

Agua Hedionda 9/28

H-SWRI/
OREHP

297

Ctr_01: 103100

Water Samples collected on 10/31/00

Sampling Key

AH Infl High = Outer Agua Hedionda Lagoon at high tide
AH Infl Low = Outer Agua Hedionda Lagoon at low tide
Mbay Inf = Mission Bay at high tide

Keri,
Here is receiving
Water data for 303(d)
FROM: Report of Waste Discharge
Agua Hedionda Lagoon
to Fish Hatchery
D. Ric #102
4/30/01

METHOD EPA 6020

Max of CONCENTRATION COMPOUND NAME	CLIENT SAMPLE NUMBER		
	AH Infl High	AH Infl Low	Mbay Infl
Antimony			
Arsenic ↘	0.0212	0.0191	0.0232
Barium			
Beryllium			
Cadmium			
Chromium (Total)			
Cobalt			
Copper ↘	0.0313	0.0296	0.0304
Lead			
Manganese ↘	0.0106		
Molybdenum ↘	0.0115	0.0113	0.0115
Nickel			
Selenium ↘	0.103	0.0958	0.0976
Silver			
Strontium ↘	6.8	6.85	7.1
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Priority Pollutant	Limits		Unit
	CMC	CCC	
	0.069	0.036	mg/L
			mg/L
			mg/L
	0.042	0.0093	mg/L
	1.1	0.05	mg/L
			mg/L
	0.0048	0.0031	mg/L
	0.21	0.0081	mg/L
			mg/L
	0.074	0.0082	mg/L
	0.29	0.071	mg/L
	0.0019		mg/L
			mg/L
	0.09	0.081	mg/L

*Std
0.5 mg/L*

Water Samples collected on 11/08/00

Sampling Key

AH Infl High = Outer Agua Hedionda Lagoon at high tide
 AH Infl Low = Outer Agua Hedionda Lagoon at low tide
 Mbay Inf = Mission Bay at high tide

METHOD	EPA 6020
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Max of CONCENTRATION COMPOU_NAME	CLIENT SAMPLE NUMBER			Priority Pollutant Limits		Unit
	Mbay Infl	AH Infl Low	AH Infl High	CMC	CCC	
Antimony						mg/L
Arsenic [✓]	0.0229	0.0252	0.0268	0.069	0.036	mg/L
Barium [✓]	0.0161					mg/L
Beryllium						mg/L
Cadmium				0.042	0.0093	mg/L
Chromium (Total)				1.1	0.05	mg/L
Cobalt						mg/L
Copper [✓]	0.0695	0.0357	0.0376	0.0048	0.0031	mg/L
Lead				0.21	0.0081	mg/L
Manganese [✓]	0.4150					mg/L
Molybdenum [✓]	0.0119	0.0134	0.0139			mg/L
Nickel [✓]	0.0151			0.074	0.0082	mg/L
Selenium [✓]	0.0970	0.1140	0.1090	0.29	0.071	mg/L
Silver				0.0019		mg/L
Thallium						mg/L
Tin [✓]	0.0101					mg/L
Titanium						mg/L
Vanadium						mg/L
Zinc [✓]	0.1400			0.09	0.081	mg/L

Water Samples collected on 11/13/00

Sampling Key

AH Infl High = Outer Agua Hedionda Lagoon at high tide
 AH Infl Low = Outer Agua Hedionda Lagoon at low tide
 Mbay Inf = Mission Bay at high tide

METHOD	EPA 6020
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Max of CONCENTRATION Compound	CLIENT SAMPLE NUMBER		
	AH Infl High	AH Infl Low	Mbay Infl
Antimony			
Arsenic x	0.0337	0.0266	0.0279
Barium			
Beryllium			
Cadmium			
Chromium (Total)			
Cobalt			
Copper x	0.0299	0.0276	0.037
Lead			
Manganese x			0.0161
Molybdenum x	0.0139	0.0141	0.0148
Nickel			
Selenium x	0.135	0.134	0.121
Silver			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Priority Polutant Limits	Unit
	mg/L
0.069	0.036
	mg/L
	mg/L
0.042	0.0093
1.1	0.05
	mg/L
0.0048	0.0031
0.21	0.0081
	mg/L
	mg/L
0.074	0.0082
0.29	0.071
0.0019	
	mg/L
	mg/L
	mg/L
0.09	0.081
	mg/L

Agua Hedionda Layon

FINAL REPORT

See
K. Cole
for Report
Back?

1999 – 2000 CITY OF SAN DIEGO AND CO-PERMITTEE NPDES STORMWATER MONITORING PROGRAM REPORT

Prepared for
The City of San Diego
Engineering & Development Department
1010 Second Avenue, Suite 500
San Diego, CA 92101

August 10, 2000

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In association with:

APPL, Inc.
California Watersports
D-TEK Environmental Testing Laboratory
MBC Applied Environmental Sciences
MGD Technologies, Inc.
Motile Laboratory Services
University of Washington
Weatherwatch Services

Hedionda stations to identify water-borne pathogens. In addition, sediment samples were collected within a public access point in the lagoon to assess the bacteria trapped in the sediment and possibly available for resuspension. A new quality assurance/quality control procedure (QA/QC) was established and implemented for bacteria samples to assess possible contamination.

Finally, in response to TMDL issues concerning diazinon and chlorpyrifos in urban runoff, an Insecticide Use Survey was created and distributed to 5,000 households and posted on the County of San Diego web site to assess trends of purchase, use, and disposal.

1.3 OVERVIEW OF SCOPE OF WORK

URSGWC provided storm water monitoring services for the co-permittees during the seventh year of the wet-weather monitoring program (1999/2000). The 1999/2000 monitoring program consisted of the following sampling services:

- Pre- and post season sediment sampling at Chollas Creek and San Diego Bay locations. These locations have been monitored since wet-weather monitoring season 1994/95.
- Chemical water quality monitoring during three storm events at five mass loading stations throughout San Diego County, AH1-Agua Hedionda, SV1-Sorrento Valley, SD13-California, SD5-Tecolote, SD8-Chollas. The mass loading stations represent large areas of the County that drain into important receiving waters. Stations SD5-Tecolote and SD8-Chollas have been monitored since the start of the wet-weather monitoring program in 1993/94. Stations SD13-California and SV1-Sorrento Valley were added to the program in 1996/97. Station AH1-Agua Hedionda was added to the program in 1998/99, concurrently with the bacteria monitoring program.
- Bacteria monitoring during three storm events at two creek monitoring stations, AH-Co and AH-Re, and two stations representing direct inputs to the creeks, AH-Coc and AH-Rec, for a total of four stations in the Agua Hedionda watershed. Stations AH-Co and AH-Re were monitored for bacteria in 1998/99. Stations AH-Coc and AH-Rec were added to the program in 1999/2000.
- Pathogen monitoring during three storm events at four creek monitoring stations, AH-Os, AH-Co, AH-Re, and AH1, and two stations representing direct inputs to the creeks, AH-Coc and AH-Rec, for a total of six stations in the Agua Hedionda watershed. Two of the creek stations monitored for pathogens, AH-Co and AH-Re, and the two stations representing direct inputs to the creeks, AH-Coc and AH-Rec, were also monitored for bacteria. One of the creek stations, AH1, monitored for pathogens was also monitored as a mass loading station.
- Post storm event bacteria and pathogen monitoring at three sampling transect locations, AH-L, AH-Lc, and AH-Lm, in Agua Hedionda Lagoon. This monitoring was performed one day and seven days after the first and third storm events that bacteria monitoring in creek and creek input stations was performed. This monitoring was not conducted following the second bacteria monitoring event because rain occurred one day and seven days following the event. Station AH-L was monitored for bacteria in 1998/99. Stations AH-Lc and AH-Lm were added to the program in 1999/2000.

**303(d) Fact Sheet – Agua Hedionda Lagoon
904.31 -- SDRWQCB**

Date: July 16, 2001

Summary of Proposed Action: Place Agua Hedionda Lagoon on the 303(d) list as impaired for the exotic marine algae, *Caulerpa taxifolia*.

Watershed Characteristics: Agua Hedionda Lagoon is a marine coastal lagoon located in the Carlsbad watershed. It consists of a chain of three shallow-water basins, restricted by Carlsbad Boulevard (Hwy. 101), the Santa Fe Railroad, and Interstate 5. Together, the basins total 330 acres of wetlands habitat with 253 acres of open water, fed primarily from two tributaries: Agua Hedionda Creek and Buena Creek. Twenty-three storm drains contribute periodic wet weather, urban, and agricultural runoff. The lagoon is located in the City of Carlsbad, and is currently owned by the San Diego Gas and Electric Company (SDG&E).

Water Quality Objectives Not Attained: *Caulerpa taxifolia* threatens the beneficial uses of the waters, including marine and wildlife habitat, aquaculture, and estuarine habitat.

Evidence of Impairment: *Caulerpa taxifolia* was first identified in the lagoon in June 2000 through visual observations, and later confirmed through genetic testing. *Caulerpa taxifolia* was also identified in Mediterranean (where it is also nonnative) in the early 1980's. Eradication was not attempted there, and the alga has spread very rapidly throughout the Mediterranean Sea. The presence of the algae has adversely impacted tourism, SCUBA diving, boating, commercial and recreational fishing, and has altered the natural ecology of the areas where it has invaded.

Extent of Impairment: Approximately 253 acres of open water is impaired in Agua Hedionda Lagoon by the presence of *Caulerpa taxifolia*.

Potential Sources: Potential sources of *Caulerpa taxifolia* include the discharge of aquarium water and/or its contents into the lagoon or a storm drain that empties into the lagoon. There is also the potential for spread through recreational activities within and into the area, including but not limited to boating, the use of jet skis, and fishing.

TMDL Priority: High

Information Sources: California Regional Water Quality Control Board.