

Progress Report

Progress Report # 008

Reporting Period: May 1, 2008 –
October 30, 2008

Submittal Date: November 21, 2008

Agreement No: 05-230-55-0

Project Name: ASBS Planning Program - Integrated Coastal Watershed Management (ICWM) Plan

Contractor Name: City of Newport Beach

Program Director/Designated Representative: Dave Kiff /Robert Stein

Summary of Work Completed During This Reporting Period

<u>Task</u>	<u>Deliverable by Subtask #</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Submitted</u>
1.0 PAEP, Monitoring Plan, QAPP and CEQA	1.1 Project Assessment and Evaluation Plan	6/06	85%	
	1.2 Monitoring Plan	10/06		
	1.3 Quality Assurance Plan	10/06	100%	
	1.4 California Environmental Quality Act	2/07	100%	
2.0 WORK TO BE PERFORMED BY GRANTEE				
2.1 Plan Preparation Activities (Consultant: Weston Solutions) (100% complete)	2.1.1 Gather Information	5/06	100%	9/06
	2.1.2 ICWMP TAC meetings	6/06	100%	
	2.1.3 Agency meetings	6/06	100%	
	2.1.4 ICWMP timeline	6/06	100%	
	2.1.5 Identify subcontractors	6/06	100%	11/06
2.2 Public Use Impact Report (Consultant: Coastal Resources)	2.2.1 Review Background Data and Reports	6/06	100%	5/07
	2.2.2 Public Use Report	8/07	75%	
2.3 Urban Runoff Flow and Water Quality Assessment (Consultant: Weston Solutions)	2.3.1 Review baseline data (in progress)	03/08	100%	
	2.3.2 Review and collect water quality data (in progress)	03/08	100%	
	2.3.3 Drainage Area Water Quality Assessment Reports	7/06	100%	

2.4 Cross-Contamination Impacts (Consultant: Everest International Consultants)	2.4.1 Review previous Newport Coast and Laguna Beach watershed reports	8/06	100%	4/07
	2.4.2 Review existing coastal watershed program, marine habitat sites and monitoring programs	8/06	100%	4/07
	2.4.3 Establish range of loading rates for specific constituents	9/06	100%	8/08
	2.4.4 Review water quality data for CCA #69	8/06	100%	8/08
	2.4.5 Review sediment discharge data	8/06	100%	8/08
	2.4.6 Review longshore current and pollutant transport data	8/06	100%	8/08
	2.4.7 Pollutant Loading Report (* report includes results from Tasks 2.4.3 to 2.4.7.)	10/06	100%	8/08 8/08
	2.4.8 Expand GIS database	2/07	50%	8/08
	2.4.9 Prepare the hydrodynamic and water quality model	11/06	100%	8/08
	2.4.10 Estimate typical currents using the model	12/06	100%	8/08
	2.4.11 Prepare a Particle Tracking Analysis	1/07	90%	
	2.4.12 Draft Cross-Contamination Impact Report	2/07	100%	
	2.4.13 Final Cross-Contamination Impact Report	3/07		
2.5 ASBS Research and Data Collection and Pilot Renovation Program (Consultants: Weston Solutions, UCI and Cal-State Fullerton)	2.5.1 Review data from other marine protection areas.	7/06	100%	5/07
	2.5.2 Review flow and water quality report from the Cities of Newport Beach and Laguna Beach	7/06	100%	
	2.5.3 Define a toxicological study	3/08	100%	
	2.5.4 Conduct the toxicological study	3/08	100%	
	2.5.5 Define ASBS baseline information. Prepare a monitoring mitigation plan (MMP). Define a comparison study with a reference ASBS	3/08	100%	
	2.5.6 Implement MMP and Comparison Study (Biological Surveys)	11/06	85%	
	2.5.7 Define a Pilot Renovation Experiment	5/07	100%	
	2.5.8 Implement a Pilot Renovation Experiment 2 ND PHASE	03/08	80%	
	2.5.9 Add ASBS's to Mineral Management Services tracking program COORDINATE WITH BIGHT 08			

2.6 Coordinate Elements into ICWMP (Consultant: Weston Solutions)	2.6.1 Develop metric	9/06	75%	
	2.6.2 Draft Integrated Coastal Watershed Management Plan (ICWMP)	11/07	100%	4/07
	2.6.3 TAC review of ICWMP	12/07	100%	5/07
	2.6.4 Final ICWMP	2/08	100%	11/07
2.7 CEQA Documentation and Permits (Consultants: Cal-State Fullerton and Weston Solutions) (100% complete)	2.7.1 Obtain list of required Permits, CEQA	2/072/07	100%	1/07
	2.7.2 Submit permits, CEQA		100%	
2.8 Community Outreach and Agency Training (City is the lead on this task)	2.8.1 Submit website information	10/07	50%	
	2.8.2 Public Forums	8/07	85%	
	2.8.3 Training Manuals	12/07	20%	

Introduction

This grant project implements a series of assessment and studies to identify, investigate and quantifying those environmental impacts having the most deleterious effects on the water quality and habitat of the ASBS. These studies include:

- water quality and flow assessment of the coastal canyons and ASBS,
- Newport Bay cross contamination study
- public use impact assessment
- toxicity testing, bioaccumulation studies and biological survey

The field studies are complete and the information is now being analyzed. Based on the findings of these studies, an ASBS Impact Metric will be prepared that will semi-quantitatively present the weight of evidence on the environmental impacts of most concern.

A monitoring mitigation plan will present the findings of the assessment studies and proposed Impact Metric. The Impact Metric will be used as the assessment tool to establish priority issues to be addressed under a mitigation management plan for the ASBS. The mitigation management plan will be included into the ICWMP (Task 2.6) and will summarize management strategies to be used for addressing the prioritized issues. The management plan will also include a mitigation monitoring program (Task 2.5.6). The Impact Metric will also be used to assess the effectiveness of the management measures in reducing the impacts to the marine ecology.

Finally, under this grant, a pilot restoration effort was initiated to restore a native marine plant species, rockweed, into the rocky intertidal areas at the mouth of Buck Gully.

Program Progress

Most contact tasks have now been completed. The primary outstanding tasks are the completion of the report for the Public Use Impact Studies and then the completion of the Impact Metric which is now 75 percent complete. It is expected to be completed by January 2009.

Cal State University – Fullerton has adjusted its restoration efforts at Little Corona and has requested a no-cost extension to the contract schedule to June 2009 in order to see how the new restoration efforts unfold.

Therefore, the City has submitted a request to extend the term of the contract to June 30, 2009. A resolution has been submitted to Council to amend the original resolution to allow the City Manager to execute amendments to the original contract.

On another note, results from the tasks performed under this contract have been used in preparation of a Central Orange County Integrated Regional and Coastal Water Management Plan which includes the Newport Bay Watershed which drains to the ASBS along Newport Coast. A copy of that draft plan is attached.

Task Accomplishments (May 1 – October 30, 2008)

This section describes the status of each of the contract tasks.

Task 1.0 Project Assessment and Evaluation Plan (PAEP), Monitoring Plan, Quality Assurance Project Plan (QAPP) and California Environmental Quality Act

The PAEP, QAPP and Monitoring Plan are complete. The Evaluation Assessment will be prepared based on the PAEP and presented in the Impact Metric report. The Evaluation Assessment will summarize the results of the studies conducted under this grant project that are the basis for the development of the Impact Metric. The expected outcomes and effectiveness measurements will also be presented. During this period, the development of the Impact Metric was initiated after completion of the ASBS studies. Work was originally scheduled for completion, along with the project assessment, March 2008. The completion of the Impact Metric and Assessment has been delayed due to field conditions and the new anticipated completion of this work is August 2008.

Task 2.1 Plan Preparation Activities

This task has been completed.

Task 2.2 Public Use Impact Report

2.2.1 Review Background Data and Reports

This sub-task has been completed.

2.2.2 Public Use Report

The work completed during this period included completion of the year-long public use impact studies and compilation of the results. Work on the Public Use Report was initiated this period and the draft report is anticipated for submittal in December 2008. The Final Report is anticipated for completion in January 2009.

Preliminary results from the Public Use Impact Study were used to develop the priorities and scope of the alternatives presented in the Newport Coastal Watershed Management Plan (Task 2.6). The alternatives included in this plan included a public use impact reduction program. Components of this concept program include expanding the current docent program, improving ASBS protection signage, using touch tanks at designated educational facilities and a pilot public-access control project. Further recommendations will be presented in the Public Use Report.

Task 2.3 Urban Runoff Flow and Water Quality Assessment

This task is completed. The results of the additional ASBS studies including the additional toxicity tests, bioaccumulation studies and biological surveys of the rocky inter-tidal will be presented in the mitigation monitoring plan (Task 2.5.6) and the mitigation management plan (Task 2.6).

Task 2.4 Cross Contamination Impacts

2.4.1 Review previous Newport Coast and Laguna Beach watershed Reports

This subtask is completed.

2.4.2 Review Existing Coastal Watershed Program

This subtask is completed.

2.4.3 Establish Range of Loading Rates for Specific Constituents

This subtask is completed.

2.4.4 Review Water Quality Data for CCA#69

This subtask is completed.

2.4.5 Review Sediment Discharge Data

This subtask is completed.

2.4.6 Review Long-shore Current and Pollutant Transport Data

This subtask is completed.

2.4.7 Pollutant Loading Report (Results from Tasks 2.4.1 to 2.4.6)

The Final Pollutant Loading Report, along with the Final Cross Contamination Report (Task 2.4.13) was submitted in August 2008 and is attached. This task is now completed.

2.4.8 Expand the GIS Database

This subtask is completed.

2.4.9 Prepare the Hydrodynamic and Water Quality Model

This subtask is completed.

2.4.10 Estimate Typical Currents with Model

This subtask is completed.

2.4.11 Prepare a Particle Tracking Analysis

This subtask is completed.

2.4.12 Draft Cross Contamination Impact Report

The draft Cross Contamination Report was submitted by Everest in August 2008 and is attached. This task is now completed.

2.4.13 Final Cross-Contamination Impact Report

The Final Cross Contamination Impact Report is anticipated for submittal in January 2009.

Task 2.5 ASBS Research and Data Collection and Pilot Renovation Program

2.5.1 Review Data from other Marine Protection Programs

This subtask is completed.

2.5.2 Review Flow and Water Quality Reports

This subtask is completed.

2.5.3 Define Toxicity Study

This subtask is completed.

2.5.4 Conduct Toxicity Study

This subtask is completed.

2.5.5 Define Baseline ASBS Baseline Information

This subtask is completed.

2.5.6 Implement Monitoring Mitigation Plan and Comparison Study

This task is complete.

2.5.7 Define a Pilot Renovation Experiment

Subtask is completed.

2.5.8 Implement a Pilot Renovation Experiment

The purpose of this study is to test the efficacy of several methods for experimentally reestablishing *Silvetia compressa* at Little Corona del Mar (CDM) in Orange County, California. The ultimate goal is to: a) determine an effective procedure that can be used to re-establish *Silvetia compressa* at this site, and 2) re-establish this rockweed at CDM where it was prevalent previous to the 1950s. This study was implemented in two stages.

In stage I, California State University at Fullerton (CSUF) investigated two methods involving the transplantation of juvenile thalli (< 2.5 cm in diameter) and the relocation of fertile reproductive structures starting in February 2007. The effects of grazing and canopy-protection, two factors known to influence the success of early post-settlement stages of rockweeds, such as *Silvetia*, also were determined. Stage I studies were conducted at four study sites using a three-way factorial design. The transplanted and seeded replicates were monitored monthly which will continue until ~July 2008. As of March 2008, CSUF have not been successful in re-establishing recruits from our initial, two-month seeding technique. Transplantation of juveniles has resulted in relatively low survival, although survival was enhanced by the presence of the experimental canopy treatment.

In stage II studies, initiated in January 2008, a third method was chosen entailing the transplantation of fertile adult thalli (15-40 cm in length) and juvenile thalli onto both horizontal (< 30°) and the landward sides of vertical (> 45°) surfaces at Little Corona del Mar. Similar sized individuals on both types of surfaces were marked at Morning Canyon, but not manipulated, to compare transplants with natural survival rates. Monthly monitoring of these transplants and marked plants will continue until ~ January 2009. As of April 2008, we have found moderate survival of transplants, although transplant survival was slightly less than natural survival rates. In addition, we found that adult transplants exhibit higher survival than juvenile transplants and that greater survival for both size classes occurs on vertical surfaces.

Although it is still too early to tell, given the survival rates of transplanted materials and the high number of transplants placed at Corona del Mar in stage II, CSUF expect an overall successful re-establishment of the rockweed population at the site.

Due to the site condition challenges and need for modifying restoration techniques, additional time has been requested by CSUF to complete Stage II studies at no additional cost.

Task 2.6 Coordinate Elements into Integrated Coastal Watershed Management Plan

2.6.1 Develop Impact Metric

Progress during this period included completion of the ASBS special studies and the initiation of the development of the Impact Metric framework. The results of the biological surveys, water quality monitoring, bioaccumulation studies and restoration pilot project were used as a basis for the development of the Impact Metric. The development of the Impact Metric is also being coordinated with the regional study work plan development for Bight08 and the Ecosystem Assessment framework that is being developed for the La Jolla Shores ASBS by the City of San Diego and Scripps Institute of Oceanography.

The draft Impact Metric Technical Report is in progress and expected to be submitted in December 2008. The final report is anticipated in January 2009.

2.6.2 Draft Integrated Coastal Watershed Management Plan

The draft Newport Coastal Watershed Management Plan was completed in May 2007.

2.6.3 TAC and Stakeholder Review

The presentation of the draft Newport Coastal Watershed Management Plan to the stakeholders was given in May 2007.

2.6.4 Integrated Coastal Watershed Management Plan

This task is complete. The Final Newport Coastal Watershed Management Plan was completed in November 2007. Comments from the stakeholders were incorporated in the final plan.

Task 2.7 CEQA Documentation and Permits

This task is completed.

Task 2.8 Community Outreach and Agency Training

2.8.1 Website Information

Information on the ASBS program can be found on the City's website:

<http://www.city.newport-beach.ca.us/watershed/>

2.8.2 Public Forums

The ASBS program was presented at the California Non-point Source Conference on May 6th, 2008 in San Diego. Another presentation is planned for June 10 at the Southern California Coastal Water Research Project Bight '08 coordination meeting.

2.8.3 Training Manuals

Work has begun to adapt portions of the ICWMP into material useful for planning and monitoring activities in and around the ASBS.

Project Budget

No new costs were incurred in the past period: all consultants are performing tasks specified in their contracts.

Submitted by: _____ Date: _____

Attachments:

- Cross Contamination Report: Main Report and Appendices A and B - 2 copies each
- Central Orange County Integrated Regional and Coastal Water Management Plan – 2 copies