



City of East Palo Alto Proposition 1E IRWM Stormwater Flood Management Grant Application Runnymede Storm Drain Phase II and O'Connor Pump Station Outfall Project

Attachment 6 – Monitoring, Assessment, and Performance Measures

Attachment 6 is mandatory. Describe the performance measures that will be used to quantify and verify project performance. Provide a discussion of the monitoring system to be used to verify project performance with respect to the project benefits or objectives identified in the Proposal. Indicate where the data will be collected and the types of analyses to be used. Include a discussion of how monitoring data will be used to measure the performance in meeting the overall goals and objectives of the IRWM Plan.

This attachment presents the planned project monitoring, assessment, and performance measures that will demonstrate that the Proposal will meet its intended goals, achieve measurable outcomes, and provide value to the State of California. The purpose of Attachment 6 is to provide a preview of the information that would go into a monitoring plan.

For Attachment 6, applicants are required to submit Project Performance Measures Tables specific to their Proposal. Project Performance Measures Tables should include the following items:

- *Project goals*
- *Desired outcomes*
- *Targets – measurable targets that are feasible to meet during the life of the project(s)*
- *Performance indicators – measures to evaluate change that is a direct result of the project being built*
- *Measurement tools and methods – to effectively track performance*

A Project Performance Measures Table should be submitted for each project included in the Proposal. When multiple projects carry the same goals and outcomes, a combined table can be developed to cover those projects. The measurement parameters (metrics) should fit the performance evaluation needs of the Proposal. The metrics should include decreased flood damages, and may include water quality measurements, measurement-based estimates of pollution load reductions, acres of habitat successfully restores, feet of stream channel stabilized, groundwater level measurements, or other quantitative measures or indicators.

Before DWR can award funding for SWFM projects, it must be demonstrated that the projects reduce flood risks, and this is measured primarily by the reduction in flood damages and other adverse flood consequences. If the grant application is successful, upon implementation of the proposal, the monitoring tables should be used to develop the project monitoring plan.

Introduction

This attachment describes the performance measures that will be used to quantify and verify the performance of the Runnymede Storm Drain Phase II and O'Connor Pump Station Outfall Project.

A Project Performance Measures table has been prepared for the Project and is included in this attachment as Table 1. The table provides a description of Project goals, desired outcomes, output indicators, outcome indicators, measurement methods and tools, and targets for the Project. This information demonstrates the methods to measure results of the Project with respect to meeting the overall goals and objectives of the Bay Area Integrated Regional Water Management (BAIRWM) Plan.

Following the table are additional notes on the monitoring system that will be used to verify Project performance, and the data management methods and analyses that will be employed. A final section indicates how the monitoring results will correlate with the objectives of the City of East Palo Alto's grant proposal, the BAIRWM Plan, and State of California preferences. As described in Attachment 3 – Work Plan, the information provided in Attachment 6 will form the foundation for a Monitoring Plan specific to the Project.



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Table 1: Runnymede Storm Drain Phase II and O’Connor Pump Station Outfall Project

Project Goals	Desired Outcomes	Output Indicators	Measurement Tools & Methods	Targets
Improve flood protection by reducing the area and depth of inundation in extreme rainfall events.	Improved conveyance channel capacity and new berm construction provide adequate protection from flooding.	Stormwater is contained in the conveyance channel and pond. Stormwater adequately flows to appropriate drainage inlets.	Monitor existing rainfall and San Francisquito Creek flow data. Monitor number of flood events in City per year, documented with photographs.	Flood events caused by inadequate conveyance system capacity in East Palo Alto are eliminated.
Improve conveyance capacity of the drainage channel and retention pond by dredging existing sediment and constructing new berm.	Storm drain channel and pond provide adequate capacity for current and future extreme rainfall events.	Capacity of channel and pond. Water level inside the channel and pond.	Monitor existing rainfall and San Francisquito Creek flow data Measure water surface elevation in South Channel relative to new berm during high flow events	Street flooding due to conveyance system backup is eliminated. Water level does not overtop the new berm or flood adjacent areas.
Maintain integrity of the O’Connor Pump Station.	Grout injection beneath the pump station outfall structure floor to provide a level surface that reduces bank erosion and undermining.	Maintenance of uniform discharge elevation across lip of outfall floor	Annually inspect bank for undermining and check elevation of outfall structure lip to document any future differential settling	No observable erosion. No change in elevation across outfall structure lip.
Provide wetlands ecosystem restoration.	Restored ecosystem and wildlife habitat with successful growth of wetlands plant species.	Diverse, sustainable plant and wildlife communities.	Observations of plant/wildlife activity.	Plant/wildlife species propagate newly restored habitat.

Monitoring System: The City of East Palo Alto will regularly collect and maintain information regarding the capacity of the stormwater conveyance system and pump station capacity. In addition, record keeping of any flood event (2-year to 100- year) will be implemented in order to assess the success of the conveyance system improvements. The reporting task associated with this grant will include a compilation of existing data taking photographs and field measurements used to assess progress toward the Runnymede Phase II project objectives, as described in Attachment 3 – Work Plan.

Data Management and Analyses: As discussed above, the City of East Palo Alto will compile existing stormwater flow, flooding, and other project-related data. Data will be maintained and conveyed in spreadsheets,



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photographs, hard-copy, and/or PDFs. The data will be stored in a readily retrievable manner. The data for actual flooding will be compared to the Project objectives.

Monitoring for IRWM Plan Goals and Objectives: The Data Management and Analyses findings will be compared against the goals and objectives of the BAIRWM Plan, as denoted below:

- Reduce dependence on imported water
- Protect, conserve, and augment water supplies
- Protect and improve water quality**
- Protect people, property, and the environment from adverse flooding impacts**
- Protect and restore habitat and ecosystems in our watersheds**
- Provide water-related public access, recreational, and educational opportunities**