

## Attachment A

### Old Mission Dam, Flume and Waterworks Restoration and Preservation Project

### *Scope of Work and Preliminary Cost Estimate*

PHASE/ TASK	PHASE / TASK DESCRIPTION	TASK BUDGET
<b>1.0</b>	<b>Phase 1-- Dam Dredging &amp; Mitigation</b>	
1.1 thru 1.7	City of San Diego has already secured a funding source to cover all seven Phase 1 tasks and field work is scheduled to begin shortly. Phase 1 tasks include, clearing/grubbing behind Dam; dredging of 950 cubic yards of silt behind Dam; silt hauling; CEQA Mitigation (site work, irrigation, planting 2,500 natives and native hydroseeding); and Construction Mitigation Plans (includes biological inspections and monitoring pursuant to CEQA).	
	<b>Phase 1 Subtotal</b>	<b>\$529,000.00</b>
<b>2.0</b>	<b>Phase 2 -- Dam Restoration &amp; Stabilization</b>	
2.1	<b>Dam Repair</b> - Contract to repair damaged section at north end of Dam (approximately 19 feet long x 3 feet tall x 2 feet thick) with cement and stones (located in immediate vicinity) to restore historic integrity.	\$190,000.00
2.2	<b>Stabilization Study</b> - Underwater analysis, core sampling, structural analysis, detailed cost estimates and preparation of construction documents.	\$100,000.00
2.3	<b>Stabilization</b> - Contract to perform recommended stabilization to required historic standards	\$350,000.00
2.4	<b>Mitigation</b> - Complete mitigation required by CEQA for disturbance of vegetation during stabilization work	\$40,000.00
2.5	<b>Project Management</b>	\$30,000.00
2.6	<b>Field Inspections</b>	\$40,000.00
	<b>Phase 2 Subtotal</b>	<b>\$750,000.00</b>
	<b>Phase 1 + Phase 2 Subtotal (Per SDRC's Five Year Plan)</b>	<b>\$1,279,000.00</b>
<b>3.0</b>	<b>Phase 3 -- Flume Mapping &amp; Assessment</b>	
3.1	<b>Flume Mapping / Ground-Penetrating Radar</b> - Contract to conduct complete mapping of 3.5-mile hand-made tile flume using field investigations, surveying, and ground-penetrating radar, or other technology, as needed.	\$50,000.00
3.2	<b>Flume Assessment Study</b> - Evaluate each flume tile (or segment of tiles) and develop site-specific recommendations for optimal restoration and permanent preservation. Evaluate structural integrity and need for underlying ground or slope stabilization and reinforcement. Develop detailed cost estimates to implement Flume Assessment Study recommendations.	\$200,000.00

Phase 1 : Not part of this COBCP. City of San Diego has secured funding for all Phase 1 tasks. Work is scheduled.

Phases 2 - 4.1: Scope of Work for this COBCP.

Phases 4.2 - 5: Not part of this COBCP. Future funding source needed.

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PHASE/ TASK	PHASE / TASK DESCRIPTION	TASK BUDGET
3.3	<b>CEQA / NEPA Compliance</b> - Work with City to meet all state and federal environmental requirements for overall project .	\$400,000.00
3.4	<b>Right of Way Issues</b> - Address as needed. Flume transects private lands (Superior Ready-Mix Mine) and federal lands (US Navy), as well as local public lands (Mission Trails Regional Park, City of San Diego)	\$23,000.00
3.5	<b>Memoranda of Understanding</b> - Develop MOUs between Conservancy and all landowners committing to compliance with preservation measures (as recommended in Flume Assessment Study) to ensure long-term protection of all flume segments and waterworks.	\$0.00
	<b>Phase 3 Subtotal</b>	<b>\$673,000.00</b>
<b>4.0</b>	<b>Phase 4 -- Flume Restoration &amp; Preservation</b>	
4.1	<b>Flume Restoration &amp; Preservation</b> - Contract to <i>initiate</i> implementation of site-specific measures (as recommended in Flume Assessment Study) to restore and preserve each segment of flume.	\$180,000.00
	<b>Phase 4 Subtotal</b>	<b>\$180,000.00</b>
	<b>Phase 3 + Phase 4 Subtotal</b>	<b>\$853,000.00</b>
	<b>Phase 2 + Phase 3 + Phase 4 Subtotal</b>	<b>\$1,603,000.00</b>
	<b>GRAND TOTAL (Scope of Work for this COBCP)</b>	<b>\$1,603,000.00</b>
4.2	<b>Flume Restoration &amp; Preservation</b> - Contract to <i>complete</i> implementation of site-specific measures (as developed in Flume Assessment Study) to restore and preserve each segment of flume.	TBD
<b>5.0</b>	<b>Phase 5 -- Interpretive Signage &amp; Educational Features</b>	
5.1	<b>Interpretive Signage</b> - Design and deploy interpretive signage at Dam, along flume, and associated waterworks.	TBD
5.2	<b>Other Educational / Interactive Features</b> - Design and deploy other educational and interactive features such as kiosks, historical photographs, and a small-scale working model of the Old Mission Dam, Flume, and Waterworks System.	TBD
	<b>Phase 5 Subtotal</b>	<b>TBD</b>
	<b>GRAND TOTAL (All Five Phases)</b>	<b>TBD</b>

Phase 1 : Not part of this COBCP. City of San Diego has secured funding for all Phase 1 tasks. Work is scheduled.

Phases 2 - 4.1: Scope of Work for this COBCP.

Phases 4.2 - 5: Not part of this COBCP. Future funding source needed.