

Staff Report

for the Board of Directors Meeting of June 27, 2018

TO: Members of the Board of Directors

FROM: Greg Jones, Assistant General Manager *GJ*

DATE: June 20, 2018

SUBJECT: Combie Sediment and Mercury Removal Project (FATR #2135):
Budget Amendment

ADMINISTRATION

RECOMMENDED ACTION:

Approve Budget Amendment Request #BA 2018-87, increasing the grant revenue and capital budget accounts for the Combie Sediment and Mercury Removal Project.

BACKGROUND:

On April 25, 2018, the NID Board of Directors approved Resolution #2018-08 authorizing the General Manager to execute the Funding Agreement and any Amendments thereto, in the amount of \$5,500,000 with the Department of Water Resources for the Combie Sediment and Mercury Removal Project. This Agreement (#4600012439) has been executed by all parties. This funding has been targeted towards the sediment removal and treatment processes of the Combie Project.

This Budget Amendment will increase grant revenue and capital budget accounts in preparation for contracting for the entire project.

BUDGETARY IMPACT:

The Combie Reservoir Sediment and Mercury Removal Project (FATR 2135) will cost \$7.5M, the District's executed grant award Agreement #4600012439 with the State of California Department of Water Resources is \$5.5M and \$2.0M is being funded from Capital Reserves.

To maintain sufficient short-term reserves, the District is liquidating approximately \$7.5M of its' long-term portfolio to cash flow the project. This saves the District from having to finance the project at short-term rates of approximately 4% for six months, thus saving \$150,000 in interest.

Attached:

- Budget Amendment Request #BA 2018-87



**NEVADA IRRIGATION DISTRICT
BUDGET AMENDMENT REQUEST**

Request Number

Req. No BA 2018 - 87

Date: 6/6/2018
 To: Remleh Scherzinger, General Manager
 From: Greg Jones, Assistant General Manager

Initial _____

Budget Transfer: Enter Operating/Capital Expenditure or Revenue line items.

Department	Object / Account	Increase/(Decrease)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Budget Increase: Enter Operating/Capital Expenditure or Revenue line items.

Department	Object / Account	Increase/(Decrease)
10115 Management	48102 Grants Dept WTR	\$ 3,500,000.00
10115 Management	52915 Proj Bud: Non-Programmatic	\$ 5,500,000.00
_____	_____	_____
_____	_____	_____
_____	_____	_____

Division Fund	Funding Account	Increase/(Decrease)
10 Water Fund	34045 Capital Reserve	\$ (2,000,000.00)
_____	_____	_____
_____	_____	_____

Explanation: Enter narrative explaining reason for amendment.

Increase grant revenue and capital budget accounts as staff is preparing to contract for entire project costs. The Combie Reservoir Sediment Mercury Removal Project 2135 will cost \$7.5M, the District's grant award is \$5.5M and \$2.0M is being funded from Capital Reserves.

APPROVALS:

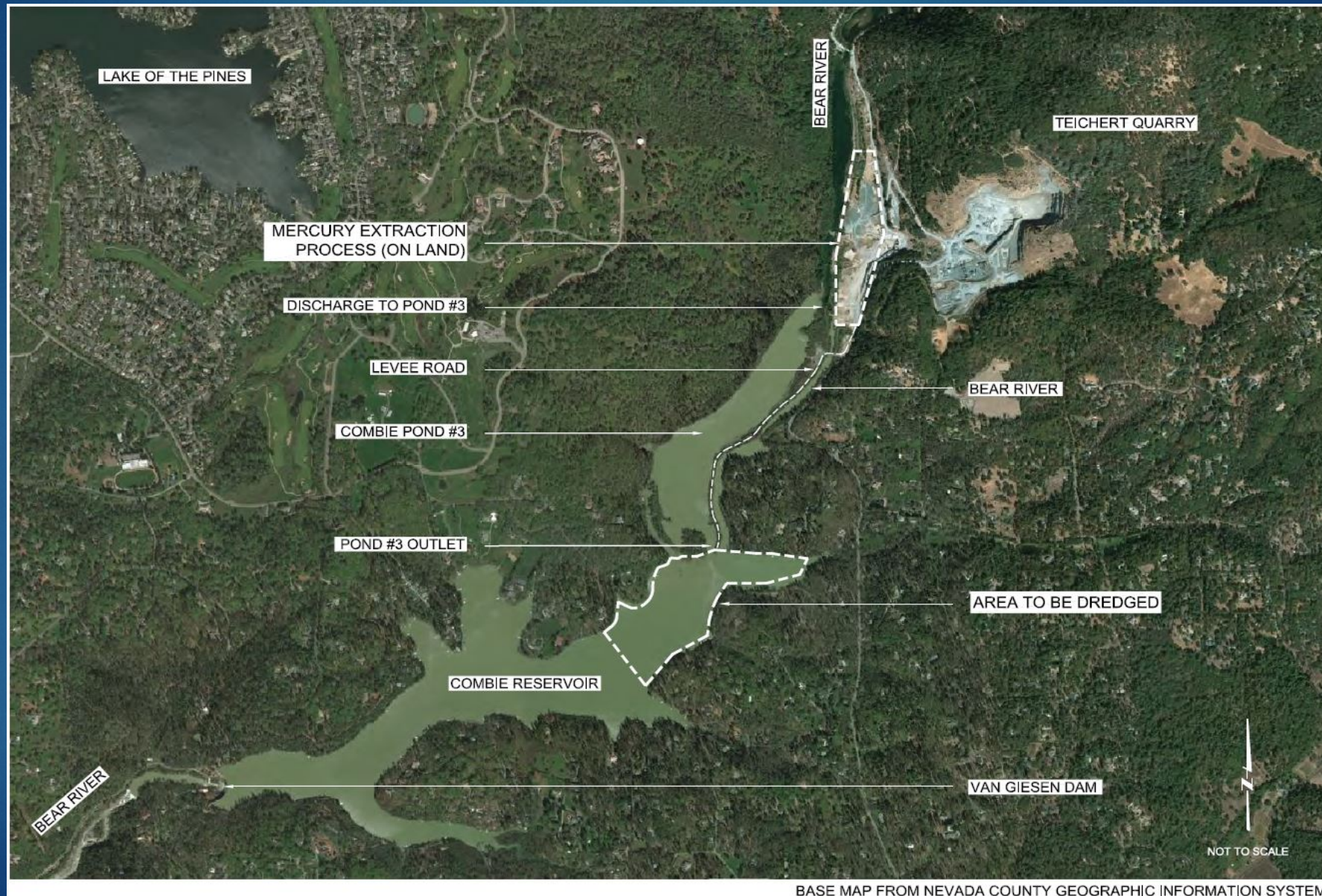
	<u>Date</u>	<u>Signature</u>	<u>AGM/FM Initials</u>	<u>Approved/Denied</u>
Level I:				
Level II:				
Level III:				

Combie Sediment & Mercury Removal Project Overview: (FATR 2135)

- ▶ Brief Project Review
- ▶ Sediment & Mercury Removal Process
- ▶ Project Consultant Structure Tree & Responsibilities
- ▶ Budget Overview
- ▶ Next Steps



Combie Reservoir Project Area Vicinity Map



Project Background Overview

- ▶ The Project evaluates the removal of mercury from sediment taken from Combie Reservoir.
- ▶ The sediment is being removed to maintain reservoir capacity and reduce potential human exposure to methylmercury.
- ▶ The process of recovering mercury will be monitored and evaluated in order to better understand mercury transport, methylation, and bioaccumulation in the Bear River system
- ▶ Mercury removed from Combie reservoir is anticipated to reduce the overall exposure of the Sacramento/San Joaquin Delta (Delta) to mercury.

Sediment & Mercury Removal Benefits

- ▶ Water Supply Reliability
- ▶ Demonstrate Effective Sediment & Mercury Removal Processes
- ▶ Process Replication
- ▶ Improve Recreational Opportunities
- ▶ Improve Aquatic Habitat & Environments
- ▶ Research & Monitoring – CA Implications

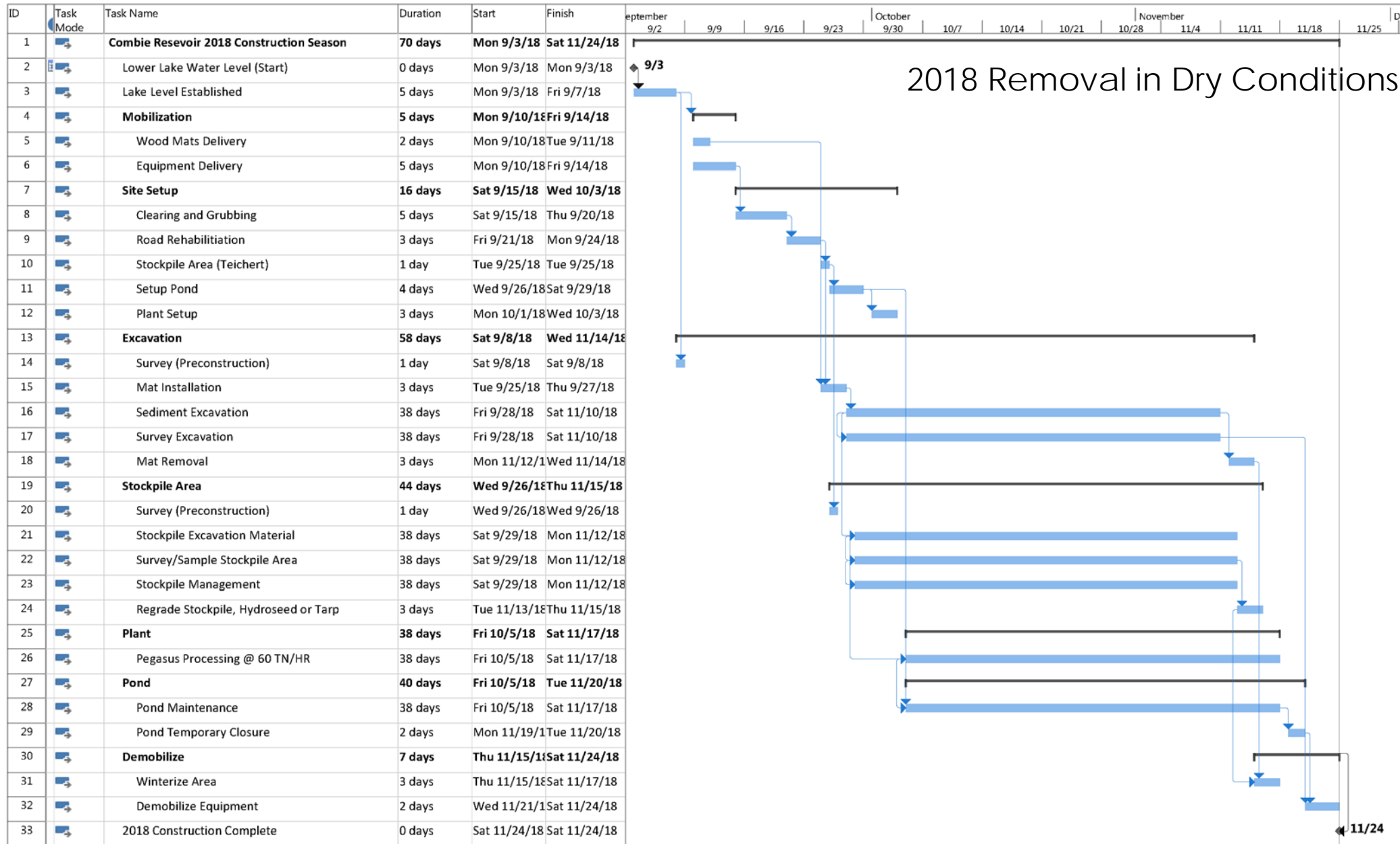
Project Permitting & California Environmental Quality Act – CEQA

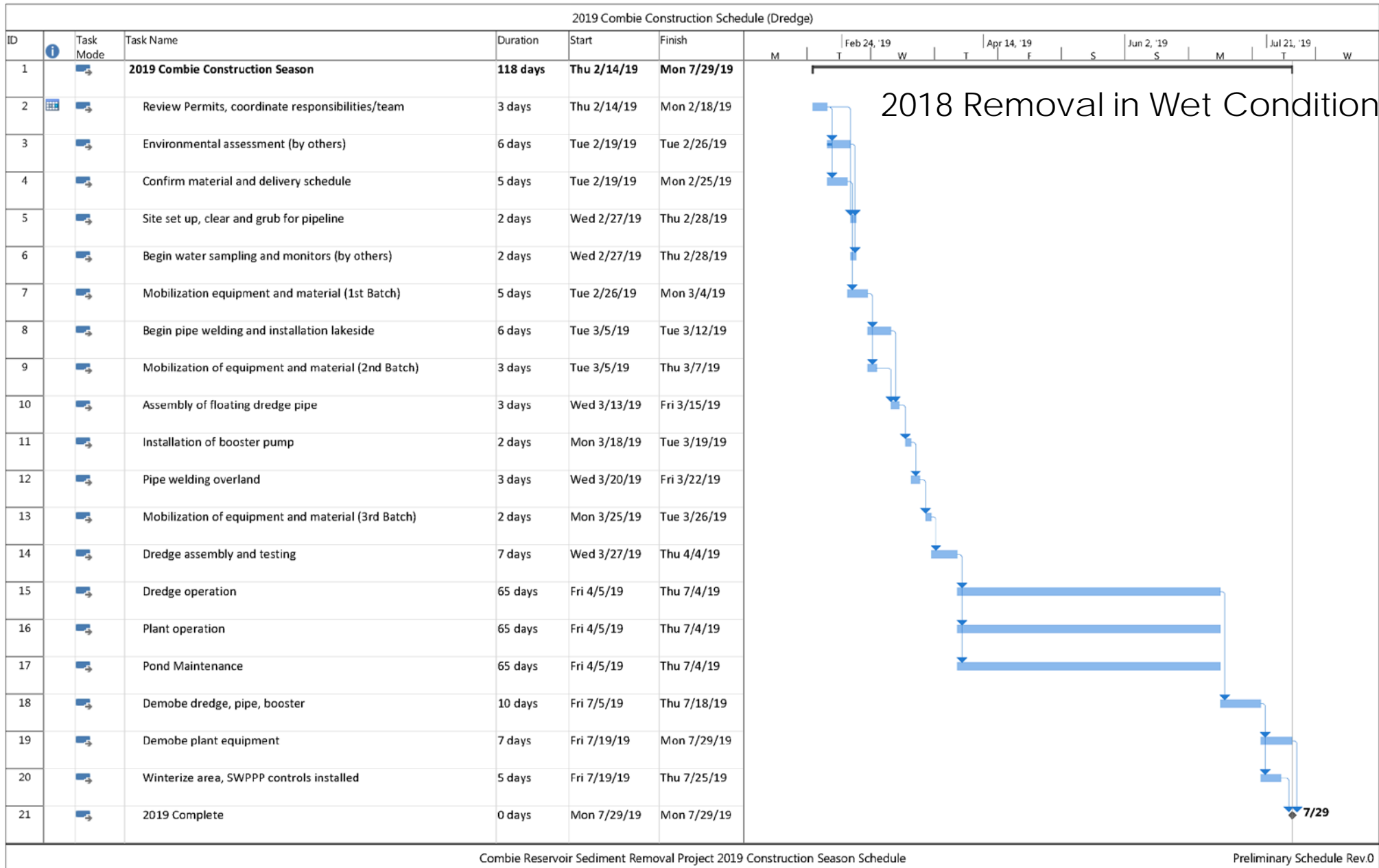


- ✓ **Mitigated Negative Declaration**
 - NID Board Certified Sept 2009
- ✓ **CVRWQCB Clean Water Act Sec. 401 Certification**
 - Originally Received Dec. 2012; Updated December 2018
- ✓ **CVRWQCB Limited Threat General Order #R5-2016-0076 & National Pollutant Discharge Elimination System (NPDES)**
 - Originally Received Dec 2012; Updated February 2018
- ✓ **CFWD Lake and Streambed Alteration 1600**
 - Originally Received Dec 2011; Extended for additional 5 years November 2017
- ✓ **USACE Nationwide 404**
 - Originally Received Feb 2011; This is a non-reporting (ongoing) Permit
- ✓ **Grading Permit and Management Plan for Engineered Fill Placement**
 - Currently in process with Placer County and USACE
- ✓ **Storm Water Pollution Prevention Plan (SWPPP)**
 - Currently in process with Placer County



Project Site Map



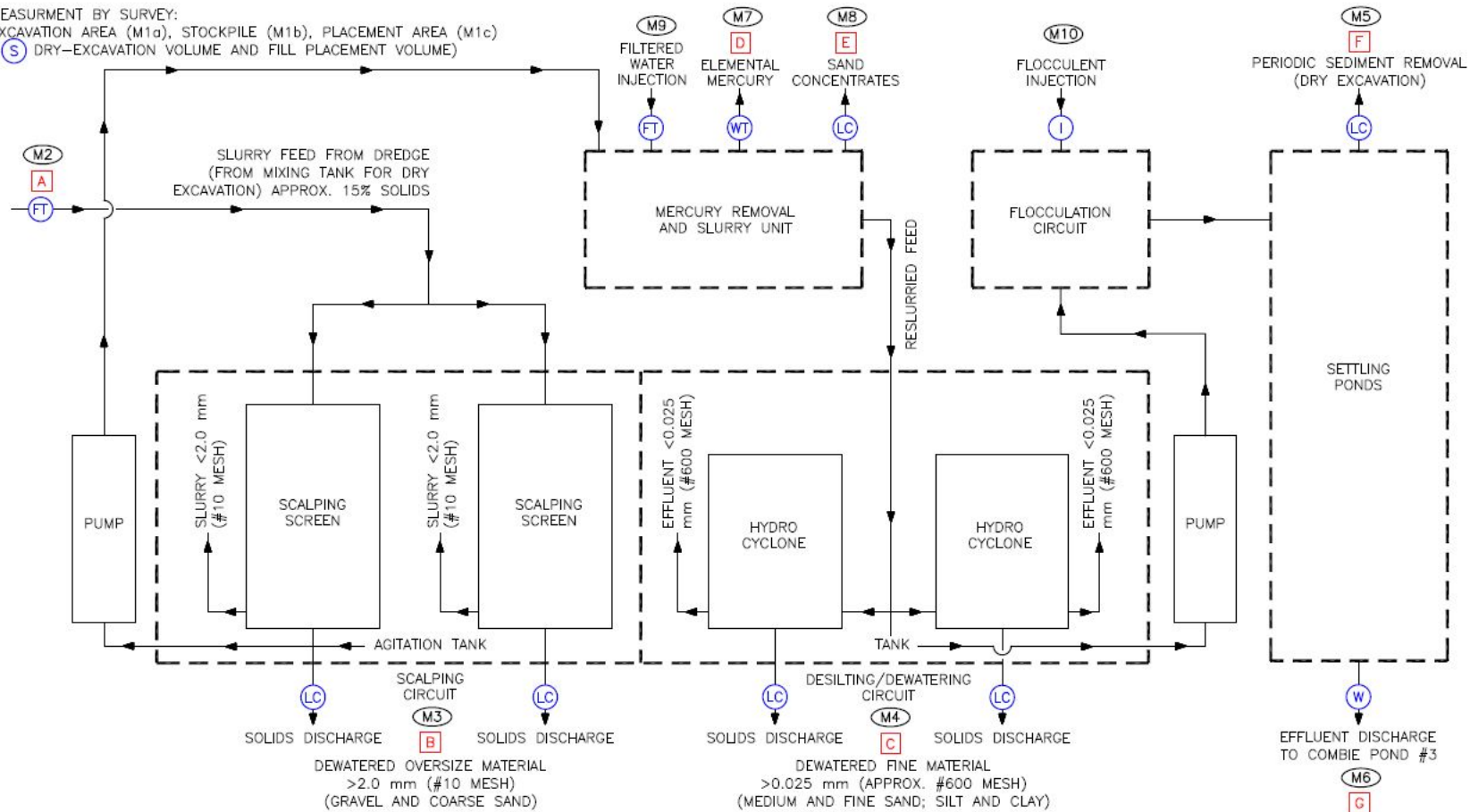


Sediment Removal Process

MEASUREMENT BY SURVEY:

EXCAVATION AREA (M1a), STOCKPILE (M1b), PLACEMENT AREA (M1c)

(S) DRY-EXCAVATION VOLUME AND FILL PLACEMENT VOLUME



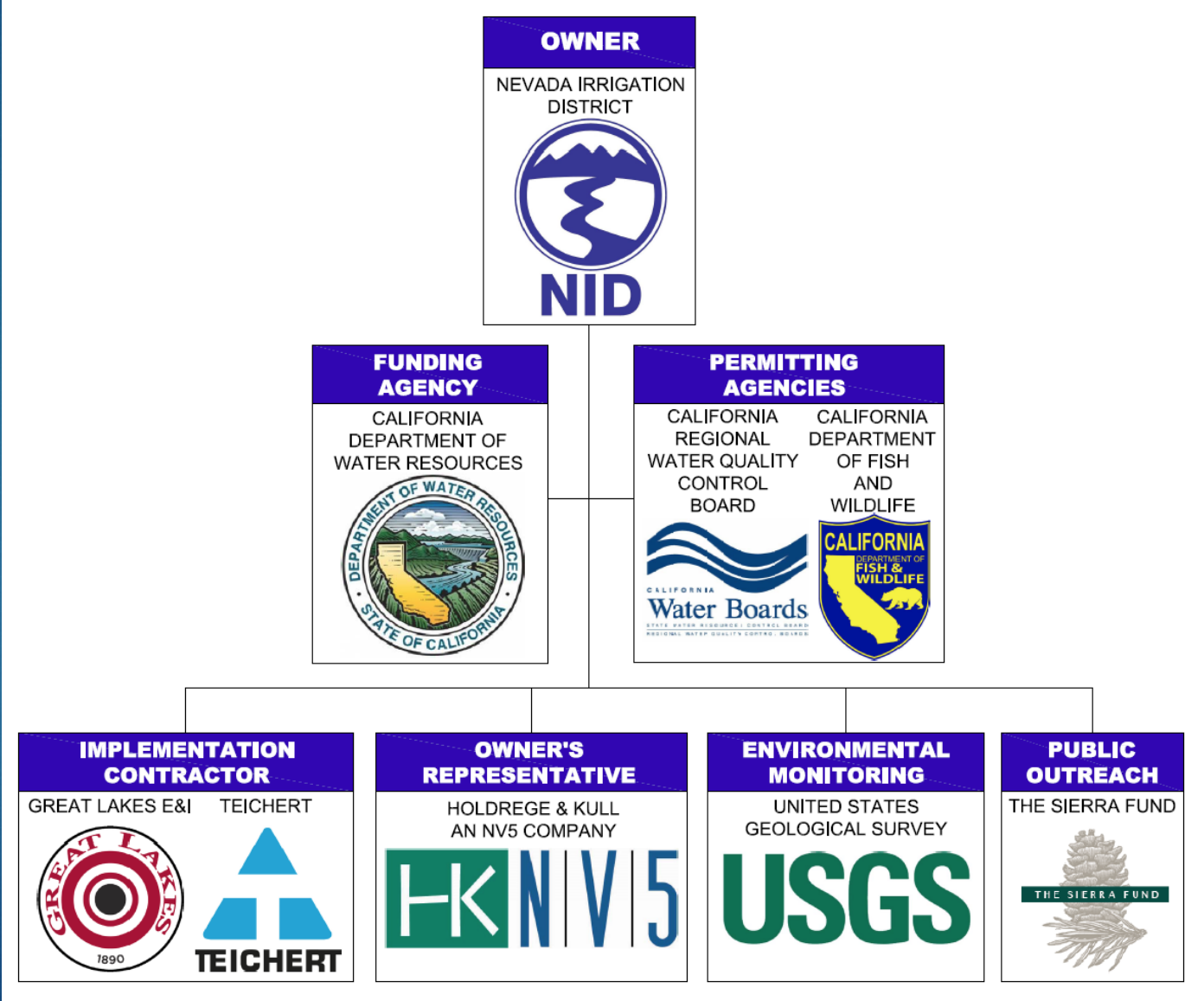
CONCENTRATION MONITORING POINTS

- A** THg MEASURED BY PRE-EXCAVATION INCREMENTAL SAMPLING AND LABORATORY ANALYSIS GRADATION AND Hg(0) MEASURED BY PRE-EXCAVATION BULK SAMPLING AND BATCH PROCESSING
- B** THg MEASURED BY INCREMENTAL SAMPLING AND LABORATORY ANALYSIS
- C** THg MEASURED BY INCREMENTAL SAMPLING AND LABORATORY ANALYSIS
- D** Hg(0) EVALUATED BY WEIGHT
- E** THg MEASURED BY INCREMENTAL SAMPLING AND LABORATORY ANALYSIS Hg(0) MEASURED BY BULK SAMPLING AND BATCH PROCESSING
- F** THg MEASURED BY INCREMENTAL SAMPLING AND LABORATORY ANALYSIS
- G** MONITORED PURSUANT TO COMPLIANCE MONITORING SCHEDULE

MASS MONITORING POINTS

- M2** MONITORING POINT NUMBER - SEE IMPLEMENTATION PLAN FOR DESCRIPTION
- FT** MEASURED BY CONTINUOUS FLOW TOTALIZER
- LC** MEASURED BY LOAD COUNTING DURING PERIODIC TRUCK LOADING
- W** MEASURED BY WEIR READING
- WT** MEASURED BY WEIGHT UPON PERIODIC TRANSPORT FOR DISPOSAL
- S** MEASURED BY PRE-SEASON AND POST-SEASON TOPOGRAPHIC SURVEY
- I** MEASURED BY DAILY FLOCCULENT INVENTORY TRACKING

Project Organizational Tree



Consultant Selection Process & Responsibilities: Project Management / Compliance Monitoring

- ▶ Selection Process
 - ▶ RFP sent to 5 firms (H&K, Sierrans, Cavello, Stillwater Sciences, Windsler & Kelly)
 - ▶ 2 proposals received (H&K/NV5: \$542,580, and the Sierrans: \$1,335,401)
 - ▶ Holdrege & Kull, An NV5 Company (H&K/NV5) demonstrated an efficient approach, depth of project understanding, and bringing the most value to the District
- ▶ H&K/NV5 Roles & Responsibilities
 - ▶ H&K/NV5 is NID's representative and is responsible for project management, including construction management (CM) and quality assurance (QA).
 - ▶ CM duties include facilitating the administration of the implementation contract and coordinating with the implementation contractor, permitting agencies, Project partner organizations, QA personnel and analytical laboratories.
 - ▶ QA duties include regulatory compliance monitoring, performance monitoring and Project documentation.

Consultant Selection Process & Responsibilities:

Implementation

▶ Selection Process

- ▶ RFP sent to 7 firms (Teichert Aggregates, Great Lakes Environmental, Robinson Enterprises, Hansen Brothers, Kewit, Granite Construction, Lawler Assoc)
- ▶ 1 proposal received (Great Lakes Environmental Inc.)
- ▶ Preliminary agreement w/ Great Lakes Environmental Inc. (GLEI) to develop a pre-project work plan based on the CEQA project description and a path to remove sediment in both dry and wet conditions.

▶ GLEI Roles & Responsibilities

- ▶ GLEI will be responsible for all Project related aspects of sediment removal & processing, equipment & materials, on-site labor & supervision, effluent water clarification, sediment placement and site safety

Consultant Selection Process & Responsibilities:

Biological Monitoring

- ▶ Selection Process
 - ▶ Sole Source selection with The United States Geological Survey (USGS) based on project design
- ▶ USGS Roles & Responsibilities
 - ▶ The USGS is responsible for the development of a model for mercury cycling in the food web in Combie Reservoir, and for evaluating changes in the mercury cycle related to Project implementation.
 - ▶ The USGS will develop the model and evaluate changes
 - ▶ USGS will monitor total mercury, methylmercury, mercury isotopes, nutrients and general water quality parameters related to environmental media (including surface water, sediment and pore water) and biota (including zooplankton and fish) in Combie Reservoir.
 - ▶ The monitoring will be performed before, during and after the Project.

Consultant Selection Process & Responsibilities:

Outreach & Education

- ▶ Selection Process
 - ▶ Sole Source selection with The Sierra Fund (TSF) based on their long-term history with the project and conceptual understanding of the historical mercury concerns.
- ▶ TSF Roles & Responsibilities
 - ▶ TSF will perform public outreach and education, including the facilitation of a technical advisory committee;
 - ▶ Communication with policy and agency leaders, regulators, consultants, and other interested stakeholders;
 - ▶ Public outreach regarding mercury in fish and fish consumption;
 - ▶ Preparation of educational materials regarding mercury and fish consumption.



Consultant Selection Process & Responsibilities: Concentrator Alteration - Pegasus

- ▶ Selection Process
 - ▶ Sole Source selection with Ted Reimchen, patent owner of Pegasus Technology – an innovative process for removing elemental mercury from sediment
- ▶ Roles & Responsibilities
 - ▶ Mr. Reimchen will determine alteration design and alterations needs of the Knelson Concentrator (KC-CDMR30).
 - ▶ Mr. Reimchen will coordinate with NID and Project partners, identify and educate in coupling the concentrator to the sediment and mercury extraction and processing system(s).

Consultant Selection Process & Responsibilities:

Sediment Deposit

- ▶ Selection Process
 - ▶ Sole Source sediment storage agreement with Teichert for long-term placement of unsellable sediment as engineered fill.
- ▶ Roles & Responsibilities
 - ▶ Teichert Materials will allow NID to store sediment on an unused section of land located near the project area.
 - ▶ Final term sheet is currently being negotiated between parties
- ▶ Sediment Sample Findings
 - ▶ In October 2016 and 2017, NID performed subsurface inorganic and organic analysis on 21 borings (up to 32' depth) and 5 bulk samples (up to 6' depth)
 - ▶ Sample concentrations were below human health screening levels of both the United States Environmental Protection Agency (USEPA) and the California EPA Department of Toxic Substances Control (DTSC)

Project Budget

		DWR (10115-52915)	NID Funds (10115-52915)	Totals	Contractor	FY Period
Task	Description					
1	Project Management / Compliance Activities	\$ -	\$ 519,774	\$ 519,774	H&K/NV5	2018 - 2020
2	Concentrator Alteration & Mercury Consultation	\$ 100,000	\$ -	\$ 100,000	T. Reimchen	2018 - 2019
3	Knelson Concentrator	\$ 209,143	\$ -	\$ 209,143	FLSmidth	2017 - 2018
4	Sed Removal & Mercury Recovery Operations	\$ 4,576,000	\$ 42,723	\$4,618,723	GLEI	2018 - 2020
5	Sediment Disposal	\$ -	\$ 600,000	\$ 600,000	Teichert	2018 - 2020
6	Biological Research Activities & Reporting	\$ 400,000	\$ 660,263	\$1,060,263	USGS	2017 - 2022
7	Community Engagement & Outreach	\$ -	\$ 100,000	\$ 100,000	TSF	2017 - 2020
N/A	Budget Unallocated	\$ 214,857		\$ 214,857	Unallocated Sed. Removal	
	Project Total	\$ 5,500,000	\$ 1,922,760	\$7,422,760		2017 - 2022

Next Steps

- ▶ Approve Budget Amendment #BA 2018-87
- ▶ Award Contracts to:
 - ▶ GLEI @ \$4,618,723
 - ▶ H&K/NV5 @ \$519,774
 - ▶ USGS @ \$868,670
 - ▶ Teichert @ \$600,000