



















































































## **6.5 WATER CIRCULATION IMPROVEMENTS**

The City has contracted with the engineering firm, Camp Dresser & McKee, to model the water circulation of the lagoon, identify the locations of deficiencies, and to recommend improvement measures. This study is currently in progress.

## **6.6 STORM DRAIN MAINTENANCE**

The Public Works Division annually completes maintenance and clearing of all 2,685 catch basins and inlets, the 17 pump stations, and all creeks (lined and unlined) in the City before October 15, the start of the wet season. To discourage dumping of trash, debris and fluids into storm drains and catch basins, the Storm Drains Maintenance Section stencils every catch basin and inlet in the City's storm drain system with "***No Dumping, Flows To Bay***". The storm drain catch basins and inlets in Redwood Shores are stenciled with "***No Dumping, Flows To Lagoon.***"

## **6.7 SEDIMENTATION IMPROVEMENTS**

Included in current discussions are the need for accurate bathometric mapping and the feasibility of dredging sediment from the bottom of the lagoon to its original depth.

## **7.0 EVALUATION OF BMPS EFFECTIVENESS**

The objective of an ongoing refinement of BMPs is to increase the effectiveness of aquatic pesticide applications and reduce usage over time. Total annual usage of each pesticide will be compared on a year to year basis to document trends in aquatic pesticide use over time. Due to environmental variables, other data such as tonnage of biomass material harvested, water temperatures and weather conditions should be included in the evaluation. Physical, cultural, biological, and less toxic chemical control alternatives can also be investigated on an ongoing basis and incorporated as appropriate to increase BMPs effectiveness.

The evaluation of BMPs for optimal pesticide application will be derived from the pre- and post-application water quality analyses (see Section 4.2). The finding of harmful levels of pesticide residuals within the treatment area or outside of the target treatment area after a defined period of time will call for modification of pesticide application BMPs.

The data resulting from the monthly monitoring of the lagoon's general water quality characteristics will also be reviewed for water quality trends. Nutrient and fecal coliform bacteria data will be especially useful, and the dissolved oxygen level data will provide an indication of the suitability of the lagoon's waters for sustaining aquatic biota.

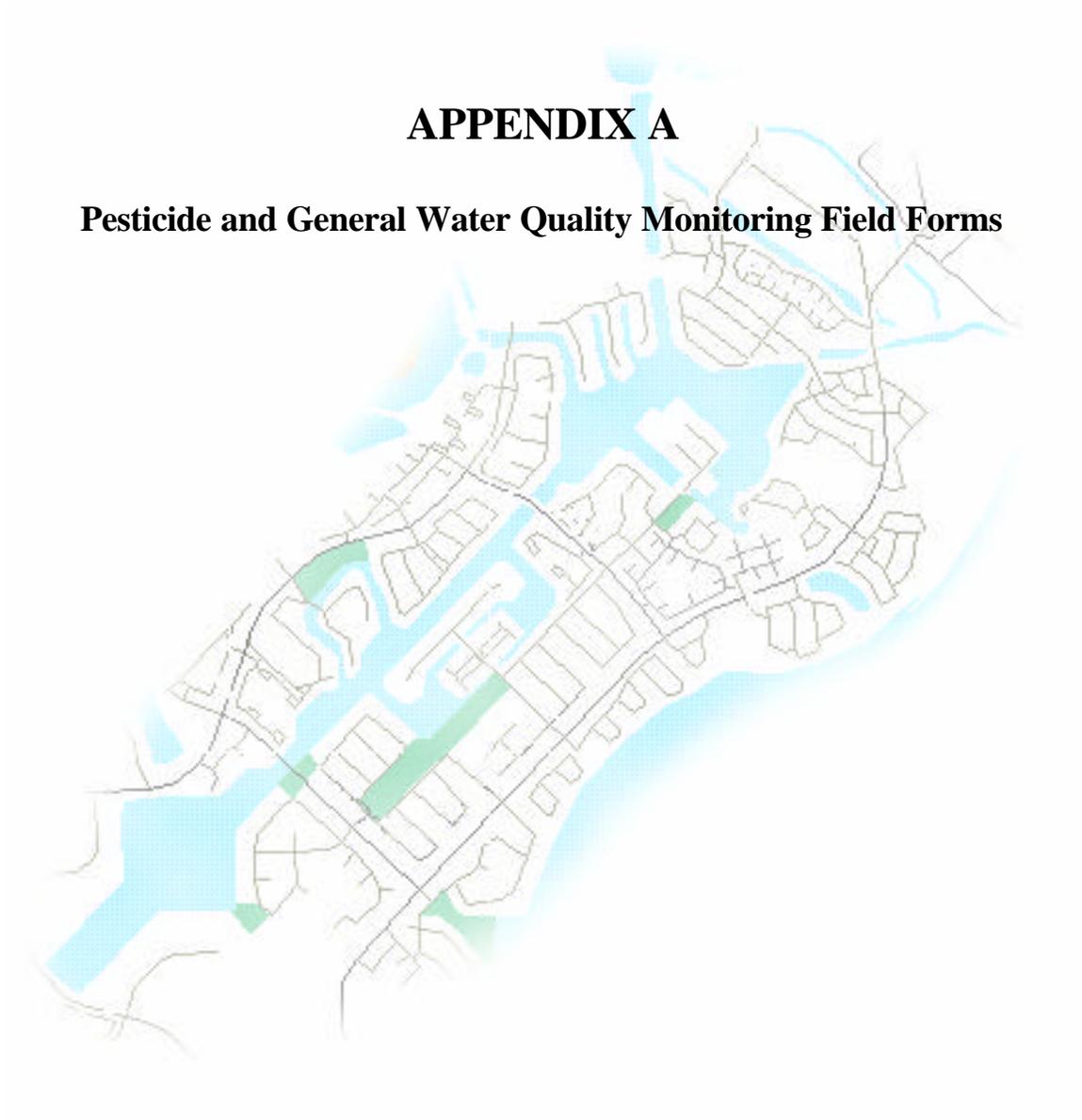
## **8.0 LAGOON MANAGEMENT PLAN UPDATES**

This edition of the management plan makes few changes to the operating procedures of the lagoon but has numerous changes to the past monitoring program. All components of the management plan are subject to review and periodic revision to reflect changes in management goals, permitting requirements, water quality objectives, aquatic macrophyte and algae control methods, and the availability of approved herbicides and algaecides. Years of monitoring the water quality of the lagoon provides further insight to the biochemical and physical characteristics of the lagoon, potentially allowing certain analyses or monitoring schedules to be modified to yield greater or lesser detail. To ensure that this update occurs, the Regional Board requires a revised and updated Lagoon Management Plan be submitted once every three years.

The various reporting and observation forms included with this plan have been designed to provide the lagoon operator and his supervisors with a source of useful information upon which decisions can be based. As experience is gained in using these forms, it may be found that additions or deletions are required or that reformatting may make them more usable. Should this be the case, revised forms should be developed.

## **APPENDIX A**

### **Pesticide and General Water Quality Monitoring Field Forms**



# NPDES General Permit

## Pesticide Monitoring Field Notes

Date: _____		Water Sampled: Redwood Shores Lagoon					
Name(s) of Field Personnel: _____		Location (City): Redwood City					
_____		Circle One: Pre-Treatment Post-Treatment					
Date of Last Treatment: _____		Treated With: _____					
<b>Weather Conditions</b>		Air Temperature: _____					
Wind Conditions: Light; Moderate; High		Percent Cloudy: _____					
<b>Samples Collected for Pesticide Residue Testing (Collected at mid-depth)</b>							
Sample Code	Type of Analyses	Time	Station	Total # of Bottles	Duplicates (Yes / No)	Preserved (Yes / No)	Iced (Yes / No)
R-Blk <sup>1</sup>	Copper & Diquat		Field Blank	2			
R-1	Cu, Diquat Nutrients		Outlet	3			
R-1BR	Fecal Coliform		Boat Ramp	1			
R-2	Cu, Diquat, Nut. & FC		Neptune Beach	4			
R-3	Cu, Diquat Nutrients		Belmont Inlet 1&2	3			
R-4	Cu, Diquat Nutrients		Northeast Basin	3			
R-5	Cu, Diquat Nutrients		Discharge Channel #2	3			
R-6	Cu, Diquat Nutrients		Area 1 Southwest	3			
R-7	Cu, Diquat Nutrients		Area 1 Northeast	3			
Duplicate <sup>1</sup>	Copper & Diquat			2			
<b>Comments or Problems:</b>							
<sup>1</sup> The field blank and duplicate are for copper and diquat analyses only (no nutrients). Label the site with duplicate as the site code followed by A or B (eg. R-2A and R-2B).							