






Sewer Authority Mid-Coastside

Wet Weather Flow
Management Project
Risk Analysis
Summary Report

December 10, 2007

REVISED FINAL

Discussion Outline

-  Problem Statement
-  Draft Alternatives
-  Status Report
-  Risk Analysis Basis
-  Board Requests and Responses

Problem Statement



SAM facilities lack the storage and transmission system capacity to accommodate stormwater flows






Overflows may happen with discharge going directly into the Pacific Ocean, contaminating the water and beaches with pathogens and bacteria










Wet Weather Flow Management Project (WWFMP) developed to address the overflows

Draft WWFMP Alternatives

-  New 14-inch-diameter Granada force main parallel to the existing force main
-  New 600,000-gallon storage tank near the existing Portola Pump Station
-  No Project – Do Nothing

Status Report

-  Part I Risk Analysis of Alternatives July 2007
-  Part II Risk Analysis of Alternatives Aug. 2007
-  Part III Risk Analysis of Alternatives Sept. 2007
-  Part IV Risk Analysis of Alternatives Oct. 2007
-  Coastside Managers Meeting Oct. 2007
-  Report on the Managers Meeting Nov. 2007
-  Final Summary Report on Analysis Dec. 2007

Status Report (cont.)



The WWFMP will improve SAM's ability to convey excess flows during wet weather



The WWFMP is being implemented in two phases:

- ✦ Environmental Phase – Notice of Preparation under CEQA published; Scoping Meeting completed
- ✦ Implementation Phase



SAM is pursuing two grant funding opportunities:

- ✦ Clean Beaches Initiative (State) \$1,181,000
- ✦ Pre-Disaster Mitigation (Federal) \$3,000,000



Risk Analysis Basis

Board requested that staff review the draft WWFMP alternatives based on existing information and relative to:



Permitting



Public Perception



Consistency with EPA Findings



Schedule and Cost Impacts

Additional Board Requests



Develop estimated costs of anticipated Granada Force Main repairs over the next 25 years



Develop estimated costs for:

- 五* PPS upgrade with new force main
- 五* PPS upgrade with storage tank
- 五* PPS upgrade without new force main
- 五* PPS upgrade without storage tank

Board Request No. 1: Estimate 25-year cost of the existing Granada

Force Main repairs: \$11.58M

Emergency repairs of each force main	\$50,000 each
Replacement of most vulnerable portions approximately 1,800 feet replaced each	\$720,000 initial cost in 2010 every five years
25 years to replace the entire 8,850 feet	5 projects
Minor repairs limited to outside only	Add 5 percent to replacement costs
Cost escalation	3 percent
State or federal grant funding to offset cost	none
Discount factors	none
SSO fines	from \$0.258/gallon to \$10/gallon Assume equal to 10 percent to SSO fines
Legal and third party fees	

Board Request No. 2: Comparison of PPS Upgrade Costs*

Alternatives/ Project Elements	New Storage Tank	New Parallel Force Main	No Project
Pump and Appurtenances Modifications	\$1.2M	\$1.8M	\$1.2M
Overflow Structure	\$0.2M	-	-
Total Estimated Cost of PPS Upgrades	\$1.4M	\$1.8M	\$1.2M
Cost Differential Compared to No Project	\$200,000	\$600,000	-

*Source: Carollo and WBA, 2007

Risk Analysis Results

The risk analysis conducted to date resulted in two main conclusions:



The NO-Project alternative carries the highest risk and highest cost to SAM and the public



No fatal flaws were identified for the storage tank and/or the parallel force main draft alternatives