County, to determine effectiveness of programs and future program direction.	City/County

1.3 Reporting

The data collected for each measure (such as number of brochures distributed, number of events attended, number of presentations given, etc) will be compiled, reviewed and summarized in annual reports. Significant variance from targets will be assessed and discussed in annual reports. Progress in implementing goals that have multi-year timelines will be reported annually. Implementation of BMPS will be fine tuned as needed. Measurable goals will be adjusted as appropriate, and the basis for any changes will be included in the next annual report.

2. PUBLIC PARTICIPATION AND INVOLVEMENT

The Public Works Director of the City of Carpinteria will be responsible for implementing this SWMP element.

The goal of this control measure is to facilitate public participation and involvement in the development, implementation, and periodic review of the SWMP, and to encourage volunteer efforts. The benefits of this include, improving public knowledge of local storm water issues, receiving public input on potential solutions, gaining public support for and compliance with the SWMP, and developing a volunteer workforce to help implement the SWMP and related efforts. Facilitating public participation and involvement will be accomplished by implementing the BMPs provided below.

2.1 Best Management Practices

2.1.1 Creation of a Community Interest Group

The City will develop a Community Interest group that will hold meetings quarterly or as needed to get the public involved in critical community storm water issues. The community interest group meetings will feature updates on the City and regional storm water programs, guest speakers, and will provide the opportunity for community members to discuss any issues of concern. Attendance is expected to vary from approximately 10 to 50 people and participation will be solicited from the following community groups (described in more detail in SWMP Implementation and Coordination):

- Carpinteria Valley Association
- Carpinteria Chamber of Commerce
- Carpinteria Beautiful
- Creeks Committee
- Carpinteria Creek Watershed Coalition
- University of California Reserve System
- Flower Growers
- Heal the Ocean
- Santa Barbara ChannelKeeper
- County of Santa Barbara
- Carpinteria Valley Water District
- Carpinteria Sanitary District
- Carpinteria Unified School District
- South Coast Watershed Resource Center

The City will maintain an email and mailing list for contact and notification purposes. Those on the list will be notified of regular meetings, announcements, and other events via email. In addition, City staff will work with nonprofit groups and the Regional Water Quality Control Board to explore alternative public forums on water quality.

2.1.2 Coordinate with Project Clean Water Stakeholders Committee

The City will continue to coordinate with the Project Clean Water Stakeholders Committee that was implemented by the County of Santa Barbara starting in 1998. The Stakeholders Committee consists of representatives of community organizations, local government agencies, staff from Santa Barbara City College and UCSB, and other interested individuals. The County's stakeholders group was divided into several working groups to evaluate potential water quality problems, develop solutions to specific problems or issues, and make recommendations for implementation. The City will monitor the activities of these working groups and will coordinate with the Stakeholders committee where appropriate.

2.1.3 Regional Agency Coordination Meetings

Since 1998, the City has participated in the Santa Barbara County Intergovernmental Committee comprised of local, state and federal agencies with interests in local stormwater issues. The Committee meets quarterly and includes both regulators (such as RWQCB) and regulated entities such as the City. The City will continue to participate in the Intergovernmental Committee. Topics for discussion are suggested by participants and include development and interpretation of non-point source regulations, opportunities for cooperative efforts, emerging technology and sharing of water quality information. On behalf of the City and other local interests, the County is a member of the California Storm Water Quality Association (CASQA), which facilitates the exchange of information and joint research and efforts among Phase I and Phase II agencies statewide. CASQA meets on a bimonthly basis.

2.1.4 Participation in the TMDL Stakeholders Process

The City of Carpinteria anticipates the development of TMDLs for the water bodies and associated impairments listed on the State Water Resources Control Boards 303(d) list. The listed water bodies that flow through Carpinteria and their impairments are summarized in Table 1 in the City of Carpinteria Overview section.

As part of TMDL development, the Regional Water Quality Control Board initiates a series of public meetings to get all stakeholders involved in the process. The City will track TMDL development and will participate in the stakeholders process by attending and participating in public meetings and the general TMDL development process. In addition, the City will report on TMDL status at the Community Interest Group meetings.

2.1.5 Volunteer Group Formation

The City will continue to support volunteer organizations that carry out the goals of the SWMP such as Carpinteria Beautiful, Carpinteria Creeks Committee, Carpinteria Creek Watershed Coalition, Santa Barbara ChannelKeepers and Heal the Ocean. The City will support such groups by providing links to their websites (if available) on the City's stormwater webpage and by advertisement of volunteer events. Representatives from such organization will be encouraged to attend Community Interest Group meetings and will be able to advertise special events and activities at such gatherings.

2.1.6 Participation in the Carpinteria Creek Watershed Coalition

The Carpinteria Creek Watershed Coalition is a partnership of local landowners, community groups, resource agencies and individuals joined together to restore and protect the resources of Carpinteria Creek. In general, activities and work conducted by the CCWC are aimed at restoring desirable steelhead habitat conditions. The CCWC holds monthly meetings to discuss local and regional events as well as CCWC sponsored projects which in the past have included habitat restoration, educational signage, public tours, etc. The CCWC meetings attract attendance from organizations and agencies such as the Carpinteria Creek Committee, Channel Islands Restoration, Santa Barbara County Agricultural Commissioner's Office, California Trout, California Department of Fish and Game, etc.

The City participates in CCWC meetings and activities and even brings projects that will require City backing to the City Public Works Department. The City also provides the Carpinteria City Hall as a meeting location every month. The City will continue to participate in the CCWC activities and will encourage coordination amongst local interest groups in implementation of the SWMP.

2.1.7 Community Clean-Ups

The City will participate in the organization two creek clean-up events each year in coordination with Creeks Preservation Program efforts and/or volunteer efforts (i.e. by the Carpinteria Creek Watershed Coalition). The creek-clean-ups will be focused on two creeks each year, such that creek clean-ups will be organized for each creek in the City once every two years.

The creek clean-up events will provide volunteers the opportunity to clear trash and other potential pollutant sources from the local creeks and will also foster a connection with and sense of responsibility for the City's natural resources amongst its citizens. The City will advertise community clean-up program events through volunteer groups, by contacting participants of the Community Interest Group and via the City's website.

2.2 Measurable Goals

Public involvement and participation has been essential to the development and ongoing activities of the City storm water program, insuring that our program reflects community

concerns and priorities while improving creek and ocean water quality. Measurable goals for each BMP are listed below.

Table 2-1
BMP Implementation: Public Participation

Year	BMP	Implementation Details	Pollutants of Concern	Measurable Goal	Implementing Agency
1-5	BMP 2.1.1 Creation of a Community Interest Group	The City will develop a Community Interest Group that will hold meetings quarterly or as needed to get the public involved in critical community storm water issues. .	All	Meetings will be held quarterly. Meeting announcements will be posted on the City's website and will be emailed to the interested distribution list.	City
1-5	BMP 2.1.2 Project Clean Water Coordination	The City will continue to coordinate with Project Clean Water Stakeholders Committee.	All	The City will monitor the Project Clean Water Stakeholder Committee activities and will participate when relevant to City of Carpinteria.	City
1-5	BMP 2.1.3 Regional Agency Coordination	The City has and will participate in the Santa Barbara County Intergovernmental Committee comprised of local, state and federal agencies with interests in local storm water issues.	All	The City will participate in quarterly meetings to keep abreast of general storm water trends and issues.	City, local, state and federal agencies
1-5	BMP 2.1.4 Participation in TMDL Stakeholders Process	The City will participate in the TMDL Stakeholders process for all applicable TMDLs.	All	The City will participate in applicable TMDL Stakeholder meetings.	City

1-5	BMP 2.1.5 Volunteer Group Formation	The City will support the organizations that organize relevant volunteer activities through free advertisement and incorporation into City-organized groups.	All	City will promote at least 2 volunteer events each year. Events goals and participation will be documented. These programs will be listed on the City's website and relevant volunteer activities advertised on the website as well.	City
1-5	BMP 2.1.6 Participation in Carpinteria Creek Watershed Coalition	The City participates in Carpinteria Creek Watershed Coalition meetings and sponsored activities.	All	The City will continue to participate in CCWC meetings. The City will document all attended meetings and all activities/projects brought to the City by the CCWC.	City
1-5	BMP 2.1.7 Community Clean-ups	The City will participate in the organization and advertisement of at least two major public creek clean up events per year in conjunction with Creek Week.	All	Implement at least two public creek clean up events per year. Document clean-up goals and participation.	City

2.3 Reporting

The data collected for each above BMP will be compiled, reviewed and reported in annual reports. Significant variance from targets will be assessed and discussed in annual reports. Progress in implementing goals that have multi-year timelines will be reported annually. Implementation of BMPS will be fine tuned as needed. Measurable goals will be adjusted as appropriate, and the basis for any changes will be included in the next annual report.

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

The Public Works Director of the City of Carpinteria will be responsible for implementing this SWMP element.

This control measure requires the development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping. The City's program incorporates cooperation amongst a number of partners including the public and other local agencies in order to maximize effectiveness and balance resources.

An illicit discharge is defined by the EPA as "…any discharge to a MS4 that is not composed entirely of storm water and not authorized by an NPDES permit." This includes improperly disposed of materials, such as animal and human wastes, trash, and discharges from mobile carpet cleaning operations, that can enter the storm water system and cause health and safety concerns as well as other receiving water impacts. Illicit discharges are a particular concern for the City of Carpinteria because of their tendency to be high in pathogens, which may be indicated by fecal indicator bacteria. Fecal indicator bacteria are pollutants of concern for the SWMP as they are included in the existing 303d impairments for several of the City's receiving waters.

Discharge sources therefore must be controlled and illicit discharges prevented and/or punished. Controlling and eliminating illicit discharges through a comprehensive detection and abatement program will protect the public health and safety. Prevention will also be enhanced through education on what constitutes illicit discharges, the hazards and consequences of illegal disposal, safe disposal options, and incentives for safe disposal. Legal enforcement procedures are also helpful in preventing illicit discharge recurrence.

3.1 Best Management Practices

3.1.1 Storm Drain Mapping

In order to understand the extent of the area covered by storm water collection drains, the storm water system has been mapped. This information is available in the offices of the Public Works Department (phone 805.684.5405). The information is in the process of being digitized and may be available in digital format in the future via the website or upon request.

This information will assist the City in identifying specific parcels and/or general land uses that contribute to an illicit discharge location, thereby facilitating the identification of the source.

3.1.2 Education & Outreach

The most effective action in the elimination and prevention of illicit discharges is the education and cooperation of a concerned public. The efforts for educating the community about controlling illicit discharges are discussed in greater detail in Section 1.0 - Public Education and Outreach.

In its education and outreach efforts, the City will target potential illicit dischargers, such as restaurants, mobile carpet cleaning companies, greenhouses and nurseries, for receipt of distribution materials that focus on 1. defining illicit discharges, 2. alternatives to illicit discharges, 3. City program (inspections, etc) regarding illicit discharges and 4. City authority to enforce codes related to illicit discharges.

The City will also continue to organize Anti-freeze, Batteries, Oil and Paint collection events which take place the 2nd and 4th Saturday of each month at City Hall. Additionally, the City will continue to operate the Used Oil Drop-off Center, which is open at the City Hall Monday through Friday from 7:30 to 4 pm. These City services will be advertised on the City stormwater website.

3.1.3 Identification and Elimination of Illicit Discharge Sources

The City's program for identification and elimination of illicit discharge sources comprises two parts:

1. Spill and Complaint Response

2. Field Investigation and Abatement

These two program elements are discussed in more detail below. City Planning, City Parks, the Carpinteria-Summerland Fire Protection District, the Sanitary District, the Water District and other agencies are all engaged in detection and elimination of illicit discharge activities.

Spill and Complaint Response

Spill and complaint calls may be received directly from the public, from City staff doing routine field work, from facility managers and from other agencies. Spill and complaint calls are an integral part of the identification and education process as they call specific situations to the attention of the City that may otherwise have been overlooked. Complaints may also be received via the Project Clean Water Hotline. Spill and complaint calls are normally directed to Public Works staff.

Once the call is received, Public Works staff will go through the following steps in identifying the characteristics of the discharge and the steps required to mitigate further impacts and prevent related future discharges.

Record information regarding location, type of spill or discharge, date and time of complaint into an electronic file, Identify and contact other agencies that may have jurisdiction over the location.

If other agencies have jurisdiction over the spill/discharge location, ensure follow-up is taking place by their staff upon notification. If necessary, follow-up by calling back after the initial notification either the same day or next day.

If the spill/discharge is within City's jurisdiction, visit the site to locate and confirm the discharge, and identify the source. Determine whether the discharge is polluted.

If determined to be polluted, Public Works staff contacts the individual responsible and requires that individual to immediately contain or clean up the spill/discharge. If the individual is not

available/known, further research is conducted and contact is pursued via phone or mail. Containment/abatement may include stopping the activity, turning off the water source, removing polluted material, or other actions.

Public Works staff will issue a Notice of Violation (NOV) to the responsible discharger which describes the violation and lists BMPs that will abate the violation. The NOV will explain when the discharger must respond by as well as a warning that fines may be issued if the violation continues.

Public Works staff will follow up to confirm that the discharge is abated either the same day or a future date depending on the violation and actions required.

Fines will be issued if there is a reoccurrence of the discharge following the abate date. A new fine can be issued each day that a discharge continues, or for each reoccurrence of the discharge.

Response actions are recorded and tracked in a database to confirm abatement and follow-up and to prevent reoccurrence.

Field Investigation and Abatement

The City also conducts ongoing field investigations in order to further identify illicit discharges and to enforce City stormwater policies. Field investigations focus on residential areas, business areas, open channels and storm drain inlets and outfalls. City staff conducting these inspections are trained to watch for and respond to illicit discharges when out in the field. Areas with known previous problems are prioritized for inspection as well as areas having a high percentage of businesses such as restaurants and automotive service repair or a need for maintenance activities such as building washing. City staff may also discover places where solid waste has been discarded into the creek or along the creek banks. To address these issues, letters and informational brochures are sent to property owners whose parcel is clearly identified as the source of contamination. For example, if a large pile of green waste is seen directly on the creek bank behind a home, a letter would be sent to the owner of that parcel explaining the impacts green waste has on water quality and outlining alternative methods of disposal or composting of green waste.

If illicit discharges are discovered during routine field investigations, Public Works staff will investigate to confirm the sources of the pollutants and follow the same enforcement/abatement measures discussed above for spill and complaint response.

General Prevention Approach

While the City's response to illicit discharges is abatement oriented, the City's general approach to illicit discharge elimination is education. The City would like to prevent illicit discharges through educating the public on what constitutes an illicit discharge, how it affects human health and water quality and how the problem may be eliminated through best management practices. Education will be used in combination with legal enforcement in order to achieve elimination of the illicit discharge.

Educating the general public, business owners, industries, school children, teachers, and regulatory personnel on the hazards associated with illegal discharges and improper disposal of

waste is being accomplished in a number of ways. A detailed discussion on storm water educational outreach and participation is made in Sections 1 and 2 of this document. Activities to identify and eliminate illicit discharges are summarized below:

3.1.4 Coordination with Jurisdictional Agencies

Illicit discharges into the City's storm drain system may be related to or fall under the jurisdiction of agencies other than the City of Carpinteria. These other agencies having an interest in illicit discharges include:

- The Santa Barbara Flood Control District
- Carpinteria/Summerland Fire Protection District
- Carpinteria Sanitary District

Co-operation with other concerned agencies to detect and eliminate illicit discharges and illegal connections enhances the effectiveness of illicit discharge control. Special Districts that serve City areas are essential partners in implementation of the City's NPDES SWMP. Jurisdictional overlaps related to illicit discharge elimination and coordination opportunities are described below.

Santa Barbara Flood Control District:

The Santa Barbara Flood Control District and City of Carpinteria have a joint powers agreement that describes the authority and responsibility of each entity. Essentially, the Flood Control District owns, operates and maintains all creeks and channels that traverse the City. In addition, the District maintains the sediment basin on Via Real near Cravens Lane. Additional assistance during sever storm evens, such as manpower and equipment is provided.

Carpinteria/Summerland Fire Protection District

The Fire District is responsible for inspecting sites and monitoring their compliance with hazardous materials, best management storage practices, and spill response. Fire first responders and the County of Santa Barbara hazardous materials response team, depending on the hazard level and severity of the spill, may make a spill response. Emphasis is made on containment and cleanup with public health and safety as the foremost consideration in an environmentally sensitive manner.

Labeling and storage of hazardous material is within the jurisdiction of the Fire District. For new businesses that use or store hazardous materials, conditions of approval are included in the standard conditions and mitigation measures enforced by this department. These require that a safe, storage area for pesticides, herbicides, and fertilizers be designed to contain spills. In addition, a Hazardous Materials Business Plan must be submitted to the Fire Department for review and approval for each business in order to detect potential hazards associated with the chemicals.

Carpinteria Sanitary District

The Carpinteria Sanitary District was created in 1928 and serves the City of Carpinteria and a portion of the surrounding unincorporated areas within the County of Santa Barbara. The boundaries of the 2.4 square mile service area extend from Bailard Road on the east to Foothill Road on the north to Toro Canyon Creek on the west and the Pacific Ocean on the south.

The Carpinteria Sanitary District utilizes a number of new technological tools to facilitate an ongoing maintenance program for the District's sewer system. This program reduces the potential for domestic and industrial waste to be discharged to creeks, storm drains, and groundwater. Carpinteria Sanitary District also employs procedures designed to discover illicit discharges and illegal connections to the storm sewer system. These include:

Good Housekeeping. Good housekeeping and preventative maintenance of facility equipment and machinery to capture and prevent spills and discharges.

Smoke testing of the District's sewer system. Smoke testing is used to detect interconnections and leaks (cross connections) between the sewer system and the storm drain system, groundwater, and creeks. The District also performs smoke testing to detect illicit storm drain connections to the sewer, including residential rain gutters and other hard piped connections collecting surface runoff to the sewer. Diverting storm water discharge away from the sewer prevents sewer overflows to storm drains and creeks in wet weather conditions.

Closed Circuit Television Video. Closed circuit television (CCTV) video of sewer lines is part of their ongoing program to assess the condition of the sewer lines. As part of their maintenance program the District can prioritize problem areas and detect and fix leaks, plugs, root balls, oil and grease buildup, and replace aging sewer lines.

Geographic Information System (GIS). Carpinteria Sanitary District has developed a GIS which is currently in use. The District is able to closely monitor the sewer system using the Geographic Information System. The GIS contains data on location, age, size and construction of the pipelines and is used to create maintenance plans for the 39.5-mile pipeline system to treat problematic areas on a priority basis. Preventative maintenance reduces spills and accidental breaks and thus reduces discharges to the storm water system.

Development of public education programs. The District holds classes for young people to teach them about the hazards of illicit discharges and illegal connections.

3.1.5 Review Existing Policies With Respect to Illicit Discharge

Existing municipal codes related to illicit discharge identification and abatement will be reviewed. The City will evaluate existing policies to identify gaps in the code coverage with respect to illicit discharge prevention, identification, abatement and enforcement and to ensure that supplemental codes do not conflict, interfere with, duplicate or negate existing law.

3.1.6 Develop Municipal Code Language to Ensure Illicit Discharge Authority

Once the municipal code review has taken place, the City will develop municipal code language to strengthen existing City procedures and authorities if necessary. Additional language will be developed if based on the review; the municipal code does not define illicit discharges and enforcement procedures adequately or provide the City with the authority to implement the Illicit Discharge Program.

The following discharges may be exempted from being regulated discharges unless they are determined to be a significant source of pollution or a nuisance.

Table 3-1: Discharges Exempted from SWMP Regulation

Irrigation water	Emergency fire fighting discharges
Landscape irrigation	Springs
Diverted stream flows	Water from crawl space pumps
Rising ground waters	Footing drains
Lawn watering	Dechlorinated swimming pool discharges
Foundation drains	Uncontaminated pumped ground water
Air conditioning condensation	Individual residential car washing
Discharges from potable water sources	
Street wash water	Waterline Flushing
Flows from Riparian Habitats and wetlands	

3.1.7 Geographically Assess Potential for Illicit Discharges

The City, within the first year of the permit term, will develop a Watershed Management Plan to identify watershed specific issues and measures to manage such issues in the near-and long-term. As part of the Watershed Management Plan, the City will geographically assess the potential for illicit discharges based on land use and downstream impairments. For example, if there are known septic systems that are not connected to the sanitary sewer system, such systems will be located and assessed for potential connection to the storm drain (i.e. through groundwater). This will give the City a better idea of what types of illicit discharges one might expect at a particular location along the storm drain network and will also facilitate identification of the source.

3.1.8 Stormwater Monitoring

The City will keep track of and encourage monitoring efforts that focus on water bodies that flow through the City's jurisdiction. Each year's monitoring results will be summarized in the annual report, compared to results of previous years to gauge water quality improvement and SWMP success (if possible) and also used to update Watershed Plans as necessary.

3.2 Measurable Goals

The following measurable goals for best management practices have been selected to ensure that illicit discharges are detected, eliminated and prevented.

Table 3-2
BMP Implementation: Illicit Discharge Detection and Elimination

Year	BMP	Implementation Details	Pollutants of Concern	Measurable Goal	Implementing Agency
1	BMP 3.1.1 Storm Drain System Mapping	Review existing information to determine extent of additional mapping necessary to complete map. Utilize maps to track sources of illicit discharges.	All	Complete mapping of Storm Drain System. Complete the Storm Drain Master Plan by 12/31/08.	City
1-5	BMP 3.1.2 Education & Outreach	Continue to utilize web sites, hotline, brochures, public events, and media campaigns to educate the community.	All	See section 1.0 Public Education and Outreach measurable goals	City
1-5	BMP 3.1.3 Identification & Elimination of Illicit Discharge Sources	Respond to complaints received through City Hall and the water quality hotline, observations, and reports from field personnel.	All	Document number of inspections and enforcement actions required. Respond to complaints within 1 (one) business day of receiving complaint, referral or notice. Achieve 100% resolution on spill complaints.	City/County
1-5	BMP 3.1.4 Coordination with Jurisdictional Agencies	The City will coordinate with agencies such as the Sanitary District, Flood Control District and Fire District to ensure water quality is protected to the MEP.	All	The City will maintain communication with other jurisdictional agencies on illicit discharge issues and prevention coordination. The City will document issues that fall under other agency jurisdiction that are	City Fire District Sanitary District Flood Control District

				routed through City staff.	
1	BMP 3.1.5 Review Existing Policies	The City will review existing municipal codes related to illicit discharge to identify gaps in implementation authority.	All	Review will be complete by Year 1. Gaps in implementation authority will be identified and documented.	City
2	BMP 3.1.6 Municipal Code Review	If necessary, the City will develop language to provide additional authority to the municipal code related to illicit discharge elimination.	All	If necessary, language will be developed and adopted by the end of Year 2 of the permit term.	City
1	BMP 3.1.7 Geographic Assessment of Potential Illicit Discharges	The City will spatially assess the potential for different types of illicit discharge based on land use and information on the spatial distribution of different types of businesses.	All	The City will produce a map identifying priority illicit discharge area based on land use, business type density and downstream impairments by the end of Year 1 of the permit term.	City
1-5	BMP 3.1.8 Storm Water Monitoring	The City will keep abreast of monitoring efforts on local creeks.	All	All monitoring efforts will be documented. Results will be summarized in each annual report.	City

3.3 Reporting

Data collected with respect to the measurable goals described above for each BMP will be summarized in the annual report. Significant variance from targets will be assessed and discussed in annual reports. Progress in implementing goals that have multi-year timelines will be reported annually. Implementation of BMPS will be fine tuned as needed. Measurable goals will be adjusted as appropriate, and the basis for any changes will be included in the next annual report.

4. CONSTRUCTION SITE RUNOFF CONTROL

The Public Works Director of the City of Carpinteria will be responsible for implementing this SWMP element.

The purpose of construction site runoff controls is to prevent soil and construction waste from entering storm water. Sediment is usually the main pollutant of concern because during a short period of time, construction sites can contribute more sediment to creeks than can be deposited naturally over several decades. The resulting situation and the contribution of other pollutants from construction sites can cause physical, biological, and chemical harm to local waterways.

4.1 Best Management Practices

Under state planning law and the California Environmental Quality Act (CEQA), the City is responsible for evaluating new development and redevelopment projects. The State of California has direct jurisdiction over construction sites of greater than 1 acre.

4.1.1 Discretionary Project Review

In addition to the project review for issuance of the grading and building permit, the City conducts discretionary project reviews. In general, project applications are processed in the following manner:

1. When a new project is submitted, the planning staff prepare routing slips to send out to City departments, special districts and other regulatory agencies that might have an interest or some review authority over the project. The routing slip packets contain a cover letter, a copy of the project application, a copy of the plans and any other relevant materials. Relevant materials related to stormwater might be grading/drainage plans, soils reports, preliminary studies, etc.

2. Planning staff route the project packet to the City Engineer and Flood Control to review the project with respect to drainage and stormwater runoff.

3. The Inter-Departmental Advisory Group (IDAG) is convened, consisting of representatives from all those departments/agencies notified about a particular project, to discuss the particulars of the project in more detail. Parties generally involved include the planning staff, building inspector, engineering staff, sanitary district staff, water district staff and fire district staff. All parties at the table have had the opportunity to review plans prior to the meeting and everyone comes to the meeting with questions, comments and conditions to discuss.

4. Direction that comes out of the meeting with respect to stormwater, drainage, erosion control measures, etc, are incorporated into Standard Conditions for the project or are relayed back to the applicant with direction to make changes. If changes are required, they must be addressed before the project can be deemed complete and move on in the review process. In this way, project progress is halted if stormwater requirements are not met.

4.1.2 Grading/Building Permit Review

Following the discretionary review process, applicants move into the construction permitting phase. The construction phase starts with a plan check and culminates with inspections.

City staff review site plans for all projects submitted for a building or public works permit. Upon receipt of the project application, the City's contract plan checker for Building Permits or consulting engineer (if a grading, excavation, or street construction permit is needed) will review the plans for erosion and sediment control requirements. In all cases, the plan checker is trained to look for and request BMPs per the City of Santa Barbara BMP Manual Guidelines. It should be noted that the City experiences an average of three grading permits per year, most of which are minor in nature. City staff review the application and ensure that, erosion and control measures, appropriate to project size as required by the Municipal Code and supplemental authorities are incorporated. A project can fall into one of three size and erosion and sediment control measure categories. These are:

1. Disturbance of less than 30 yds^3 of earth – There are no erosion and sediment control measures required of projects of this size. General BMPs will be recommended to project applicants.

2. Disturbance of greater than 30 yds^3 of earth – An Erosion and Sediment Control Plan is required of projects of this size.

3. Disturbance of 1 acre or more of land – An Erosion and Sediment Control Plan is required of projects of this size. Additionally, these projects will undergo Discretionary Review.

For construction activities that do not require an erosion control plan, City staff will provide information on appropriate BMPs for various activities. City will use the EPA fact sheets for the applicable BMP activity.

For projects that do require erosion and sediment control measures, City staff will review site plans to check that appropriate measures are shown. If the permit application does not include appropriate sediment and erosion control measures, City staff will require applicants to demonstrate intended use of such measures on site plans prior to permit issuance. If the project requires review and approval by a discretionary review body (i.e. project is disturbing 1-acre or more of soil), prior to submitting for a building permit, City staff will require applicants to demonstrate specific measures on the site plans and recommend conditions of approval that bind project applicants to the implementation of the sediment and erosion control measures. After discretionary review approval but before issuance of the applicable permit, City staff will review the final project plans to ensure required erosion and sediment control measures are shown.

For projects that propose soil disturbance of greater than 1 acre, a Waste Discharge Identification number (WDID) will be required and recorded. In this way, the City verifies that the project applicant is covered under the statewide General Permit for Storm Water Discharges

Associated with Construction Activity and that they have produced a Storm Water Pollution Prevention Plan (SWPPP).

4.1.3 Inspection and Enforcement of Erosion Control BMPs

Upon issuance of a construction permit (demolition, building, grading, excavation, street construction), the enforcement of the requirements in the plans is handled by the City's Building Inspector, or by the consulting engineer. Inspections of all projects incorporating erosion and sediment control BMPs are conducted routinely by these individuals to ensure compliance with project requirements established by applicable permits. Both agents of the City are trained in the techniques required by the BMP Manual and can issue "Stop Work" notices if compliance is not achieved. Stop Work Orders can include fines that are set by the Municipal code.

Public reports of storm water violation are responded to by an inspection (within 24 hours of receipt of the compliant by the City) which is documented. All non-compliance issues will be addressed according to standard City procedure. A licensed landscape architect, qualified biologist, archeologist, agricultural advisor, or other qualified professional may be required to be present during inspections. Non-compliance is subject to construction site activity suspension ("red-tagging"), fines or both as authorized in the Municipal Code.

4.1.4 Staff Training

Project reviews are conducted by the Public Works and Community Development Departments. Review staff will be trained upon the initial issuance/adoption of the revised procedures in the Grading Ordinance. After initial training, staff will be trained annually to refresh knowledge and understanding of current practices.

Construction site inspections are conducted by the Public Works and Community Development Departments. Construction inspection staff will be responsible for understanding best management practices with respect to erosion and sediment control. These individuals will also be responsible for enforcing erosion and sediment control plans or Storm Water Pollution Prevention Plans, as appropriate. 100% of construction inspection staff will be trained annually on currently applicable regulations and compliance standards and techniques and on new City procedures and recommended practices to prevent pollutant discharge.

4.2 Measureable Goals

The following goals will be used to check progress each year as well as demonstrate the efforts made to reduce pollutants to the maximum extent practicable. The intent is to provide both an opportunity to assess and evaluate the program and a feedback mechanism to measure and update the program as appropriate.

Table 4-1
BMP Implementation: Construction Site Runoff Control

Year	BMP	Implementation Details	Pollutants of Concern	Measurable Goals	Implementing Agency
1-5	BMP 4.1.1 Discretionary Projects – Standard Conditions	Staff will be trained to implement any changes.	TSS	100% annual training of planning staff in selection and application of standard conditions.	City
1-5	BMP 4.1.2 Construction Site Plan Review	The City will monitor for proper erosion and sediment control measures for construction sites during the Construction Site Plan Review process.	TSS	The City will document the number of projects requiring erosion and sediment control measures and the types of BMPs employed. The City will require Erosion and Sediment Control Plans for 100% of projects disturbing 30 yds^3 or more of earth disturbance.	City
1-5	BMP 4.1.3 Construction Site Enforcement & Inspections	Inspections will be conducted routinely.	TSS	Minimum of two inspections per month during rainy season on 1+ acre sites. Minimum of four inspections during non-rainy season. Enforcement actions at 100% of sites where BMPs failed. 100% compliance with erosion and sediment control plans or SWPPP.	City
1-5	BMP 4.1.4 Staff Training	Staff will be trained in currently applicable regulations.	TSS	100% annual training of grading inspectors	City

4.3 Reporting

Feedback from City inspectors, RWQCB staff, construction contractors, project owners and the public will be evaluated and potential changes to the Municipal Code and its implementation will be evaluated. Significant variance from targets will be assessed and discussed in annual reports. Progress in implementing goals that have multi-year timelines will be reported annually. Implementation of BMPS will be fine tuned as needed. Measurable goals will be adjusted as appropriate, and the basis for any changes will be included in the next annual report.

5. POST-CONSTRUCTION RUNOFF CONTROL

The Community Development Director and Public Works Director of the City of Carpinteria will work together in implementing this SWMP element.

One of the best opportunities to reduce the generation of non-point source pollution from urban runoff is through planning and design, before developments are built. Once built, it is complex and expensive to correct problems. This control measure focuses on site planning and design considerations, which are most effective when addressed in the early stages of project development. Effective long-term management and maintenance are critical; therefore the best design opportunities are those with the least maintenance needs. The goal of the program is to integrate basic and practical storm water management techniques into new and redevelopment to protect water quality.

Under state planning law and the California Environmental Quality Act (CEQA), the City is responsible for evaluating new development and redevelopment projects for NPDES concerns. Therefore, the City has a key role in implementing the NPDES Phase II post-construction runoff control measures. To assure compliance with NPDES Phase II objectives, the City intends to interpret and apply its land use policies, implementation tools, and enforcement of mitigation measures to protect urban runoff.

5.1 Best Management Practices

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5.1.1 Land Use Policies

The City maintains land use policies in the General Plan/Local Coastal Plan and the Municipal Code.

The City, as part of the Carpinteria Creeks Preservation Program (CCPP), has recently conducted a review and update of the General Plan/Local Coastal Plan to better reflect goals specific to that Program. As discussed in the section describing SWMP Implementation and Coordination, the goals of the CCPP parallel the intent of the SWMP and therefore, efforts between the two programs are complimentary and will be coordinated. Relevant General Plan/Local Coastal Plan objectives are listed below.

Open Space, Recreation & Conservation Element

Objective OSC-1c. Establish and support preservation and restoration programs for natural areas such as Carpinteria Creek, Carpinteria Bluffs, Carpinteria Salt Marsh, seal rookery, Carpinteria reef, Pismo clam beds and intertidal zones along the shoreline.

Implementation Policy 10. Provide public education and information services on the community's significant natural resources including the creeks, the Carpinteria Salt Marsh, coastal bluff areas, Monarch butterfly habitat, etc., to increase community awareness of sensitive environmental habitats and their value to Carpinteria.

Objective OSC-3c. Development adjacent to the required buffer around wetlands should not result in adverse impacts including but not limited to sediment, runoff, chemical and fertilizer contamination, noise, light pollution and other disturbances.

Implementation Policy 12. Maintain a minimum 100-foot setback/buffer strip in a natural condition along the upland limits of all wetlands.

Objective OSC-6a: Support the preservation of creeks and their corridors as open space, and maintain and restore riparian habitat to protect the community's water quality, wildlife diversity, aesthetic values, and recreational opportunities.

Objective OSC 6b: Protect and restore degraded creeks on City-owned land where protection and restoration does not interfere with good flood control practices.

Objective OSC-6e: Natural drainage patterns and runoff rates and volumes shall be preserved to the greatest degree feasible by minimizing changes to natural topography, and minimizing the areas of impervious surfaces created by new development.

Objective OSC-6f: All development shall be evaluated for potential adverse impacts to water quality and shall consider Site Design, Source Control and Treatment Control BMPs in order to minimize polluted runoff and water quality impacts resulting from the development. In order to maximize the reduction of water quality impacts, the BMPs should be incorporated into the project design in the following progression: 1) Site Design BMPs, 2) Source Control BMPs, and 3) Treatment Control BMPs.

Implementation Policy 25. A setback of 50 feet from top of the upper bank of creeks or existing edge of riparian vegetation (dripline), whichever is further, shall be established and maintained for all development. This setback may be increased to account for site-specific conditions.

Implementation Policy 27. Prepare and implement a Watershed Management Plan in coordination with the County and Carpinteria Valley Water District with an emphasis on: erosion control, natural waterway restoration and preservation, wildlife habitat restoration, and water quality.

Implementation Policy 31. Develop a water pollution avoidance education program, to include distribution of literature on how to minimize point and non-point water pollution sources, and development of a curb drain inlet stenciling program to deter dumping of pollutants.

Implementation Policy 33. In order to protect watershed in the City, all development shall minimize water quality impacts, particularly due to storm water discharges from existing, new and redeveloped sites by implementing the following measures:

a) Site Design BMPs, including but not limited to reducing imperviousness, conserving natural areas, minimizing clearing and grading and maintaining predevelopment rainfall runoff characteristics, shall be considered at the outset of the project.

b) Source Control BMPs shall be preferred over treatment control BMPs when considering ways to reduce polluted runoff from development sites. Local site and soil conditions and pollutants of concern shall be considered when selecting appropriate BMPs.

c) Treatment Control BMPs such as bio-swales, vegetated retention/detention basins, constructed wetlands, stormwater filters, or other areas designated to control erosion and filter stormwater pollutants prior to reaching creeks and the ocean, shall be implemented where feasible.

d) Structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor (i.e., 2 or greater), for flow based BMPs.

e) Permits for new development shall be conditioned to require ongoing maintenance where maintenance is necessary for effective operation of required BMPs. Verification of maintenance shall include the permittee's signed statement accepting responsibility for all structural and treatment control BMP maintenance until such time as the property is transferred and another party takes responsibility. The City, property owners, or homeowners associations, as applicable, shall be required to maintain any drainage device to insure it functions as designed and intended. All structural BMPs shall be inspected, cleaned, and repaired when necessary prior to September 30th of each year. Owners of these devices will be responsible for insuring that they continue to function properly and additional inspections should occur after storms as needed throughout the rainy season. Repairs, modifications, or installation of additional BMPs, as needed, should be carried out prior to the next rainy season.

Objective OSC-7: Conserve native plant communities

Objective OSC-10a: Minimize the erosion and contamination of beaches. Minimize the sedimentation, channelization and contamination of surface water bodies.

Implementation Policy 49. Monitor surface water runoff to identify waterborne pollutants entering the Pacific Ocean. In conjunction with County and CVWD, a Watershed Management Plan should be established to prevent such contamination from occurring.

Implementation Policy 52. Ensure that soil erosion and the off-site deposition of soils is not exacerbated through development.

5.1.2 Modification and Incorporation of City of Santa Barbara Storm Water BMP Guidance Manual

The City of Santa Barbara recently developed a Storm Water BMP Guidance Manual (Manual) (June 2008) which provides strategies and guidelines for the protection of water quality and reduction of non-point source pollutant discharges to the MEP. The Manual will be referenced by the City of Carpinteria for two purposes:

- To provide interim supplementary hydromodification management policies including project size thresholds for applicability, and peak discharge and volume reduction requirements, and

- To provide post-construction BMP selection and design guidance.

The City of Carpinteria will review the City of Santa Barbara BMP Guidance Manual for applicability to the City of Carpinteria. Based on this review, supplemental information necessary to make the Manual applicable to the City of Carpinteria will be developed within 1 year of the beginning of the permit term. The modified City of Santa Barbara BMP Guidance Manual will implement City General Plan/Local Coastal Plan policies and serve as interim hydromodification measures for the City of Carpinteria. The Manual meets the intent of the CCRWQCB's February letter's interim hydromodification requirements through encouraging LID implementation, good site design, and minimization /disconnection of imperviousness (or reduction in Effective Impervious Area).

Currently, the City of Santa Barbara BMP Guidance Manual sets up project tiers based on size to determine applicable water quality BMP requirements. The project size thresholds and applicable water quality requirements implemented by the City of Santa Barbara are summarized in the following table. In the City of Carpinteria's review and modification of the BMP Guidance Manual, these requirements will be reviewed for applicability to specific conditions for development in Carpinteria.

Table 5-1. City of Santa Barbara BMP Guidance Manual Project Tiers

Tiers	Project Type	Requirement
Tier 1 (Voluntary)	SMALL PROJECTS[1] (Projects with < 500 sq. ft. of new or replaced impervious area)	Voluntary use of site design, basic, and/or storm water runoff BMP options
Tier 2 (Basic Requirements)	MEDIUM PROJECTS[1] (Projects with 500 to 4000 sq.ft. of new or replaced impervious area)	Select and implement Basic BMP option(s) and identify on the Site Plan
Tier 3 (Storm Water Runoff Requirements)	LARGE PROJECTS[1] (Commercial, Residential > 4000 sq. ft. of new or replaced impervious area, Mixed Use, Parking Lots 10 or more spaces, Hillside Residential, and Public Works Projects)[2]	Meet the *Storm Water Runoff Requirements*[3] through site design, basic BMPs, and storm water runoff BMP options

Basic BMP options are defined in the Manual as practices such as disconnected downspouts, rain gardens, permeable pavement, etc. Essentially, Tier 2 projects are required to select appropriate BMPs however there are no specified minimum sizing requirements for the BMPs. Tier 3 projects, in contrast, are required to demonstrate that the suite of employed BMPs meet the Storm Water Runoff Sizing Requirements. The Storm Water Runoff Sizing Requirements are defined in the Manual as:

Peak Runoff Discharge Rate Requirement. As required by the State General Permit, Santa Barbara County Flood Control District for the South Coast Region, and the City of Santa Barbara's SWMP, storm water runoff BMPs shall provide detention such that the post-development peak storm water runoff discharge rate shall not exceed the pre-development rate for the 2-, 5-, 10-, and 25-year 24-hour storm events. The method for calculating the peak storm water runoff discharge rate is described in Appendix C of the Manual. For redevelopment projects, the net change in peak flow rates are to be compared with the predevelopment condition.

Volume Reduction Requirement. Retain on-site the larger of the following two volumes:

- The volume difference between the pre- and post-conditions for the 25-year, 24-hour design storm (for redevelopment, the pre-condition is the predevelopment condition).
- The volume generated from a one-inch, 24-hr storm event

Water Quality Treatment Requirements. Water quality treatment requirements are differentiated based on whether the BMP is volume-based or flow-based. The criteria for both are as follows:

- Volume-based storm water runoff BMPs (e.g., bioretention areas) shall be sized for the one-inch 24-hr design storm.
- Flow-based storm water runoff BMPs (e.g., vegetated swale filters) shall be sized based on a constant rainfall intensity of 0.25 in/hr for 4 hours.

All projects which comply with one or more of the following conditions are exempt from conducting a full analysis for hydromodification impacts:

- Projects that disturb less than one acre and create less than 10,000 square feet of new impervious area
- Projects that do not increase impervious area or decrease the infiltration capacity of pervious areas compared to pre-project conditions.
- Projects that are replacement, maintenance, or repair of an existing permitted flood control facility.
- Projects within a watershed or sub-watershed where a geomorphically-based watershed study has been prepared that establishes that the
- potential for hydromodification impacts is not present based on appropriate assessment and evaluation of relevant factors, including: runoff characteristics, soils conditions,

watershed size and conditions, channel conditions, and proposed levels of development within the watershed.

- Projects that discharge directly or via a storm drain into concrete or significantly hardened channels, which, in turn, discharge into a sump area under tidal influence, or other receiving water that is not susceptible to hydromodification impacts.
- Projects for which have hydrologic control measures that include sufficient sub-regional, regional, in-stream control measures, or a combination thereof such that hydromodification will not occur.

Additionally, the Manual incorporates a waiver process, whereby one or more of the storm water runoff requirements to be waived for a Tier 3 project if technical or legal infeasibility can be established by the project applicant.

Finally, regarding BMP selection, the Manual also requires that for, Tier 3 projects, BMPs are selected based on downstream receiving water impairments (TMDLs and 303(d) listed impairments), in addition to other factors such as site specific constraints and aesthetic considerations. Therefore site specific water quality factors will considered during BMP selection for all significant new and re-development projects.

5.1.3 Development of a Watershed Management Plan

The City will develop a Watershed Plan within two years of permit issuance to best approach management of watershed-specific issues and to provide for long-term watershed protection. The Watershed Management Plan will build off of existing work completed for the Carpinteria Creeks Preservation Program and will utilize water quality information collected by the City, Project Clean Water, UCSB and other monitoring programs to characterize the four watersheds in which the City of Carpinteria is located.

The Watershed Management Plan will characterize existing conditions with respect to water quality and include information such as impairments and potential pollutant sources for each watershed. Existing and planned regional water quality improvement projects, such as the several detention basin and CDS installation projects located near the outlet of major watersheds in the City, will be described and evaluated for water quality benefits. After an evaluation of the net benefit of the projects relative to broader water quality goals identified in the plan, additional projects may be identified for implementation.

The Watershed Management Plan will also provide a framework through which the City can implement appropriate watershed management in the future. The Watershed Management Plan will lay out a management approach and management measures tailored to the specific conditions of each watershed in the City. The Watershed Plan will serve to organize the information available on watershed and water quality conditions in the City in a manner most appropriate for management, and to provide measures, based on this information, that will best protect beneficial uses.

5.1.4 Development of Hydromodification Management Policies

The City will develop long-term hydromodification management policies appropriate for watershed-specific conditions, the City's available resources, and the City's contributions to each watershed through the development of the Watershed Management Plan. The hydromodification management policies will serve to:

1. Maximize infiltration of clean stormwater, and minimize runoff volume and rate
2. Protect riparian areas, wetlands, and their buffer zones
3. Minimize pollutant loading; and
4. Provide long-term watershed protection.

As discussed above under BMP 5.1.1, existing General Plan policies already address the above conditions in a variety of ways. The policies are described in more detail above; however, Objective OSC-6f and Implementation Policies 25, 27, 31, and 33, provide examples of the ways through which the City already is implementing Hydromodification Management Policies.

Hydromodification Management policies for each watershed will be developed in concurrence with the development of the Watershed Management Plan and implemented within two years of permit issuance. In this way, the policies will reflect the potential for impacts from development on each specific creek/watershed. The policies will be based on a technical assessment of:

- hydrograph modification (flow volume, duration and rate),
- a wide range of flow events,
- effects of imperviousness,
- evaluation of potential downstream impacts,
- buffer zone requirements, and
- water quality impacts

Policies will include:

- Numeric criteria for controlling stormwater runoff volume and rates from new and redevelopment
- Numeric criteria for stream stability required to protect downstream beneficial uses and prevent physical changes to downstream stream channels that would adversely affect the physical structure/biological condition and water quality of streams
- Specific applicability criteria, land disturbance acreage thresholds and exemptions

- Performance criteria for control BMPs and an inspection program to ensure proper long term functioning over

- Education requirements for appropriate municipal staff on hydromodification and Low Impact Development.

5.1.5 Development Review Process

Development projects, when brought to the City, undergo a series of reviews. NPDES permit requirements related to new and redevelopment low impact design, and post-construction hydromodification control, once developed for the City, will be implemented through this development review process.

Discretionary Permit Review Process

Pre-application Review. In order to assure that water quality measures are addressed in the early design stages of any project development, City staff will participate in a pre-application consultation with applicants to discuss projects. Preapplication meetings are voluntary but recommended for most moderately complex or complex projects where there is the potential for significant environmental or policy concerns. During the meeting staff advises the applicant on potential water quality policy and CEQA issues and can suggest changes in the project to avoid policy conflicts and significant water quality impacts. The City may implement interpretive and implementation guidelines to assist in the interpretation of its key water quality policies as part of the adoption of its General plan. A preliminary assessment of the project's consistency with these policies is made in a follow up report to the conference. Staff may also describe supplemental material necessary for a complete application submittal.

Application Submittal. To proceed with development, applicants must first apply for a planning permit from the City. Permit requirements and allowable uses are set forth in the City's Zoning Ordinances. The application package requires submittal of information and plans regarding proposed uses of the land and structures. The application material also requires the applicant to submit information regarding current and proposed storm water drainage, proximity to creeks, proposed impermeable area, and proposed measures to reduce impacts to water quality.

Application Review. When a new project is submitted, the planning staff prepare routing slips to send out to City departments, special districts and other regulatory agencies that might have an interest or some review authority over the project. The routing slip packets contain a cover letter, a copy of the project application, a copy of the plans and any other relevant materials. Relevant materials related to stormwater might be grading/drainage plans, soils reports, preliminary studies, etc.

The core group of agencies/departments that are notified (via the routing slip) on most every project also meet as the Inter Departmental Advisory Group (IDAG) to discuss the particulars of the project in more detail. The parties involved in the IDAG meetings include the planning staff, building inspector, engineering staff, sanitary district staff, water district staff and fire district staff. For stormwater, the discussion primarily involves the planning staff, engineering/public works staff and the building inspector. All parties at the table have had the opportunity to review plans prior to the meeting and everyone comes to the meeting with questions, comments and

conditions to discuss. Direction that comes out of the meeting with respect to stormwater, drainage, erosion control measures, etc. are then incorporated into future project conditions or relayed back to the applicant (as applicable) with direction to make changes to the project to either be consistent with City requirements relative to stormwater management or to avoid problems related to stormwater issues. If changes need to be made to the project based on the comments that came out of the IDAG meeting, the changes must be addressed before the project can be deemed complete and move on in the review process.

CEQA Review. The CEQA Initial Study Checklist provides a preliminary analysis of the potentially significant environmental impacts of a proposed project to identify appropriate measures to mitigate the impact, and ultimately, to determine whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is required. The City's Initial Study Checklist was adapted from the recommended checklist contained in the State CEQA Guidelines.

Presently, the City Checklist combines water resources and flooding into one category and includes direct reference regarding water quality impacts resulting from project-related discharges. Potential revisions to the City Checklist in order to further address storm water quality impacts will be developed as part of updates to the City's CEQA guidelines.

The City Environmental Thresholds and Guidelines Manual include standards and thresholds used to determine the significance of program and project-related impacts under CEQA. The thresholds and standards are adopted by the City Council and are applied to all new private and public projects. Surface water quality impacts have historically been evaluated through the related effects on biological resources or in coordination with the Regional Water Quality Control Board and its water quality regulations.

Non-exempt projects are reviewed under the State and City CEQA guidelines. This includes preparation of an initial study to determine the significance of project impacts, including impacts to water quality. If water quality and other project impacts can be feasibly mitigated to a less than significant level a negative declaration is prepared. If there is the potential for significant impacts an EIR is prepared. The EIR can include identification of additional mitigation measures or alternative project designs, which reduce water quality impacts. Both the ND and EIR are subject to public review and comment, which provides an additional opportunity for the public to comment on water quality issues.

Staff Report Preparation and Decision Maker Hearings. Recommendations for approval or denial of the project are contained in either a staff report or Council Agenda Report. Project approval can only be granted where the appropriate permit findings can be made including a finding that the project is in conformance with the City's Comprehensive and/or Coastal Plan policies. Non-compliance with the City's water quality policies would be grounds for project denial.

If mitigation measures are required to address significant water quality impacts or to address policy consistency, the measures will be adopted as conditions of approval.

The City may apply Standard Conditions of Approval and Mitigation Measures to address policy consistency and/or potentially significant impacts identified during the project review and CEQA

processes. The Conditions/Measures are developed in conjunction with other City and County departments (e.g., Flood Control, Fire, and Environmental Health Services). The new and revised conditions address both construction site pollution control and post-construction runoff control for new development and redevelopment. Some of the new measures shall be considered during the initial design phase of a project if they require significant land area to implement.

Land Use Clearance and Permit Compliance. To gain project approval the applicant must receive land use clearance from the City and obtain applicable Building and Grading Permits. City staff reviews the project plans submitted for building and grading for consistency with the approved actions, and that any compliance items required to be completed prior to land use clearance are completed. This would typically include review of detailed design plans for water quality treatment facilities. To obtain clearance to use or occupy the development, the applicant must implement any water quality measures adopted as a condition of approval.

5.1.6 Staff Training

Planning staff will need to be trained to recognize potential storm water impacts during design review and to condition projects appropriately. Annual training shall be used to initiate new staff, and to provide updates on innovative site design for existing staff. Staff will be trained on City development review procedures, post-construction best management practices, and low impact site design measures.

5.1.7 Incentive Program for Innovative Site design

The City will develop an incentive program to encourage innovative site design for projects that are not required to incorporate low impact development design techniques and for existing development that might provide a good opportunity for water quality benefits (based on preferable location, on-site opportunity, etc. The City will provide incentives for innovative designs for such projects by offering discounts on annual fees, assistance with design and engineering, and Project spotlights featured on the City website.

5.1.8 Monitor Discretionary Projects

City staff will inspect all discretionary projects at least once after development to ensure that all conditions of approval were carried through the construction process. City staff will not issue the occupancy permit unless all conditions are met. Non-compliance can warrant a correction notice, stop work order, collection of any bonds, and establishment of a time frame for developer to take corrective steps to resume work.

5.2 Measurable Goals

The following goals will be used to check progress each year as well as demonstrate the efforts made to reduce pollutants to the maximum extent practicable. The intent is to provide an opportunity to assess and evaluate the program and a feedback mechanism to measure and update the program as appropriate. The following measurable goals would be applied toward the new development and redevelopment minimum control measure:

Table 5-2
BMP Implementation: Post construction Runoff Control

Year	BMP	Implementation Details	Pollutants of Concern	Measurable Goals	Implementing Agency
1-5	BMP 5.1.1 Land Use Policies	The City will implement land use policies that encourage low impact development and pollution prevention measures.	Bacteria, Heavy Metals, Pesticides, Sediments, Hydromodification	The City will continue to implement all land use policies. Non-compliant projects will be documented.	City
1	BMP 5.1.2 Modify and Incorporate City of Santa Barbara BMP Guidance Manual	The City will review the City of Santa Barbara BMP Guidance Manual provisions to ensure applicability given City characteristics. The City will develop guidance to translate the Manual for applicability to Carpinteria.	Hydromodification, Sediments	The City of Santa Barbara BMP Guidance Manual will be reviewed and translation materials will be developed within the first year of the permit term.	City
1-2	BMP 5.1.3 Develop Watershed Management Plan	The City will develop a Watershed Management Plan addressing all creeks within its jurisdiction that will identify watershed specific water quality issues and management measures.	All	The City will develop a Watershed Management Plan for all creeks within its jurisdiction by the end of the second year of the permit term.	City
1-2	BMP 5.1.4 Develop Hydromodification Management Policies	The City will develop City-specific hydromodification management policies for incorporation into the Watershed Plans.	Hydromodification	The City will incorporate hydromodification management policies into the Watershed Plans by the end of the second year of the permit term.	City

1-5	BMP 5.1.5 Development Review Process	The City will continue to review all discretionary projects for environmental impacts, compliance with standard conditions of approval and other code requirements.	Hydromodification, Sediments	The City will document all discretionary project reviews and in particular track the BMPs implemented to mitigate for potential water quality impacts.	City
1-5	BMP 5.1.6 Staff training	The City will train all staff involved in the development review process on new policies once developed, water quality best management practices, and low impact design.	All	100% of staff will be trained annually	City
2-5	BMP 5.1.7 Incentive Program for Innovative Site Design	The City will develop an incentive program that will encourage site design that minimizes runoff, while also educating the design/construction community.	Hydromodification, Sediments	The City will develop the incentive program by the end of the second year of the permit term.	City
1-5	BMP 5.1.8 Monitor Discretionary Projects	Development projects will be inspected and monitored after construction to ensure all conditions of approval were carried through.	All	The City will document that all projects incorporate all required design measures once built. All non-compliance issues will be documented.	City

5.3 Reporting

Data collected for each measurable goal will be compiled, reviewed, and summarized in annual reports. Significant variance from targets will be assessed and discussed in annual reports to RWQCB. Feedback from City staff, permittees, developers, the Community Interest Group, etc., will be used to modify BMPs or the measurable goals, as appropriate; the basis for any changes will be included in the following annual report.

6. POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

The Public Works Director of the City of Carpinteria will be responsible for implementing this SWMP element.

The purpose of this control measure for Municipal Operations/Good Housekeeping Practices is to assure that the City's delivery of public services occurs in a manner protective of storm water quality. In this way the City may serve as a model to the community.

6.1 Best Management Practices

The City engages in numerous activities ranging from minor janitorial services to major public works construction projects. To effectively cover all these activities, the SWMP requires the implementation of the below listed BMPs.

6.1.1 Site Specific Storm Water Management Plans

To ensure compliance with the City's Storm Water Management Program, a site specific SWMP will be developed for all facilities and/or operations that could adversely impact storm water. The City owns and operates the facilities listed below. In order to address the need for storm water protection, a multi-step process will be used to document the nature of each City operation and/or facility and identify appropriate BMPs to minimize the potential for impacts to storm water quality. Any new or acquired facilities will be evaluated with respect to operations, activities and appropriate storm water management practices.

City Facility Locations

City Hall (parking lot)	5775 Carpinteria Ave.	Carpinteria, CA 93013
Public Works (yard)	5775 Carpinteria Ave.	Carpinteria, CA 93013
Veterans Building	411 Walnut Ave.	Carpinteria, CA 93013
Ash Street Boat House	100 Ash Ave.	Carpinteria, CA 93013
El Carro Park (rest room/parking)	El Carro Lane	Carpinteria, CA 93013
Monte Vista Park	Bailard Ave, Carpinteria, CA 93013	
Heath Park	Eucalyptus Lane, Carpinteria, CA 93013	

A site specific SWMP will be developed for all facilities or operations that could adversely impact storm water through their normal course of activities.

6.1.2 Purchasing and Contracts

The City will provide educational materials related to municipal operation best management practices to all contractors. Additionally, the City will review existing contract language to ensure venders and contractors who provide services for the City implement appropriate BMPs. Such services and contracts may include housekeeping, painting, and construction. Contracts will be worded to include specific language requiring contractors to obtain approval from the City of project-oriented BMPs or activity-related Storm Water Plan. The contractor's BMPs or plan will

describe how storm water conveyances will be protected from potential pollutants specific to the project undertaken. If they violate the plan, it will be sufficient reason for termination of the contract without harm to the City.

6.1.3 Integrated Pest Management

The City of Carpinteria uses Integrated Pest Management methods in the parks and street right of ways in order to prevent storm water runoff quality degradation as well as to improve public safety and cost effectiveness. These methods include the use of City generated tree chip mulch to suppress weed growth and prevent soil siltation, the use of hand labor to remove weeds from park and right of way planter areas and the minimal use of herbicides for weed control. When herbicides are used, they are applied with judicial compliance with manufacturers recommendations for effective results.

The Park system uses mostly mulching and hand removal techniques but does occasionally use a minimal amount of glysophate. Trade names for products containing glyphosate include Roundup, Rodeo, and Pondmaster. It is not applied to any turf or play areas. Glyphosate is highly absorbed on most soils especially those with high organic content. The compound is so strongly attracted to the soil that little is expected to leach from the applied area. Microbes are primarily responsible for the breakdown of the product. The time it takes for half of the product to break down ranges from 1 to 174 days. Because glyphosate is so tightly bound to the soil, little is transferred by rain or irrigation water. One estimate showed less than two percent of the applied chemical is lost to runoff. The herbicide could move when attached to soil particles in erosion runoff. Photodecomposition plays only a minor role in environmental breakdown. See the Cornell University website listed for more complete information http://pmep.cce.cornell.edu/profiles/extoxnet/dienochlor-glyphosate/glyphosate-ext.html

In our athletic fields, those used for soccer for example, we do on occasion use dicamba to control clover. The invasion of clover into turfgrass can be reduced by using levels of nitrogen fertilizer that will promote grass growth but not the growth of clover; this can be achieved by applying 1 pound of active nitrogen per 1,000 square feet of turfgrass during each month of active turfgrass growth. Nitrogen applications are carefully calculated and applied to avoid runoff of excess fertilizer to drainage systems. Clover in established turfgrass cannot be controlled by fertilization or mowing of the grass. Once clover is established, the annual clovers are controlled by hand-pulling before seeds are formed. Hand-pulling is repeated as new germination occurs and desirable turfgrass is planted in weeded areas.

6.1.4 Street Sweeping

The City of Carpinteria Street sweeping maintenance program applies to two sections of town and both are contracted out to Venco Sweeping. The first section is comprised of the downtown commercial area as well as the beach front portion of the City. These areas are swept every which are swept either the 1ST, 2ND, 3RD or 4TH Wednesday of each month depending on the area. The objective of the street sweeping program is to prevent street pollutants (sediment, litter, leaves, paper, cans, etc.) from getting washed into the storm drain system or from building up in the public right of way.

6.1.5 Catch Basin and CDS Unit Cleaning

The City also maintains and cleans two CDS units on an annual basis as a means of ensuring clean effective storm water runoff and thereby preventing pollution into local water resources. Both CDS units (Sixth Street- Ash Street/Marsh Park) are inspected by the city annually before and after the winter season and are cleaned of debris (if necessary) by an industrial vacuum truck from a private contractor or the Carpinteria Sanitary District.

The City of Carpinteria has provided stormflow flaps on all catch basins that prevent the flow of debris and trash into the storm drain. The debris collected in front of all stormflow flaps is cleaned out every October, prior to the wet season.

6.1.6 Mutt-mitt Program

The City will continue to provide mutt-mitts at City parks for easy and convenient clean-up of pet waste. The City will provide mutt-mitts at 100% of City parks by the end of the first year of the permit term.

The City will refill mutt-mitt dispensers every week. Usage at each dispenser will be monitored and refill frequency modified to accommodate variable usage.

6.1.7 Staff and Contractor Training

All City Public Works employees will receive annual training on storm water pollution prevention based on their work responsibilities. Much of the training programs will be integrated into existing training presented to staff, such as safety training.

Storm water training will occur annually. In addition, managers will be given specific guidance on their departmental and contractual responsibilities for storm water management.

6.2 Measurable Goals

The City will use the following measurable goals to track the implementation and effectiveness of the BMPs.

Table 6-1
BMP Implementation: Pollution Prevention and Good Housekeeping for Municipal Operations

Year	BMP	Implementation Details	Pollutants of Concern	Measurable Goals	Implementing Agency
1-5	BMP 6.1.1 Site Specific Water Management Plans	Site Specific SWMP developed for all facilities and/or operations that could adversely impact storm water	All	Site-specific SWMPs will be developed for each City facility by the end of the second year of the permit term. SWMPs will be implemented for the remaining three years of the permit term.	City/County
1	BMP 6.1.2 Purchasing & Contracts	Contractors will be required to implement BMPs or activate related Storm Water Plans to protect water quality. The City will review and revise standard contract language to incorporate language enabling the City to end contracts if in non-compliance with site SWMPs.	All	Standard contract language will be revised by the end of the first year of the permit term.	City
2-5	BMP 6.1.3 Integrated Pest Management	The City will continue to use Integrated Pest Management methods for maintenance of City facilities.	Pesticides	The City will document the usage of integrated pest management methods and the number of times, types and amounts of pesticides applied for maintenance.	City
1-5	BMP 6.1.4 Street Sweeping	The City will continue to implement the street sweeping program.	Sediments, Debris and Trash	Streets in the downtown commercial districts will be swept weekly. Residential areas will be swept monthly. Maintenance	City

				schedules will be documented.	
1-5	BMP 6.1.5 Catch Basin and CDS Unit Cleaning	The City will continue to implement the catch basin and CDS unit cleaning program.	Sediments, Debris and Trash, Heavy Metals	All catch basins will be cleaned annually. The two CDS units will be cleaned out for trash and gross solids once every year.	City
1-5	BMP 6.1.6 Mutt-Mitt Program	Staff will continue to provide mutt-mitts to reduce the animal waste in the parks.	Bacteria	Mutt-mitts will be provided in 100% of all City parks by the end of the first year of the permit term. City staff will document frequency of refills of empty mutt-mitt dispensers.	City
1-5	BMP 6.1.7 Staff Training	All municipal staff will receive training on facility specific SWMPs, activity specific BMPs and applicable changes to City procedures.	All	100% of all City staff and contractors will be trained annually.	City

6.3 Reporting

Data collected and documented for each measurable goal will be compiled, reviewed and summarized as part of the annual reports to the RWQCB. Significant variance from targets will be assessed and discussed in annual reports to RWQCB. Feedback from City staff, permittees, developers, the Community Interest Group, etc., will be used to modify BMPs or the measurable goals, as appropriate; the basis for any changes will be included in the following annual report.

ANNUAL REPORTING

The City will monitor the implementation of the SWMP and the overall effectiveness by documenting activities implemented and evaluating progress with respect to the measureable goals indicated in previous sections for each BMP.

The City will evaluate both current conditions and BMP effectiveness, and, as appropriate, update BMPs and measurable goals to achieve the objective of meeting water quality standards to the Maximum Extent Practicable. It may be necessary to expand or better tailor existing BMPs after implementing the minimum control measures described in this SWMP. Such changes would be developed in consultation with stakeholders and the RWQCB.

Form and Content of Annual Report

The State annual report form and annual report guidance to the General permit shall be used when preparing the annual report. It is available at: http://www.swrcb.ca.gov/stormwtr/phase_ii_municipal.html.

The City will also provide summaries of data in tabular form organized by each MCM BMP. Data such as number of employees trained, number of construction sites inspected, etc. will be presented in summary tables. Because the City is required to keep records for five years and due to the intent of the reporting requirement, the annual report will focus on a summary of progress and discuss any changes to the SWMP to be implemented in meeting the "maximum extent practicable" standard. Of necessity, the reporting format needs to be flexible and if changed, reasons will be given. Focus will be to clearly show progress, to discuss program adjustments, and response to challenges in implementing the SWMP.

Pursuant to the state's draft "General Permit", the City will retain storm water records for five years. Each department responsible for implementing substantive elements of the SWMP will be directed to keep their records for five years. These records will be the source of compiled data contained in the Annual Report.

APPENDIX A: NOTICE OF INTENT

Attachment 7
WQO 2003-0005-DWQ

State Water Resources Control Board
NOTICE OF INTENT
TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT FOR
STORM WATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
(WATER QUALITY ORDER NO. 2003 – 0005 - DWQ)

I. NOI Status

Mark Only One Item 1. [ ]New Permittee 2. [ ]Change of Information WDID #: _____

II. Agency Information

A. Agency: City of Carpinteria			
B. Contact Person: Dave Durflinger	C. Title: City Manager		
D. Mailing Address: 5775 Carpinteria Avenue	E. Address (Line 2):		
F. City: Carpinteria	State: CA	G. Zip: 93013	H. County: Santa Barbara
I. Phone: (805) 684-5405	J. FAX: (805) 684-5304	K. Email Address:	

L. Operator Type (check one)
1. [X] City 2. [ ] County 3. [ ] State 4. [ ] Federal 5. [ ] Special District 6. [ ] Government Combination

III. Permit Area

_____

IV. Boundaries of Coverage (include a site map with the submittal)

Incorporated Limits of the City of Carpinteria

V. Billing Information

A. Agency: City of Carpinteria			
B. Contact Person: Monique Epley	C. Title: Finance		
D. Mailing Address: 5775 Carpinteria Avenue	E. Address (Line 2):		
F. City: Carpinteria	State: CA	G. Zip: 93013	H. County: Santa Barbara
I. Phone: (805) 684-5405	J. FAX: (805) 684-5304	K. Email Address:	

Fees are based on the daily population served by the Small MS4. To determine your fee, consult the current fee schedule (California Code of Regulations, Title 23, Division 3, Chapter 9 Article 1), which can be viewed at www.swrcb.ca.gov/stormwtr/municipal.html.

L. Population 14,194

Fee _____

Check(s) should be made payable to the SWRCB and submitted to the appropriate RWQCB.

SWRCB Tax ID is: 68-0281986

VI. Discharger Information (check applicable box(es) and complete corresponding information)

1. [ ] Applying for Individual General Permit Coverage

2. [ ] Applying for a permit with one or more co-permittees

The undersigned agree to work as co-permittees in implementing a complete small MS4 storm water program. The program must comply with the requirements found in Title 40 of the Code of Federal Regulations, parts 122.32. Attach additional sheets if necessary. Each co-permittee must complete an NOI.

Lead Agency	Signature
Agency	Signature
Agency	Signature
Agency	Signature

3. [X] Separate Implementing Entity (SIE)

A. Agency: City of Carpinteria			
B. Contact Person: Dave Durflinger	C. Title: City Manager		
D. Mailing Address: 5775 Carpinteria Avenue	E. Address (Line 2)		
F. City: Caripnteria	State: CA	G. Zip: 93013	H. County: Santa Barbara
I. Phone: (805) 684-5405	J. FAX: (805) 684-5304	K. Email Address	

H. Operator Type (check one)
1. [X] City 2. [ ] County 3. [ ] State 4. [ ] Federal 5. [ ] Special District 6. [ ] Government Combination

Minimum Control Measures being implemented by the SIE (check all that apply)
[X] Public Education [X] Public Involvement [X] Illicit Discharge/Elimination
[X] Construction [X] Post Construction [X] Good Housekeeping

"I agree to coordinate with the agency identified in Section III of this form and comply with its qualifying storm water program. I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."

N. Signature of Official _____ Date 12/12/08

VII. Storm Water Management Plan (check box)

[ ] As per section A.2. of this General Permit, the SWMP is attached.

VIII. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."

A. Printed Name: Thomas C. Evans

B. Title: Interim Public Works Director

C. Signature: _____ D. Date: 12/15/08