

# Attachment 4 – Budget

## 4.1 General Overview of Budget

Attachment 4 presents the budget for EBMUD’s Chabot Dam Seismic Upgrade Project. Included are detailed estimates of the costs and funding sources for the effort by project stage. Also included is a summary budget which rolls-up the budget, presenting it in accordance with the summary approach as proposed in the grant application instructions for Attachment 4. The following tables are provided in this attachment:

- Table 4.1: Project Budget (Summary, including Grant Requests and EBMUD cost share that will be documented)
- Table 4.2: Detailed Budget (Planning / CEQA through Design Stage)
- Table 4.3: Detailed Budget (Construction Stage)
- Table 4.4: Summary Budget

## 4.2 Explanation of Budget Items in the Detailed Project Budget

EBMUD has anticipated that the total cost of the Chabot Dam Seismic Upgrade Project will be \$19,225,125. Of this amount, \$14,225,125 (~74%) is provided as non-state funding match. \$5,000,000 is being requested from the State through the Round 2 Stormwater Flood Management (SWFM) Integrated Regional Water Management (IRWM) Grant Program. Table 4.1 Table, referenced as Table 5 in Exhibit B of the Round 2 SWFM Proposal Solicitation Package (PSP), displays the overall costs for the Chabot Dam Seismic Upgrade. The specific work items detailed in Attachment 3, *Work Plan*, are reflected in the detailed cost estimates provided in Tables 4.2 and 4.3.

**Table 4.1: Chabot Dam Seismic Upgrade Project Budget (Table 5 from Exhibit B of PSP)**

Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
<b>(A)</b>	Direct Project Administration	\$0	\$650,125	\$0	\$650,125
<b>(B)</b>	Land Purchase / Easement	\$0	\$0	\$0	\$0
<b>(C)</b>	Planning / Design / Engineering / Environmental Documentation	\$0	\$3,850,000	\$0	\$3,850,000
<b>(D)</b>	Construction / Implementation	\$5,000,000	\$5,270,833.33	\$0	\$10,270,833.33

Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
(E)	Environmental Compliance / Mitigation / Enhancement	\$0	\$1,000,000	\$0	\$1,000,000
(F)	Construction Administration	\$0	\$1,400,000	\$0	\$1,400,000
(G)	Other Costs	\$0	\$0	\$0	\$0
(H)	Construction / Implementation Contingency	\$0	\$2,054,166.67	\$0	\$2,054,166.67
(I)	Grant Total (Sum rows (A) through (H) for each column)	\$5,000,000	\$14,225,125	\$0	\$19,225,125

**\*Sources of funding:** Funding for the Project has been included in EBMUD's current Capital Improvement Program (CIP) budget as well as in that proposed for FY14, FY15 and FY16. Funding for the CIP is derived from user fees as well as bond sales.

### 4.3 Work Categories and Tasks

The following discussion provides a brief discussion noting explanations and/or rationales used to prepare the budget estimate.

#### Category (A): Direct Project Administration

Category (A) covers the cost of the work associated with Task A.1: Administration, Task A.2: Labor Compliance Program, and Task A.3: Reporting, all of which are described in Attachment 3, *Work Plan*.

Direct Project Administration costs (as associated with work necessary to address the requirements of this grant effort) have been estimated at 3.5% of the overall cost of the project. Direct Project Administration Costs would be incurred by EBMUD staff in combination with the costs as incurred by a third party labor compliance plan vendor. Direct Admin costs are shown in the summary cost table (Table 4.1) as well as in the detailed cost tables (Tables 4.2 and 4.3).

#### Category (B): Land Purchase / Easement

EBMUD owns the lands within which work will be performed. No land purchase / easement costs are anticipated to be incurred.

#### Category (C): Planning / Design / Engineering / Environmental Documentation

Category (C) covers the cost of the work as associated with Task C.1: Assessment and Evaluation, Task C.2: Final Design, Task C.3: Environmental Documentation, Task C.4: Permitting, Task C.5: Monitoring Plan Development, all of which are discussed in Attachment 3, *Work Plan*.

**Table 4.2: Chabot Dam Seismic Upgrade Project Detailed Budget (Planning/CEQA through Design Stage)**

Category		Sub-Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
<b>(A)</b>	Direct Project Administration	(a) - Planning Thru Design Stages Only	NA	\$0	\$134,750	\$0	\$134,750
<b>(C)</b>	Planning / Design / Engineering / Environmental Documentation	(c.1)	Development of Conceptual Design	\$0	\$750,000	\$0	\$750,000
		(c.2)	Initial Environmental Review and Project Environmental Screening	\$0	\$50,000	\$0	\$50,000
		(c.3)	CEQA Documentation and Project Permitting (CEQA related Permits) <sup>1</sup>	\$0	\$1,200,000	\$0	\$1,200,000
		(c.4)	Embankment Upgrade Design	\$0	\$1,400,000	\$0	\$1,400,000
		(c.5)	Spillway Tower Rehabilitation Design	\$0	\$200,000	\$0	\$200,000
		(c.6)	Permits as Associated with Approval of Design (County, State, etc.)	\$0	\$250,000	\$0	\$250,000
		Sub-Total (Category (c))		\$0	\$3,850,000	\$0	\$3,850,000
		<b>Total Cost (Planning Through Design Stage, including Direct Admin)</b>				<b>\$0</b>	<b>\$3,984,750</b>
Note: <sup>1</sup> Included as Appendix 3.6 in Attachment 3 is the cost estimate for CEQA / EIR services as provided by AECOM, Inc. (those costs factor into Cost Item # C3).							

**Table 4.3: Chabot Dam Seismic Upgrade Project Detailed Budget (Construction Stage)**

Category		Sub-Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
<b>(A)</b>	Direct Project Administration Costs Incurred During Construction Stage (3.5% of Costs of (d) thru (h))	(a) - Construction Stage Only	NA	\$0	\$515,375	\$0	\$515,375
		(d.1)	Mobilization	\$50,000	\$50,000	\$0	\$100,000
<b>(D)</b>	Construction / Implementation	(d.2)	Partial Excavation and Replacement of sluiced fill at the embankment toe	\$3,000,000	\$999,000	\$0	\$3,999,000
		(d.3)	Crackstopper	\$0	\$903,000	\$0	\$903,000
		(d.4)	Installation of Automated Instrumentation	\$450,000	\$1,325,000	\$0	\$1,775,000
		(d.5)	Dewatering	\$0	420,900	\$0	\$420,900
		(d.6)	Access road improvements	\$0	250,000	\$0	\$250,000
		(d.7)	Final Paving	\$0	366,000	\$0	\$366,000
		(d.8)	Tree Removal	\$0	100,000	\$0	\$100,000
		(d.9)	Misc. Other Construction (Temporary Facilities, Demobilization, Revegetation, Etc.)	\$0	\$256,933.33	\$0	\$256,933.33

Category		Sub-Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
		(d.10)	Tower Upgrade Construction (including any Disposal costs as associated with old Tower materials)	\$1,500,000	\$600,000	\$0	\$2,100,000
		Sub-Total (Category (d))		\$5,000,000	\$5,270,833.33	\$0	\$10,270,833.33
(E)	Environmental Compliance / Mitigation / Enhancement	(e.1)	NA	\$0	\$1,000,000	\$0	\$1,000,000
(F)	Construction Administration (Construction Management)	(f.1)	NA	\$0	\$1,400,000	\$0	\$1,400,000
(H)	Construction Contingency (20% of (d))	(h.1)	NA	\$0	\$2,054,166.67	\$0	\$2,054,166.67
<b>Total Cost (Construction Stage (Including Env. Compliance During Construction, Construction Management &amp; Construction Contingency))</b>				<b>\$5,000,000</b>	<b>\$10,240,375</b>	<b>\$0</b>	<b>\$15,240,375</b>
Note: <sup>1</sup> Cost estimates as prepared using a combination of data from a recently completed project (EBMUD's rehabilitation of San Pablo Reservoir), estimates as provided by URS, Inc. as part of a prior evaluation of work required to rehabilitate Lake Chabot Reservoir), plus estimates as prepared by EBMUD's geotechnical engineers charged with the work effort							

In the fall of 2012, EBMUD entered into a contract with the engineering firm of AECOM, Inc. to prepare an Environmental Impact Report (EIR) for the work. A detailed cost break-down for the environmental effort is provided as a separate table (referencing the contract between EBMUD and AECOM). Costs as associated with other elements of budget item (C) (planning, design / engineering) were estimated by EBMUD's in-house geotechnical engineers, referencing recent cost data obtained following the completion of a similar rehabilitation project as completed recently for an earthen embankment / EBMUD reservoir (San Pablo Reservoir). The cost of obtaining necessary permits as associated with the work is also included. Work under item (C) is to be performed by a mix of EBMUD's in-house staff and outside consultants and contractors. Costs for (C) are provided in Table 4.2 as well as in the summary cost table (Table 4.1).

### **Category (D): Construction / Implementation**

Category (D) covers the cost of the work associated with Task D.1: Construction Contracting and Task D.2: Construction, both of which are detailed in the Work Plan, Attachment 3. Note that for the preparation of Attachment 3, *Work Plan*, and the Attachment 5, *Schedule*, the Construction / Implementation Task was further divided into construction subtasks. The Construction / Implementation cost estimate, while providing estimates for various components of the work, has not been subdivided into subtasks.

Costs as associated with Construction / Implementation were estimated utilizing data as obtained following the completion of a similar rehabilitation project (EBMUD's retrofit of the San Pablo Reservoir). Costs associated with (D) are provided in Table 4.3 as well as in the summary cost table (Table 4.1).

### **Category (E): Environmental Compliance / Mitigation / Enhancement**

Category (E) covers the cost of the work associated Task E.1: Environmental Compliance / Mitigation / Enhancement, as detailed in Attachment 3, *Work Plan*.

In order to address environmental and compliance needs (both during and following construction), there has been a budget established to provide such services during construction and for the installation of permanent monitoring as needed to address the requirements of the California's Division of Safety of Dams. Costs associated with (E) are provided in Table 4.3 as well as in the summary cost table (Table 4.1).

### **Category (F): Construction Administration**

Category (F) covers the cost of the work associated with Task F.1, Construction Administration, as discussed in the Attachment 3, *Work Plan*.

Construction administration costs have been estimated as based on EBMUD's prior experience with work of similar nature (in particular, the recent experience with the retrofit of EBMUD's San Pablo Reservoir). They are also a function of the total cost estimate as prepared for construction. EBMUD anticipates hiring a consultant to manage construction, with some assistance as provided by in-house staff. Construction Management Costs are listed in Table 4.3.

## Category (G): Other Costs

There are no associated “other costs” with this project

## Category (H): Construction/Implementation Contingency

The construction cost estimate as prepared for the work is based on EBMUD’s prior experience with work of similar nature (in particular, the recent experience with the retrofit of EBMUD’s San Pablo Reservoir). A contingency of 20% has been included in the construction cost estimate. Detailed Construction Costs are presented in Table 4.3.

## 4.4 Summary Budget

As required by the SWFM PSP (in Exhibit B, page 30), Table 6 must be completed as a summary budget for the entire proposal. “Table 6 – Summary Budget” is provided in the following table (Table 4.4). The Chabot Dam Seismic Upgrade is the only project included in this Proposal.

Table 4.4: Chabot Dam Seismic Upgrade Project Summary Budget (Table 6 from Exhibit B of PSP)

	Project Title	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost	% Funding Match
(a)	Chabot Dam Seismic Upgrade	\$5,000,000	\$14,225,125	\$0	\$19,225,125	74%
(b)	Grand Total	\$5,000,000	\$14,225,125	\$0	\$19,225,125	74%

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