

## WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM

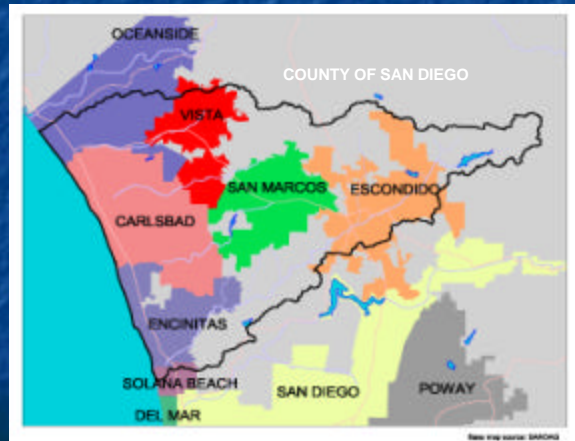
ANNUAL UPDATE

## CARLSBAD HYDROLOGIC UNIT

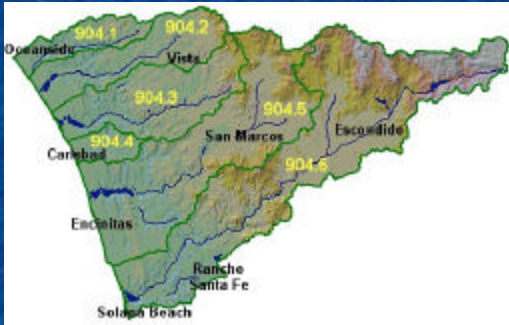
November 18, 2003

## Carlsbad Watershed Copermitttees

1. City of Carlsbad
2. City of Encinitas
3. City of Escondido
4. City of Oceanside
5. City of San Marcos
6. City of Solana Beach
7. City of Vista
8. County of San Diego



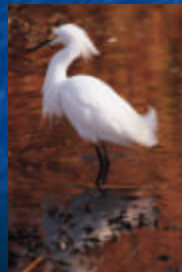
# The Carlsbad "Watershed" is a hydrologic unit made up of six watersheds



WATERSHED	RECEIVING WATER BODY	Area (Sq. Mi.)	%
Carlsbad Hydrologic Unit (904)	Pacific Ocean	211	100
Loma Alta (904.10)	Loma Alta Slough	10	5
Buena Vista Creek (904.20)	Buena Vista Lagoon	23	11
Agua Hedionda (904.30)	Agua Hedionda Lagoon	29	14
Encinas (904.40)	Pacific Ocean	5	3
San Marcos (904.50)	Batiquitos Lagoon	60	28
Escondido Creek (904.60)	San Elijo Lagoon	85	40

## Our Goal

*Positively impact water quality  
in the receiving waters of the  
Carlsbad Watershed*



## Our Goal will be Achieved by Implementing Objectives

1. Develop and expand methods to assess and improve water quality in the Carlsbad Watershed.
2. Integrate watershed principles into land use planning.
3. Enhance and increase public understanding of watershed issues and pollution prevention through a watershed-based educational program.
4. Encourage and increase opportunities for stakeholder involvement within the watershed.

## Overview of 2002-03 Achievements

- Developed Watershed Urban Runoff Management Program (January 2003)-posted of Project Clean Water website
- Watershed Copermittees continued collaboration
- Developed educational materials through the North County Storm Water Program-Education arm of WURMP
- Expanded & Re-evaluate WQ Assessment

## The Core of the WURMP is the Water Quality Assessment to Define Baseline

- Identifies “major water quality problems” for the watershed
- Establishes the basis for the WURMP by focusing on specific problems
- Based on existing water quality data
  - Wet weather monitoring sites
    - Agua Hedionda Creek at El Camino Real (4 years of data)
    - Escondido Creek at Camino Del Norte Bridge (2 year of data)
  - Dry Weather Monitoring along Escondido Creek (2 years)
  - Dry Weather Monitoring throughout watershed



## Water Quality Assessment and other Factors used to Prioritize Problems

- Water quality data
- Biological assessment data
- Toxicity data
- 303(d) impaired water bodies list
- Beneficial uses



## Major Water Quality Problems Identified for Carlsbad Watershed

- Potential Major Water Quality Problems
  - Bacterial indicators (total/fecal/Enterococci)
  - Sedimentation/siltation (TSS/Turbidity)
  - Diazinon (moved up from "watch list" based on new data)
- Constituents of Concern to be "watched"
  - Total dissolved solids (TDS)
  - Eutrophication/Nutrients (Nitrates)



Activities performed during reporting period are based on achieving objectives and focus on major water quality problems

## **Objective #1**

### **Develop & Expand Methods to Assess & Improve Water Quality in the Watershed**

- Compiled, reviewed and assessed additional water quality data to verify high priority problems including bacteria
  - 2002-03 Wet Weather data
  - 2002 Dry Weather data
  - 2002-03 Coastal Outfall Monitoring data
- Adopted local SUSMP requirements, began implementing and tracking SUSMP projects
- Began Ambient Bay and Lagoon Monitoring (ABLM) Program (Regional Program)
- Identified water quality data and added new monitoring locations within the receiving waters (rather than MS4)

## **Planning Activities**

### **Objective #2**

**Integrate Watershed Principles Into Land Use Planning Among Jurisdictions Within Watershed**

## Planning Activities

- Jurisdictional Planning Goals
- Inter-Jurisdictional Planning Mechanisms
- Watershed-Based Planning Mechanisms
- Additional Planning Mechanisms

## Individual Jurisdictional Goals

All Jurisdiction's Implemented their SUSMP Requirements, Additional Modifications:

- Oceanside General Plan Update – 05/21/03
- City of Vista
- County's GP2020 Update
- No other jurisdictions made stormwater specific updates this reporting period.

## Inter-jurisdictional Planning Mechanisms

- Memorandum of Understanding
  - Signed January 1991
  - MOU established notification parameters that are based on project size, location, and type.
- CEQA Process
  - Environmental document available for public review for a period ranging from 20 to 45 days.
  - Jurisdictions required to notify the public through one of several options.
- Public Hearing Process

## Watershed-Based Planning Mechanisms

- Land Use Professional's Reference Manual
- Watershed Management Plans
  - Commitment to continue working with CWN
  - Loma Alta Creek WMP
- Formal Agreement between Jurisdictions
  - Existing MOU
  - Joint Exercise of Powers Agreement or JEPA
- Additional Watershed Planning Activities

## Land Use Professional's Reference Manual

- Prepared jointly by City of San Diego and County of San Diego
  - Draft Anticipated for Release in 1<sup>st</sup> Quarter 2004 with Final Version by Summer 2004
  - First crucial step towards developing a mechanism for watershed-based land use planning
  - Provide land use professionals with a big picture overview of the water quality problems and the need for more site design solutions.

## Other Jurisdictional Planning Activities

- Carlsbad Watershed URMP Workgroup
- North County Stormwater Program
- Escondido Creek and San Elijo Lagoon Watershed Area Cooperative Agreement
- CWN Involvement

## EDUCATIONAL ACTIVITIES

### Objective #3

**Enhance and Increase Public Understanding of Watershed Issues and Pollution Prevention Through Watershed-based Education Program**

## EDUCATIONAL ACTIVITIES

### Education Objective 1

Develop materials for public distribution providing a consistent message to all residents in the North County Watershed.



## EDUCATIONAL ACTIVITIES

- Developed and administered a telephone watershed awareness survey for the San Luis Rey and Carlsbad Watersheds.
- Integrated Pest Management grant received by City of San Diego and the County of San Diego. All watershed co-permittees will collaborate to develop regional IPM materials.
- Carlsbad Watershed information housed on Project Clean Water Website, including stakeholder information, and management plans.
- Watershed Poster developed for San Luis Rey, Carlsbad and San Dieguito Watersheds, depicting the definition of a watershed, land uses, watershed descriptions and a map of the three watersheds with topo relief layers.

## EDUCATIONAL ACTIVITIES

### Education Objective 2

Develop a primary school education program focusing on watershed awareness and storm water pollution prevention.

## EDUCATIONAL ACTIVITIES

- Watershed Committees conducted 146 formal presentations, reaching 3397 grade school students throughout the Carlsbad Watershed.
- Development of a K-12 water quality/watershed education program will be accomplished in tandem with the City and County of San Diego.

## EDUCATIONAL ACTIVITIES

### Education Objective 3

Seek funding for projects involving multi-agency participation that assist us in raising watershed and storm water pollution prevention awareness.

## EDUCATIONAL ACTIVITIES

- Ten Prop 13 or 319h grant applications were submitted for projects to benefit the Carlsbad Watershed. Three of those grants were invited to develop a full proposal.
  - County of San Diego's McClellan-Palomar Airport Conveyance Restoration and Detention Basin Construction
  - City of Oceanside Myers Property and Adjacent Creek Habitat Restoration
  - San Elijo Lagoon Conservancy, CWN, Invasive Plant Removal

## EDUCATIONAL ACTIVITIES

### Education Objective 4

Maintain inter-jurisdictional collaboration focused on creation and implementation of cost-effective watershed awareness and storm water pollution prevention education projects.

## EDUCATIONAL ACTIVITIES

- Watershed Copermittees collaborated to participate in the regional creek to bay, April 2003, and coastal cleanup day, September 2003, events.
- April 27, 2003 Watershed Copermittees held a joint education booth at the Earth Fair in Balboa Park.
- Three storm water PSAs were aired in major theaters in the Carlsbad Watershed.
- Watershed Copermittees came together to create the North County Storm Water Programs.
- Workshops for commercial businesses were held in the Carlsbad watershed for the following industries: automotive, agricultural/landscape, mobile businesses and restaurants.

## EDUCATIONAL ACTIVITIES

- **Additional Accomplishments:**
  - General Storm Water Brochure
  - Informational Doorhangers
  - Restaurant and Automotive Posters
  - Click-Message Pens
  - Storm Drains Lead to Ocean Poster



## **PUBLIC PARTICIPATION ACTIVITIES**

### **Objective #4**

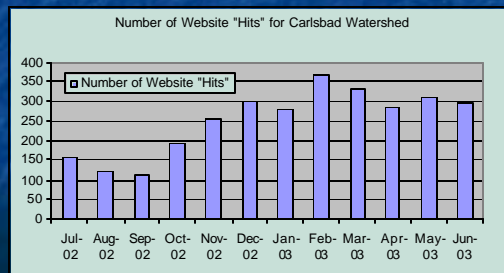
**Encourage and Increase Opportunities for Stakeholder Involvement within the Watershed**

## **PUBLIC PARTICIPATION**

- North County Storm Water Programs collaborates with numerous organizations in the development of education materials and cleanup efforts. Such organizations include:
  - CWN
  - San Luis Rey Watershed Council
  - Solana Center for Environmental Innovation

## PUBLIC PARTICIPATION

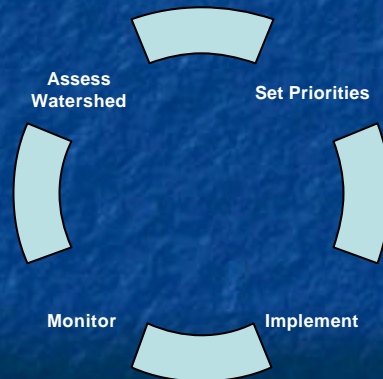
- Project Clean Water Website hosts the Carlsbad Watershed webpage which includes information on the watershed, as well as plans, projects and activities affecting the watershed.
- During the reporting period, the Carlsbad Watershed Page had 3003 visitors.



## PUBLIC PARTICIPATION

- Stakeholder Workgroups:
  - Watershed Copermittees work with identified stakeholder workgroups within the Carlsbad Watershed, including:
    - CWN,
    - Loma Alta Creek Technical Advisory Committee,
    - Escondido Creek Watershed Cooperative Agreement.

## A Key Element of the WURMP is the Adaptive Management Plan



## Program Assessment is key to Successful Plan and Must Focus on Objectives

- Compiled, reviewed and assessed additional water quality data to verify high priority problems including bacteria
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## Summary and Conclusions

- WURMP has been collaboratively developed to address:
  - Regulatory requirements of Municipal Permit
  - Objectives set forth in WURMP
- Key Components relate to four objectives:
  - Water Quality Assessment
  - Land Use Planning
  - Watershed Education
  - Public Participation
- Carlsbad Watershed Copermittees are committed to continue working together to implement the WURMP and focus on improving water quality in watershed

