

**GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND  
MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT  
GRANT AGREEMENT 4600009671  
PROPOSITION 1E ROUND 1 STORMWATER FLOOD MANAGEMENT GRANTS  
CALIFORNIA WATER CODE §83002 and PUBLIC RESOURCES CODE §5096.827 ET SEQ**

THIS GRANT AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the "State" and the Marin County Flood Control and Water Conservation District, a local agency in the County of Marin, State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee", which parties do hereby agree as follows:

1. PURPOSE. State shall provide a grant from the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Public Resources Code (PRC) §5096.827 et seq.) to Grantee to assist in financing the project associated with the Phoenix Lake Integrated Regional Water Management Retrofit for the Stormwater Flood Management (SWFM) Program, collectively referred to as "SWFM Program."
2. TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on the date this Grant Agreement is executed by the State, and terminates on September 1, 2017, or when all of the Parties' obligations under this Grant Agreement are fully satisfied, whichever occurs earlier. Execution date is the date the State signs this Grant Agreement indicated on page 9.
3. GRANT AMOUNT. The maximum amount payable by State under this Grant Agreement shall not exceed \$7,661,000. Reimbursement of grant funds may be claimed after December 21, 2011.
4. GRANTEE COST SHARE. The reasonable costs for this Grant Agreement are estimated to be \$19,691,150. Grantee shall provide a Cost Share (Funding Match) in the amount of at least 50% of the total project cost. Grantee's Funding Match is estimated to be \$12,030,150. Grantee's Funding Match may include cost share performed after September 30, 2008. Funding Match consists of non-State funds including in-kind services. In-kind services are defined as work performed (i.e., dollar value of non-cash contributions) by the Grantee (and potentially other parties involved) directly related to the execution of the scope of work (*examples*: volunteer services, equipment use, and facilities). For Funding Match guidance, see Exhibit G.
5. GRANTEE'S RESPONSIBILITY. Grantee shall faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Exhibit B (Schedule) and Exhibit C (Budget). Grantee shall comply with all of the terms and conditions of this Grant Agreement and applicable PRC and CWC requirements.
6. BASIC CONDITIONS. State shall have no obligation to disburse money for a project under this Grant Agreement unless and until Grantee has satisfied the following conditions in accordance with the Disaster Preparedness and Flood Prevention Bond Act of 2006.
  - a) Grantee demonstrates the availability of sufficient funds to complete the project, as stated in the Grant Award/Commitment Letter, by submitting the most recent 3 years of audited financial statements.
  - b) For the term of this Grant Agreement, Grantee submits timely Quarterly Progress Reports as required by Paragraph 16, "Submission of Reports."
  - c) Grantee submits all deliverables as specified in Paragraph 16 of this Grant Agreement and in Exhibit A.
  - d) For each project, prior to the commencement of construction or implementation activities, Grantee shall submit the following to the State:

- 1) Final plans and specifications certified by a California Registered Civil Engineer as to compliance for each approved project as listed in Exhibit A of this Grant Agreement.
- 2) Work that is subject to the California Environmental Quality Act (CEQA) and or environmental permitting shall not proceed under this Grant Agreement until the following actions are performed:
  - i. Grantee submits all applicable environmental permits as indicated on the Environmental Information Form to the State,
  - ii. Documents that satisfy the CEQA process are received by the State,
  - iii. State has completed its CEQA compliance review as a Responsible Agency, and
  - iv. Grantee receives written concurrence from the State of Lead Agency's CEQA document(s) and State notice of verification of environmental permit submittal.State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (i.e., construction or implementation activities) for which it is required. Once CEQA documentation has been completed, State will consider the environmental documents and decide whether to continue to fund the project or to require changes, alterations or other mitigation. Grantee must also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact statements, Finding of No Significant Impact, mitigation monitoring programs, and environmental permits as may be required prior to beginning construction/implementation.
- 3) A monitoring plan as required by Paragraph 21, "Project Monitoring Plan Requirements."

7. DISBURSEMENT OF GRANT FUNDS. Following the review of each invoice, State will disburse to Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. Funds will be disbursed by State in response to each approved invoice in accordance with the Exhibit C. Any and all money disbursed to Grantee under this Grant Agreement and any and all interest earned by Grantee on such money shall be used solely to pay Eligible Costs.
8. ELIGIBLE PROJECT COST. Grantee shall apply State funds received only to eligible Project Costs in accordance with applicable provisions of the law and Exhibit C. Eligible project costs include the reasonable costs of studies, engineering, design, land and easement acquisition, legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Work performed after the date of grant award, December 21, 2011, shall be eligible for reimbursement. Reasonable administrative expenses may be included as Project Costs and will depend on the complexity of the project preparation, planning, coordination, construction, acquisitions, implementation, and maintenance. Reimbursable administrative expenses are the necessary costs incidentally but directly related to the project including the portion of overhead and administrative expenses that are directly related to the project included in this Grant Agreement in accordance with the standard accounting practices of the Grantee.

Advanced funds will not be provided. Costs that are not reimbursable with grant funds cannot be counted as cost share. Costs that are not eligible for reimbursement include but are not limited to:

- a) Costs, other than those noted above, incurred prior to the award date of the Grant.
- b) Operation and maintenance costs, including post construction performance and monitoring costs.

- c) Purchase of equipment not an integral part of a project.
  - d) Establishing a reserve fund.
  - e) Purchase of water supply.
  - f) Monitoring and assessment costs for efforts required after project construction is complete.
  - g) Replacement of existing funding sources for ongoing programs.
  - h) Travel and per diem costs.
  - i) Support of existing agency requirements and mandates (e.g. punitive regulatory agency requirements).
  - j) Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies, or land purchased prior to the effective date of the grant award with the State.
  - k) Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after execution of this Grant Agreement, the State agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred, and the purposes for which the debt is incurred are otherwise eligible costs. However, this will only be allowed as Grantee Cost Share (i.e. Funding Match)
  - l) Overhead not directly related to project costs.
9. METHOD OF PAYMENT. After the disbursement requirements in Paragraph 6 "Basic Conditions" are met, State will disburse the whole or portions of the Grant Amount to Grantee, following receipt from Grantee of an invoice for costs incurred, and timely Quarterly Progress Reports as required by Paragraph 16, "Submission of Reports."

Invoices submitted by Grantee shall include the following information:

- a) Costs incurred for work performed in implementing the project during the period identified in the particular invoice.
- b) Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the implementation of a project.
- c) Appropriate receipts and reports for all costs incurred.
- d) Invoices shall be submitted on forms provided by State and shall meet the following format requirements:
  - 1) Invoices must contain the date of the invoice, the time period covered by the invoice, and the total amount due.
  - 2) Invoices must be itemized based on the categories (i.e., tasks) specified in the Exhibit C. The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).
  - 3) Sufficient evidence (i.e., receipts, copies of checks, time sheets) must be provided for all costs included in the invoice.
  - 4) Each invoice shall clearly delineate those costs claimed for reimbursement from the State's grant amount, as depicted in Paragraph 3, "Grant Amount" and those costs that represent Grantee's costs, as applicable, in Paragraph 4, "Grantee Cost Share."
  - 5) Original signature and date (in ink) of Grantee's Project Manager.

Payment will be made no more frequent than monthly, in arrears, upon receipt of an invoice bearing the Grant Agreement number. Submit the original and copy of the invoice form to the following address:

Department of Water Resources  
Kristin Honeycutt  
3500 Industrial Blvd.  
West Sacramento, Ca 95691

10. WITHHOLDING OF GRANT DISBURSEMENT BY STATE. If State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if Grantee does not remedy any such failure to State's satisfaction, State may withhold from Grantee all or any portion of the Grant Amount and take any other action that it deems necessary to protect its interests. State may require the Grantee to immediately repay all or any portion of the disbursed grant amount with interest, consistent with its determination. State may consider Grantee's refusal to repay the requested disbursed grant amount a contract breach subject to the default provisions in Paragraph 12, "Default Provisions."
11. CONTINUING ELIGIBILITY. Grantee must meet the following ongoing requirements to remain eligible to receive State grant funds:
  - a) Timely adoption of an IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
  - b) An urban water supplier that receives grant funds governed by this Grant Agreement shall maintain compliance with the Urban Water Management Planning Act (CWC§10610 et. seq.).
12. DEFAULT PROVISIONS. Grantee will be in default under this Grant Agreement if any of the following occur:
  - a) Breach of this Grant Agreement, or any supplement or amendment to it, or any other agreement between Grantee and State evidencing or securing Grantee's obligations.
  - b) Making any false warranty, representation, or statement with respect to this Grant Agreement.
  - c) Failure to operate or maintain project in accordance with this Grant Agreement.
  - d) Failure to make any remittance required by this Grant Agreement.
  - e) Failure to comply with Labor Compliance Plan (LCP) requirements.
  - f) Failure to meet any of the requirements set forth in Paragraph 11, "Continuing Eligibility."

Should an event of default occur, State may do any or all of the following:

  - g) Declare the Grant be immediately repaid, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default.
  - h) Terminate any obligation to make future payments to Grantee.
  - i) Terminate the Grant Agreement.
  - j) Take any other action that it deems necessary to protect its interests.
13. PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS: Grantee shall be responsible for ensuring any and all permits, licenses, and approvals required for performing their obligations under this Grant Agreement are obtained, and shall comply with CEQA (PRC Section 21000 et seq.) and other applicable federal, State and local laws, rules, and regulations, guidelines, and requirements for each project described in Exhibit A of this Grant Agreement.
14. RELATIONSHIP OF PARTIES. Grantee is solely responsible for design, construction, and operation and maintenance of project within this Grant Agreement. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of grant funds by State and shall not be deemed to relieve or restrict responsibilities of Grantee under this Grant Agreement.
15. GRANTEE REPRESENTATIONS. Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Grant Agreement, including all incorporated documents, and to fulfill all written assurances, declarations, representations, and statements made by

Grantee in the application, documents, amendments, and communications filed in support of its request for The Disaster Preparedness and Flood Prevention Bond Act of 2006 financing.

16. SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proof read for content, numerical accuracy, spelling, and grammar prior to submittal to State. All reports shall be submitted to the State's Project Manager, and shall be submitted in both electronic and hard copy forms. If requested, Grantee shall promptly provide any additional information deemed necessary by State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit E. The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State, of a Project Completion Report for each project listed in Exhibit A is a requirement for the release of any funds retained for such project.
  - Quarterly Progress Reports: Grantee shall submit Quarterly Progress Reports to meet the State's requirement for disbursement of funds. Quarterly Progress Reports shall be sent via e-mail, to the State's Project Manager. Quarterly Progress Reports shall, in part, provide a brief description of the work performed, Grantees activities, milestones achieved, any accomplishments and any problems encountered in the performance of the work under this Grant Agreement during the reporting period. The first Quarterly Progress Report should be submitted to the State no later than three months after the State signs the Agreement with future reports then due on successive three-month increments based on the invoicing schedule and this date.
  - Project Completion Reports: Grantee shall prepare and submit to State a separate Project Completion Report for each project included in Exhibit A. Grantee shall submit a Project Completion Report within ninety (90) calendar days of project completion. Each Project Completion Report shall include, in part, a description of actual work done, any changes or amendments to each project, and a final schedule showing actual progress versus planned progress, copies of any final documents or reports generated or utilized during a project, and how the project will further the goals of the IRWM Plan and identify any changes to the IRWM Plan, as a result of project implementation. The Project Completion Report shall also include, if applicable, certification of final project by a registered civil engineer, consistent with Standard Condition D-15, "Final Inspections and Certification of Registered Civil Engineer." A DWR "Certification of Project Completion" form will be provided by the State.
  - Post-Performance Reports: Grantee shall submit Post-Performance Reports. Post-Performance Reports shall be submitted to State within ninety (90) calendar days after the first operational year of a project has elapsed. This record keeping and reporting process shall be repeated annually for a total of 10 years after the completed project begins operation.
17. PROJECT PERFORMANCE AND ASSURANCES. Grantee agrees to faithfully and expeditiously perform or cause to be performed all project work as described in the final plans and specifications for each project under this Grant Agreement and implement the project in accordance with applicable provisions of the law. In the event State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, Grantee agrees to pay all costs incurred by State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.
18. LABOR COMPLIANCE. Grantee agrees to comply with all applicable California Labor Code requirements, including prevailing wage provisions.

19. OPERATION AND MAINTENANCE OF PROJECT. For the useful life of construction and implementation project and in consideration of the Grant made by State, Grantee agrees to ensure or cause to be performed the commencement and continued operation of the project, and shall ensure or cause the project to be operated in an efficient and economical manner; shall ensure all repairs, renewals, and replacements necessary to the efficient operation of the same are provided; and shall ensure or cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. The State shall not be liable for any cost of such maintenance, management, or operation. Grantee may be excused from operations and maintenance only upon the written approval of the State. For purposes of this Grant Agreement, "useful life" means period during which an asset, property, or activity is expected to be usable for the purpose it was acquired or implemented; "operation costs" include direct costs incurred for material and labor needed for operations, utilities, insurance, and similar expenses, and "maintenance costs" include ordinary repairs and replacements of a recurring nature necessary for capital assets and basic structures and the expenditure of funds necessary to replace or reconstruct capital assets or basic structures. Refusal of Grantee to ensure operation and maintenance of the project in accordance with this provision may, at the option of State, be considered a breach of this Grant Agreement and may be treated as default under Paragraph 12, "Default Provisions."
20. STATEWIDE MONITORING REQUIREMENTS. Grantee shall ensure that all project that include groundwater monitoring requirements are consistent with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 (commencing with Section 10780) of Division 6 of CWC) and, where applicable, that project that affect water quality shall include a monitoring component that allows the integration of data into statewide monitoring efforts, including where applicable, the Surface Water Ambient Monitoring Program carried out by the State Water Resources Control Board.
21. PROJECT MONITORING PLAN REQUIREMENTS. Exhibit A of this Grant Agreement shall contain activities to develop and submit to State a Project Monitoring Plan. Along with the Attachment 6 Project Performance Measures Table requirements outlined on page 19 of the Proposition 1E Round 1 SWFM Proposal Solicitation Package, the Project Monitoring Plan should also include:
- a) Baseline conditions.
  - b) Brief discussion of monitoring systems to be utilized.
  - c) Methodology of monitoring.
  - d) Frequency of monitoring.
  - e) Location of monitoring points.

A Project Monitoring Plan shall be submitted to the State prior to disbursement of grant funds for construction or monitoring activities. See Exhibit F ("Requirements for Data Submittal") for web links and information regarding other State monitoring and data reporting requirements.

22. NOTIFICATION OF STATE. For each project, Grantee shall promptly notify State, in writing, of the following items:
- a) Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to State and State has given written approval for such change. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. See Exhibit G for guidance on Agreement Amendment requirements.
  - b) Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by State's representatives. Grantee shall make such notification at least fourteen (14) calendar days prior to the event.

- c) Completion of work shall include final inspection of project by a Registered Civil Engineer, as determined and required by State, and in accordance with Standard Condition D-15 (Final Inspections and Certification of Registered Civil Engineer). Furthermore, the Grantee shall provide the State the opportunity to participate in the inspection. Grantee shall make such notification at least fourteen (14) calendar days prior to the final inspection.
23. NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means: (i) by delivery in person; (ii) by certified U.S. mail, return receipt requested, postage prepaid; (iii) by "overnight" delivery service; provided that next-business-day delivery is requested by the sender; or (iv) by electronic means. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission. Notices shall be sent to the below addresses. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.
24. PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.
25. PROJECT REPRESENTATIVES. The Project Representatives during the term of this Grant Agreement are as follows:

Department of Water  
Resources  
Paula Landis  
Chief, Division of IRWM  
P.O. Box 942836  
Sacramento CA 94236-0001  
Phone: (916) 651-9220  
e-mail: [plandis@water.ca.gov](mailto:plandis@water.ca.gov)

Marin County Flood Control and Water  
Conservation District  
Bob Beaumont  
Director Department of Public Works  
P.O. Box 4186  
San Rafael, Ca 94913-4186  
Phone: (415)499-6528  
e-mail: [bbeaumont@marincounty.org](mailto:bbeaumont@marincounty.org)

Direct all inquiries to the Project Manager:

Department of Water Resources  
  
Kristin Honeycutt  
Division of Integrated Regional  
Water Management  
3500 Industrial Boulevard  
West Sacramento, Ca 95691  
Phone: (916)376-9626  
e-mail: [khoneycu@water.ca.gov](mailto:khoneycu@water.ca.gov)

Marin County Flood Control and Water  
Conservation District  
Jack Curley  
Marin County  
P.O. Box 4186  
San Rafael, Ca 94913-4186  
Phone: (415)473-3051  
e-mail: [jcurley@marincounty.org](mailto:jcurley@marincounty.org)

Either party may change its Project Representative or Project Manager upon written notice to the other party.

26. STANDARD PROVISIONS. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

Exhibit A – Work Plan

Exhibit B – Schedule

Exhibit C – Budget

Exhibit D – Standard Conditions

Exhibit E – Report Formats and Requirements

Exhibit F – Requirements for Data Submittal

Exhibit G – Guidelines for Grantees

Exhibit H – Grantee Resolution



IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

MARIN COUNTY FLOOD CONTROL AND WATER  
CONSERVATION DISTRICT

Paula J. Landis  
Paula J. Landis, P.E., Chief  
Division of Integrated Regional Water  
Management  
Date 5-8-13

Bob Beaumont  
Bob Beaumont  
Director Department of Public Works  
Date 4/12/13

Approved as to Legal Form and Sufficiency

Spencer Kenner  
for Spencer Kenner, Assistant Chief Counsel  
Office of Chief Counsel  
Date 2 May 2013

**EXHIBIT A**  
**Work Plan**

**Phoenix Lake IRWM Retrofit Overview**

Component Projects	Project Elements	Abstract
<b>Flood Damage Reduction Project</b>	Dam Seismic Upgrade	Stabilization of the dam, including construction of a compacted earthen buttress fill and drain on the downstream face and rows of reinforced concrete displacement piles along the dam crest and upstream face.
	Dam Face Erosion Protection and Crest Raising	Placement of a 3 ft thick rip-rap facing on the upstream face to prevent sloughing during rapid drawdown; placement of 2 ft thick compacted fill over the dam crest to provide added freeboard; stabilization of two landslides to prevent further failure and rapid deposition of sediment into lake during flood detention operations.
	Low-Level Drain Pipe Intake	Installation of two new low level intakes, at el. 140 ft and el. 160 ft, on the low-level drain pipe to enable rapid drawdown and water level control for flood detention and cool water release to Ross Creek.
	Lake Bottom Excavation	Excavation of about 30,000 cubic yards of deposited sediment to restore dead pool for aquatic wildlife refugia and reducing sediment in discharge during full lake drawdown.
<b>Water Supply Project</b>	Spillway Crest Gate	Installation of a 6-ft high pneumatic spillway gate to add 120 acre-feet of storage capacity for flood attenuation (wet season) and water supply (dry season).
	Phoenix Lake to Bon Tempe Lake Transfer Piping	Modifications to delivery system from Phoenix Lake to enable pumping to Bon Tempe Lake thereby providing flexibility and new opportunities to use Phoenix Lake water in the MMWD system.
<b>Water Quality Project</b>	Epilimnetic Circulation Device	Installation of a self-contained solar-powered device that circulates water in the lake epilimnion to reduce algae and improve lake clarity.
	Hypolimnetic Circulation Device	Installation of a self-contained solar-powered device that circulates water in the lake hypolimnion to add oxygen and thereby reduce iron and manganese and enlarge the pool suitable for coldwater fish.
<b>Ecosystem Restoration Project</b>	Low-Level Drain Pipe Intake Control Valve	Installation of small sliding gates on the new low level intakes at el. 140 ft and 160 ft to enable precise control and blending of cool water release to Ross Creek for aquatic habitat restoration.
	Seepage Reduction Liner and Grout Curtain	Installation of a synthetic liner along the downstream side of the dam and a grout curtain along the downstream toe into bedrock.
	Low-Level Outlet	Installation of a concrete aeration chamber adjacent to the existing outlet box to

	Discharge Aeration System	increase oxygen and reduce dissolved iron and manganese.
<b>Recreation and Public Access Project</b>	Bill Williams Creek Arch Culvert Replacement	Removal of a non-functioning culverted stream crossing and replacement with a multi-plate arch culvert to prevent future erosion and sediment delivery at a failing stream crossing and improve emergency and public access.
	Phoenix Lake Watershed Trail Improvements	Work along the reaches of the Phoenix Lake watershed trail includes improving drainage to reduce erosion; trail re-routing to avoid problem and/or sensitive habitat areas; constructing or rebuilding minor structures, such as crib walls, puncheons, and bridges; and installing trail signage to improve user safety and enjoyment.
	Visitor Use Facility Upgrades	Upgrade of visitor use facilities so that visitors are provided with clean bathrooms, park benches, and information kiosks.
	Road-Related Sediment Reduction Improvements	Implementing storm proofing techniques as needed on Bill Williams Road and Filter Plant/Lower Eldridge Grade Road to reduce erosion, protect terrestrial and aquatic habitats, and ensure access and safety is maintained.

## FLOOD DAMAGE REDUCTION PROJECT

The Flood Damage Reduction Project will provide about 460 acre-feet of flood storage capacity for floodwater attenuation, including surcharge storage above the spillway crest. The flood detention operations will require improvements and modifications to the dam, spillway, reservoir and inlet/outlet works. The earthen embankment dam will be structurally strengthened to improve seismic stability at the higher water level, elevation 180 ft; the intake of the inlet/outlet works of the low-level drain pipeline will be modified to enable rapid lake drawdown in advance of a forecasted flood; and, the lake bottom will be excavated to provide an adequate minimum pool for fish and other aquatic wildlife and to prevent entrainment and discharge of sediment when the lake is fully drawn down to el. 140 ft.<sup>1</sup>

The Flood Damage Reduction Project has four elements: (1) dam seismic upgrade element, (2) dam face erosion protection and dam crest raising element, (3) low-level drain pipeline intake element, and (4) lake bottom excavation element.

The dam seismic upgrade element consists of a compacted earthen buttress and drain on the downstream face of the dam and three rows of reinforced concrete displacement piles along both the dam crest and the upstream face of the dam.

The dam face erosion protection and dam crest raising element consists of 3 ft thick of rip-rap facing on the upstream face of the dam and 2 ft of compacted fill over the entire dam crest, which spans 350 ft in length and 22 ft in width. This element also includes stabilization of two landslides that are evident along the northern side of the lake. Stabilization requires retaining wall and drilled pier and grade beam stabilization structures.

The low-level drain pipeline intake modification element consists of installation of a two-level, motor-controlled, gated intake structure connected to the existing low-level intake structure and extending along the side of the lake opposite the dam. The modified two-level gated intake will be designed for frequent operations and will enable rapid drawdown of the lake ahead of a forecasted heavy storm and maintenance of the lake water surface at the el. 160 ft (referred to as "step 1 drawdown") or el. 140 ft level (referred to as "step 2 drawdown"). The gate will be electric motor-controlled.

The lake bottom excavation element consists of excavating the lake bottom in the vicinity of the low-level drain pipeline intake. The area of excavation will cover about 2.5 acres and the volume of excavated sediment will be about 30,000 cubic yards.

### **Task 1: Direct Project Administration**

#### **Task 1.1: Administration**

This task consists of administration of all Flood Damage Reduction Project-related activities that will be performed by FZ9, FZ9 contractors, and FZ9's partner agency, MMWD. Activities will primarily include, but will not be limited to, planning and design work and construction and testing work. FZ9 will be the lead agency under CEQA and will be the contracting agency on all work performed by contractors. MMWD, as owner of the Phoenix Lake property and facilities, will participate in all activities in a "review-and-comment" and "inspect-and-approve" capacity.

Administration will cover work performed by FZ9 and MMWD that is incidental but directly related to the above-described Project-related activities. Administration will also involve Grant Agreement-related administrative work.

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<sup>1</sup> In addition, the spillway crest, currently at el. 174 ft, needs to be raised six feet to el. 180 ft for the added storage and attenuation capacity. However, the added storage and attenuation capacity is an *enhancement* to the flood reduction project; while it is *essential* to the water supply project. For this reason, the element of raising the spillway crest is included in the water supply project described below.

Administration will also cover preparation of a Memorandum of Agreement (MOA) between FZ9 and MMWD concerning cost sharing and joint operation of Phoenix Lake for flood control, water supply, ecosystem restoration, and recreation. It is anticipated that the Coordinated Operations Plan for Phoenix Lake will be incorporated into the MOA. Preparation of the MOA will involve FZ9 and MMWD engineering, management, and legal staff.

Deliverables: *Submission of invoices and other deliverables as required; Memorandum of Agreement<sup>2</sup>*

### **Task 1.2: Labor Compliance Program**

This task consists of providing the required information to the newly instituted Compliance Monitoring Unit (CMU) of the California Department of Industrial Relations (DIR) Division of Labor Standards Enforcement (DLSE). Implementation will involve FZ9 preparing and inserting provisions in all contracts requiring contractors to comply with the requirements of the CMU. Details on the specific role of FZ9 in the CMU will be provided by the DLSE.

Deliverable: *Submission of required information to DLSE CMU.*

### **Task 1.3: Reporting**

This task consists of preparing quarterly and final progress reports for the whole Phoenix Lake IRWM Retrofit.<sup>3</sup> The progress reports will describe all grant-funded activities, expenditures vs. budget, and other information for the reporting period as specified in the Grant Agreement. As detailed in the Schedule, the Project is planned to occur over a 55 month period, from September 1, 2012 to March 31, 2017. Accordingly, it is anticipated that there will be 17 quarterly reports and one final progress report will be prepared.

Deliverable: *Submission of quarterly and final reports as specified in the Grant Agreement.*

## **Task 2: Land Purchase/Easement**

All activities of the Retrofit will be located on property owned by MMWD and augment facilities operated by MMWD. There will be a need for land purchases easements or other form of right-of-way acquisition to allow for construction, and post-construction access, operation, and maintenance of the flood control mechanical components installed in this project. Continued, post-construction monitoring will require an easement and license from the owner.

## **Task 3: Planning/Design/Engineering/Environmental Documentation**

### **Task 3.1: Assessment and Evaluation**

Further assessment and evaluation work is needed in hydrology and hydraulics to verify that the spillway can pass the Probable Maximum Flood (PMF) with adequate residual freeboard as required by DSOD (i.e., the dam crest must be 1.5 ft above the lake water surface at PMF peak). PMF is based on the Probable Maximum Precipitation (PMP) event.

Further assessment and evaluation work in geotechnical engineering will have three main elements: (1) consultation with DWR/DSOD to determine the project-specific field exploratory drilling, testing and geotechnical engineering analyses that will be required; (2) perform the required field exploratory drilling and testing; and (3) perform the required geotechnical engineering analyses.

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<sup>2</sup> Since the MOA primarily addresses joint use of Phoenix Lake for flood control and water supply, it has been included under both the Flood Damage Reduction Project and the Water Supply Project. The cost to prepare the MOA has been split 50/50 between these two projects, as reflected in the Budget.

<sup>3</sup> The cost for reporting has been split across all five component projects comprising the Retrofit according to each project's pro-rata construction cost, as reflected in the Budget.

For purposes of this grant agreement, it is anticipated that the required field exploratory drilling and testing work will include six (6) borings in the dam and two (2) borings in the two landslides and laboratory testing of the boring materials, including moisture density, strength (TXCU/pp), PI, and grain size. It is anticipated that the required geotechnical engineering analyses will include more refined (i.e., more refined than the previously completed analyses) stability and deformation analyses based on the new field data. All work, including field data, testing, and analyses, findings, and conclusions verifying feasibility and viability of the geotechnical aspect of the Project will be documented in a Geotechnical Pre-Design Report.

A Coordinated Operations Plan (COP), establishing the rules and criteria for operating the lake in a manner that achieves the lake's new multi-use benefits will be developed that is mutually acceptable to MMWD and FZ9. Details on the COP are provided in the Water Supply Project tasks discussed below.<sup>4</sup>

Deliverables: *Probable Maximum Flood Analysis Report; Geotechnical Pre-Design Report; Coordinated Operations Plan*

### **Task 3.2: Final Design**

The Flood Damage Reduction Project requires the following work: (1) Low-Level Drain Pipe Intake, which will require civil, structural, mechanical, and electrical design, and (2) Dam Seismic Upgrade, Dam Face Erosion Protection and Dam Crest Raising, Lake Bottom Excavation, which will require geotechnical design.

Design plans for these two engineering groups will be prepared at three stages for review, comment, and approval by FZ9 and MMWD: 60% design, 90% (Pre-final) design, and 100% (Final) design. The 100% (Final) design will include the design package and contract that will be advertised for award for construction. It is anticipated that a single design package and contract, combining all four elements of the Flood Damage Reduction Project, will be advertised and awarded for construction to a single contractor. The design package and contract will also include Ecosystem Restoration Project elements relating to dam modifications and intake modifications since these would logically be designed and constructed in conjunction with the Flood Damage Reduction Project.<sup>5</sup>

Deliverables: *60% design, 90% (Pre-final) design, and 100% (Final) design package*

### **Task 3.3: Environmental Documentation**

The Phoenix Lake IRWM Retrofit will be subject to environmental review under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). It is anticipated FZ9 and the U.S. Army Corps of Engineers will be the lead agencies under CEQA and NEPA, respectively. Given that the five component Projects comprising the Phoenix Lake IRWM Retrofit are linked geographically, functionally and institutionally (i.e., between FZ9 and MMWD) as one project, it is anticipated that the approach to environmental review will be a combined Environmental Impact Report/Environmental Impact Statement (EIR/EIS) or Initial Study/Environmental Assessment (IS/EA). This combined environmental document will analyze the environmental impacts and provides mitigation measures for the whole Phoenix Lake IRWM Retrofit, including the Flood Damage Reduction Project and the other four component Projects.

It is anticipated that environmental review will proceed concurrently with regulatory permitting (see Task 3.4 below).

Deliverables: *Approved and adopted CEQA documentation, and if needed, NEPA documentation*

### **Task 3.4: Permitting**

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<sup>4</sup> Since the COP primarily addresses joint use of Phoenix Lake for flood control and water supply, the cost for the COP has been split 50/50 between these two projects, as reflected in the Budget.

<sup>5</sup> The cost for the Ecosystem Restoration Project design and construction has allocated to that project, as reflected in the Budget.

The Flood Damage Reduction Project will be subject to the regulatory permitting authority of several federal and state agencies. The table below identifies the permits that are expected to be required.

**Approvals and Permits Required for the Phoenix Lake IRWM Retrofit**

Agency	Trigger	Approval	Submittal
US Army Corps of Engineers (USACE)	Discharge of fill within ordinary high water mark in creek, lake, or adjacent wetlands	Section 404/10 Permit (Nationwide Permit or an Individual Permit)	Application
National Marine Fisheries Service (NOAA Fisheries) US Fish and Wildlife Service	Effects on federally listed threatened or endangered species	Biological Opinion through a Section 7 Consultation with USACE	Biological Assessment
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Section 404 Permit through USACE	Section 401 Water Quality Certification through Section 404 Permit with USACE	Application
California Department of Fish and Game (DFG)	Work in waters of the State Effects on federally listed threatened or endangered species	Lake and Streambed Alteration Agreement	CEQA document
State Historic Preservation Officer (SHPO)	Effects on cultural or archeological resources	SHPO review and concurrence of inventory/evaluation report	CEQA/NEPA document
Department of Water Resources/Division of Safety of Dams (DSOD)	Modification of dam, spillway, or low-level drain pipe	Approval of Plans and Specifications for modification	Application
Marin County	Construction, earthwork, work in a watercourse	Grading Permit, Building Permit, Watercourse Permit	Application; CEQA document

It is anticipated that DSOD permitting will proceed concurrently with Final (100%) Design.

It is anticipated that special technical studies will be required to support the applications identified in the table above, including delineations of waters of the U.S. and State; vegetation surveys at affected areas; biological surveys for special-status species; and an instream flow study of aquatic habitat in Ross Creek. These studies will be used to support both the environmental review and permitting processes.

Deliverables: *Permit applications for Army Corps 404, Regional Board 401 Certification, and Fish and Game Stream/Lake Alteration, including requisite supporting technical studies; application for DSOD approval of plans and specifications; application to Marin County for grading/building/watercourse permit*

**Task 4: Construction/Implementation**

**Task 4.1: Construction Contracting**

This task covers activities associated with construction contracting, including advertisement for bids; answering questions from contractors and preparing addendums to the design package during the bidding period; pre-bid contractors meeting; evaluation of bids; and award of contract. FZ9 will carry out the advertisement and award of contract work, and will be assisted by an engineering consultant-contractor in the other work.

Deliverables: Bid advertisement; written answers to questions during bidding; addendums to contract, if/as needed; meeting notes from pre-bid meeting with contractors; documented evaluation of bids and recommendation for award.

**Task 4.2: Construction**

It is anticipated that a single design package and contract, combining all four elements of the Flood Damage Reduction Project (Low-Level Drain Pipe Intake, Dam Seismic Upgrade, Dam Face Erosion Protection and Dam Crest Raising, Lake Bottom Excavation), will be advertised and awarded for construction. Construction is divided into three categories: mobilization and site preparation; project construction; and performance testing and demobilization.

Following construction, further work will be performed on the monitoring system. It is anticipated that this work will be performed by a consulting hydrographer-contractor.

**Task 4.2.1: Mobilization and Site Preparation**

This category of work includes several items as described in the table below.

<b>Mobilization and Site Preparation Work</b>	
Staging area	Establish the on-site work staging area and support facilities (e.g., water tank, electric power)
Stockpile area	Establish stockpile area for temporary storage of excavated material
Mobilization	Mobilize equipment to the site
Erosion Control	Set up erosion control
Access roads	Trim and grade existing access road leading to the staging area; create new access road(s) to the reservoir bottom, as needed
Dewatering and water management	Gravity drain the lake using existing low-level drain pipe; dewater the remaining dead pool using temporary pumps; construct cofferdam(s) to collect tributary and groundwater inflow and maintain dewatered condition during construction using temporary pumps; install sediment controls and discharge pipeline to Ross Creek using Baker Tanks to treat water prior to discharge as required.
Wildlife protection	Set up exclusionary fencing as required by the ECW (see Task 4.2.3 below)
Wildlife relocation	Collect fish and other aquatic wildlife from lake after gravity draining and temporarily store and/or relocate

**Task 4.2.2: Project Construction**

This category of work includes several items as described in the table below.

<b>Project Construction Work</b>	
Excavate Lake Bottom	Excavate lake bottom
Grout curtain*	Install grout curtain along downstream toe of dam into bedrock
Liner*	Embed synthetic liner into downstream side of dam
Filter Fabric	Stabilize and place filter fabric on upstream dam face
Rip-rap facing	Placed 3 ft thick rip-rap on upstream dam face
Piles	Construct auger cast displacement piles in upstream face; 18-in dia, 60-ft deep, 6 rows at 10 ft o.c.
Excavate and stockpile	Excavate and stockpile material downstream face



Drainage blanket	Place and install drainage blanket on downstream dam face
Buttress fill	Place compacted buttress fill, using lake bottom material, on downstream dam face
Stabilize landslides	Construct retaining wall using soldier pile and timber lagging; install drilled pier and grade beam structure; finish site grading and install erosion control
Construct Intake	Install intakes on low-level drain pipe at el. 140 ft and 160 ft
Mechanical	Install slide gates and motor controls on intakes
Emergency Generators	Construct housing for emergency generators; install emergency generators and appurtances
Electrical	Install power lines; hook-up motor-controlled slide gates to power supply sources
Monitoring	Install gages at lake tributaries (2) and lake level gage (1)

\* Ecosystem Restoration project element, but indicated here because installation will occur with other dam modification work.

#### Task 4.2.3: Performance Testing and Demobilization

This category of work includes several items as tabulated below relating to the construction contract.

<b>Performance Testing and Demobilization Work (Construction Contract)</b>	
Performance testing	Test performance of mechanical and electrical systems, including emergency generators, motor-controlled gates, and monitoring components
Demobilization	Demobilize equipment and remove support facilities and temporary hookups from the site
Site restoration	Finish grade disturbed areas; hydroseed and install erosion control; plant other vegetation in disturbed areas as needed
Dewatering and water management	Gravity drain the lake using existing low-level drain pipe; dewater the dead pool using temporary pumps; construct cofferdam(s) to collect tributary and groundwater inflow and maintain dewatered condition during construction using temporary pumps; install sediment controls and discharge pipeline to Ross Creek using Baker Tanks to treat water prior to discharge, if/as needed.
Wildlife Replacement	Collect temporarily stored fish and other aquatic wildlife and replace into lake; supplement with planting of additional hatchery trout

#### Task 4.2.4: Monitoring System Work

This category of work includes several items as described in the table below relating to the monitoring system.

<b>Post-Construction Monitoring System Work</b>	
Monitoring	Develop creek water level vs. discharge rating curves for gages (2) at the creek tributaries to lake
Monitoring	Install temporary flow measurement device at low-level outlet pipe; perform lake drawdown tests to assess lake drawdown capability and rate and to develop lake water level vs. discharge relationship for the new intakes (2)

#### Task 5: Environmental Compliance/Mitigation/Enhancement

It is anticipated that an outcome of environmental review under CEQA and NEPA and regulatory permitting will be various environmental compliance, mitigation, and enhancement measures that will be required pre-, during, and post-construction. Since the environment review has not been initiated, it is impossible at this time to predict exactly what measures will be required but, for purposes of this grant application, the following measures are anticipated.

<b>Environmental Compliance, Mitigation and Enhancement</b>	
Environmental Compliance Workplan	Preparation of a written Environmental Compliance Workplan (ECW) for the Phoenix Lake IRWD Retrofit <sup>6</sup> which will identify special-status species and other sensitive biological resources occurring in the Project area; describe pre-construction biological surveys and avoidance measures (e.g., exclusionary fencing); describe construction avoidance measures (e.g., construction season, exclusionary fencing) and monitoring; prepare a stormwater pollution prevention plan (SWPPP) that describes pre-, during-, and post-construction water quality protection measures and monitoring; describe post-construction restoration and mitigation measures; and describe post-construction mitigation monitoring
Pre-construction biological surveys	Perform pre-construction biological surveys as required in the ECW.
Construction monitoring	Perform continuous, on-site monitoring by an on-site resident biologist during all phases of construction activities to ensure compliance with the ECW; perform stormwater quality monitoring as called for in the SWPPP.
Post-construction restoration and mitigation (in addition to normal construction site restoration required by construction contractor)	Re-create five (5) acres of lake-fringe wetland habitat.
Initial post-construction monitoring (initial verification monitoring only – not long term)	Perform initial post-construction monitoring to verify and document initial installation of restoration and mitigation as required in the ECW.

It is anticipated that this work will be performed by environmental consultant-contractor with review and oversight by FZ9 staff. MMWD staff will also provide review-and-comment.

Deliverables: *Environmental Compliance Workplan Report; SWPPP; pre-construction biological survey report; construction monitoring reports; initial post-construction monitoring (initial verification) report.*

#### **Task 6: Construction Administration**

This task covers activities associated with administering and managing construction of the Project. Specifically this task includes collecting, reviewing, and filing all documentation, bonding, and certifications required from the contractor before work can begin; holding a pre-construction meeting with the contractor; field-inspecting the work of the contractor, including review of required materials certifications and earthwork testing; review of contractors submittals, including shop drawings; preparation of change orders; review of contractors progress invoices and recommendations for payment of progress invoices; inspection of performance testing; review of contractors final invoice and recommendation for payment.

FZ9 will carry out collecting, reviewing, and filing all documentation, insurance and bonding, and certifications as required from the contractor; and payment of invoices. FZ9 anticipates that the other work described above will be performed by an engineering consultant-contractor with review and oversight by FZ9 staff. MMWD staff will also perform review-and-comment and inspection-and-approval functions during construction.

Deliverables: *Meeting notes on pre-construction meeting; field-inspection reports; documented materials certifications and earthwork testing results; review/approved shop drawings, if/as needed; change orders, if/as needed; documented review and recommendations for progress and final payments to contractors.*

<sup>6</sup> It is anticipated that the ECW will cover the whole Phoenix Lake IRWM Retrofit. The cost for the ECW has been split according to each project's pro-rata construction cost, as reflected in the Budget.

## **Task 7: Construction/Implementation Contingency**

A contingency of 25% has been assigned to Construction/Implementation Contingency for the Flood Damage Reduction Project because it is currently at the Concept (30%) Design stage and no environmental review or permitting work, such as informal consultations with resource agencies, have been completed. The contingency is intended to cover unforeseen construction costs that might arise as the projects progress through further stages of design, environmental review, and permitting and any unlisted items not detailed in the construction cost estimate.

## **WATER SUPPLY PROJECT**

The Water Supply Project will increase the yield of Phoenix Lake and thereby provide more reliability and flexibility to MMWD's water supply.

Water supply operations require modification of the spillway raising the crest to its pre-1985 elevation, 180 ft. In addition, modifications to the piping system from Phoenix Lake to Bon Tempe Lake will be needed to create separate potable and lake water transfer systems for more flexible utilization of the increased yield of Phoenix Lake water. Accordingly, the Water Supply Project has two elements: (1) spillway gate; and (2) Phoenix Lake to Bon Tempe Lake transfer piping.

The spillway gate element consists of installing a gate within the 14-ft wide by 6 ft high "notch" of the existing concrete spillway. The spillway gate will raise the spillway crest by six feet and thereby enable capture and active storage of up to an additional 120 acre-feet of runoff from the MMWD watershed.

Although the descriptions of some of the tasks that follow are similar to the Flood Damage Reduction Project, the level of effort to complete the tasks as well as the cost, as reflected in the Budget, will be substantially less.

FZ9 anticipates awarding a single, separate contract to an engineering construction contractor to furnish and install the spillway gate.

### **Task 1: Direct Project Administration**

#### **Task 1.1: Administration**

Same as Task 1.1 in the Flood Damage Reduction Project, but for all Water Supply Project-related activities.

Deliverables: *Submission of invoices and other deliverables as required; Memorandum of Agreement<sup>7</sup>*

#### **Task 1.2: Labor Compliance Program**

Same as Task 1.2 in the Flood Damage Reduction Project.

Deliverable: *Submission of required information to DLSE CMU*

#### **Task 1.3: Reporting**

Same as Task 1.3 in the Flood Damage Reduction Project.<sup>8</sup>

Deliverable: *Submission of quarterly and final reports as specified in the Grant Agreement*

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<sup>7</sup> Since the MOA primarily addresses joint use of Phoenix Lake for flood control and water supply, it has been included under both the Flood Damage Reduction Project and the Water Supply Project. The cost to prepare the MOA has been split 50/50 between these two projects, as reflected in the Budget.

<sup>8</sup> The cost for reporting has been split across all five component projects comprising the Retrofit according to each project's pro-rata construction cost, as reflected in the Budget.

## **Task 2: Land Purchase/Easement**

Same as Task 2 in the Flood Damage Reduction Project.

## **Task 3: Planning/Design/Engineering/Environmental Documentation**

### **Task 3.1: Assessment and Evaluation**

In order to more thoroughly assess and evaluate the long term yield of the Water Supply Project, further long-term hydrologic analysis covering shortage years is needed. The Phoenix Lake operations model previously developed will be used again for this further analysis.

A Coordinated Operations Plan (COP) will be developed that is mutually acceptable to MMWD and FZ9, establishing the rules and criteria for operating the lake in a manner that achieves the lake's new multi-use benefits. The operating rules and criteria will govern lake levels, withdrawals for water supply, and operation of the spillway gate. The COP will also describe instream flow releases for ecosystem restoration in Ross Creek below the dam and lake levels for public recreational uses of the lake. The Phoenix Lake operations model and findings of the instream flow study of Ross Creek and lower Corte Madera Creek (see section the Ecosystem Restoration Project Task 3.4: Permitting) will be used in developing the COP. It is anticipated that the COP will be incorporated into the MOA.<sup>9</sup>

It is anticipated that the above-described work will be performed by an engineering consultant-contractor with review and oversight by FZ9 staff. MMWD staff will also provide review-and-comment services.

*Deliverables: Report on Long-Term Hydrologic Analysis of Re-operation of Phoenix Lake for Flood Detention and Water Supply; Coordinated Operations Plan*

### **Task 3.2: Final Design**

The Water Supply Project will require further work to complete the Final Design of the spillway gate installation and the Phoenix Lake to Bon Tempe Lake transfer piping. This further work will require civil, structural, mechanical, and electrical design.

Design plans for the spillway gate installation and the transfer piping will be prepared at three stages for review, comment, and approval by FZ9 and MMWD: 60% design, 90% (Pre-final) design, and 100% (Final) design. The 100% (Final) design will include the design package and contract that will be advertised for award for construction.

*Deliverables: 60% design, 90% (Pre-final) design, and 100% (Final) design package, two of each*

### **Task 3.3: Environmental Documentation**

Same as Task 3.3 in the Flood Damage Reduction Project.

*Deliverables: Approved and adopted combined CEQA documentation, and if needed, NEPA documentation<sup>10</sup>*

### **Task 3.4: Permitting**

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<sup>9</sup> Since the COP primarily addresses joint use of Phoenix Lake for flood control and water supply, it has been included under both the Flood Damage Reduction Project and the Water Supply Project. The cost to prepare the COP has been split 50/50 between these two projects, as reflected in the Budget.

<sup>10</sup> Since it is anticipated that the approach to environmental review will be a combined CEQA/NEPA document covering the whole Phoenix Lake IRWM Retrofit, Task 3.3, Environmental Documentation is the same for all five component projects of the Retrofit. The cost for Task 3.3 has been split according to each projects pro-rata construction cost, as reflected in the Budget.

The Water Supply Project will be subject to the regulatory permitting authority of state and local agencies. The table below identifies the permits that are expected to be required.

**Approvals and Permits Required for the Phoenix Lake IRWM Retrofit**

Agency	Trigger	Approval	Submittal
Department of Water Resources/Division of Safety of Dams (DSOD)	Modification of dam, spillway, or low-level drain pipe	Approval of Plans and Specifications for modification	Application
Marin County	Construction	Building Permit	Application; CEQA document

It is anticipated that the above-described permitting will proceed concurrently with Final (100%) Design (see Task 3.2: Final Design above).

Deliverables: Applications for DSOD approval of plans and specifications for spillway gate; application to Marin County for building permit

**Task 4: Construction/Implementation**

**Task 4.1: Construction Contracting**

Same as Task 4.1 in the Flood Damage Reduction Project.

Deliverables: Bid advertisement; written answers to questions during bidding; addendums to contract, if/as needed; meeting notes from pre-bid meeting with contractors; documented evaluation of bids and recommendation for award

**Task 4.2: Construction**

It is anticipated that two separate design packages and contracts will be advertised and awarded to two separate contractors for construction of the spillway gate and transfer piping. Construction is divided into three categories: mobilization and site preparation; project construction; and performance testing and demobilization.

**Task 4.2.1: Mobilization and Site Preparation**

This category of work includes several items as described in the table below.

Mobilization and Site Preparation Work	
Staging area	Establish the on-site work staging area and support facilities (e.g., electric power)
Mobilization	Mobilize equipment to the site
Wildlife protection	Set up exclusionary fencing as required by the ECW

**Task 4.2.2: Project Construction**

This category of work includes several items as described in the table below.

Project Construction Work	
Mechanical	Furnish and install spillway gate
Equipment House	Construct housing for spillway gate inflation blower and controls
Electrical (spillway gate)	Install power lines; hook-up spillway gate controls to power supply sources

#### Task 4.2.3: Performance Testing and Demobilization

This category of work includes several items as tabulated below relating to the construction contract.

Performance Testing and Demobilization Work (Construction Contracts)	
Performance testing	Test operations of spillway gate and electrical systems, including spillway gate control and monitoring components
Performance testing	Test operations of the transfer piping
Demobilization	Demobilize equipment and remove support facilities and temporary hookups from the site
Site restoration	Clean-up site as needed

#### Task 4.2.4: Monitoring System Work

No post-construction monitoring system work is anticipated.

#### Task 5: Environmental Compliance/Mitigation/Enhancement

Since the Water Supply Project footprint will be limited to the existing concrete spillway and upland staging and equipment house areas, no environmental compliance, mitigation, or enhancement is anticipated.

#### Task 6: Construction Administration

Same as Task 6 in the Flood Damage Reduction Project.

*Deliverables:* Meeting notes on pre-construction meeting; field-inspection reports; documented materials certifications and earthwork testing results; review/approved shop drawings, if/as needed; change orders, if/as needed; documented review and recommendations for progress and final payments to contractors.

#### Task 7: Construction/Implementation Contingency

A contingency of 25% has been assigned to Construction/Implementation Contingency for the Water Supply Project because it is currently at the Concept (30%) Design stage and no environmental review or permitting work, such as informal consultations with resource agencies, have been completed. The contingency is intended to cover unforeseen construction costs that might arise as the projects progress through further stages of design, environmental review, and permitting and any unlisted items not detailed in the construction cost estimate.

### **WATER QUALITY PROJECT**

The Water Quality Project will improve the quality of water in Phoenix Lake for municipal water supply and public recreation. The Water Quality Project has two elements that address the water quality issues in the lake: (1) epilimnetic circulation device and (2) hypolimnetic circulation device.

The epilimnetic circulation device is designed to reduce the growth of floating algae and thereby improve water quality, lake clarity, and reduce treatment costs, particularly during the summertime when lake supply is most needed. The hypolimnetic circulation device aims to oxygenate the hypolimnion and prevent dissolution of sediment-bound metals which can contribute to taste and odor problems in drinking water.

Although the descriptions of some of the tasks that follow are similar to the Flood Damage Reduction Project, the level of effort to complete the tasks as well as the cost, as reflected in the Budget, will be substantially less.

FZ9 anticipates awarding a single, separate contract to an equipment vendor to furnish and install the two circulation devices in the lake.

### **Task 1: Direct Project Administration Costs**

#### **Task 1.1: Administration**

This task consists of administration of all Water Quality Project-related activities that will be performed by FZ9, FZ9 contractors, and FZ9's partner agency, MMWD. Activities will primarily include, but will not be limited to, planning and design work and construction and testing work. FZ9 will be the lead agency under CEQA and will be the contracting agency on all work performed by contractors. MMWD, as owner of the Phoenix Lake property and existing facilities, will participate in all activities in a "review-and-comment" and "inspect-and-approve" capacity.

Administration will cover work performed by FZ9 and MMWD that is incidental but directly related to the above-described Project-related activities. Administration will also involve Grant Agreement-related administrative work.

*Deliverables: Submission of invoices and other deliverables as required*

#### **Task 1.2: Labor Compliance Program**

Same as Task 1.2 in the Flood Damage Reduction Project.

*Deliverable: Submission of required information to DLSE CMU*

#### **Task 1.3: Reporting**

Same as Task 1.3 in the Flood Damage Reduction Project.<sup>11</sup>

*Deliverable: Submission of quarterly and final reports as specified in the Grant Agreement*

### **Task 2: Land Purchase/Easement**

Same as Task 2 in the Flood Damage Reduction Project.

### **Task 3: Planning/Design/Engineering/Environmental Documentation**

#### **Task 3.1: Assessment and Evaluation**

The Concept (30%) Design Memorandum has adequately verified the engineering feasibility and viability of the two circulation devices; therefore, no further engineering assessment and evaluation work is needed. However, further assessment and evaluation of baseline (existing, or pre-construction) water quality conditions in the lake is needed.

Further assessment and evaluation of existing water quality conditions will include pre-construction water quality monitoring summarized in the table below.

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<sup>11</sup> The cost for reporting has been split across all five component projects comprising the Retrofit according to each project's pro-rata construction cost, as reflected in the Budget.

**Monitoring Plan for Baseline (Existing) Conditions**

	Description
<b>What</b>	<ul style="list-style-type: none"> <li>Water quality (Secchi depth and vertical profiles of Chlorophyll-a, dissolved oxygen, and iron and manganese)</li> <li>Water temperature (vertical profiles of water temperature)</li> </ul>
<b>Why</b>	<ul style="list-style-type: none"> <li>Provide data to establish baseline conditions for evaluating project performance</li> </ul>
<b>When</b>	<ul style="list-style-type: none"> <li>Monthly sampling of water quality in the months from April through October:               <ul style="list-style-type: none"> <li>Pre-construction</li> </ul> </li> <li>Continuous monitoring of water temperature in the months from April through October:               <ul style="list-style-type: none"> <li>Pre-construction</li> </ul> </li> </ul>
<b>Where</b>	<ul style="list-style-type: none"> <li>Near the dam and near the proposed circulation devices</li> </ul>
<b>Who</b>	<ul style="list-style-type: none"> <li>FZ9 contractor</li> </ul>

Deliverables: Report on Baseline Water Quality Conditions in Phoenix Lake

**Task 3.2: Final Design**

The Water Quality Project will require further work to complete the installations of the circulation devices, including final determination of the depth settings of the devices and design of the tethering systems. Final Design work for the Water Quality Project will be limited to preparation of the specification package and contract that will be advertised for award for furnishing and installing the two devices. It is anticipated that a single specification package and contract will be advertised and awarded to a single equipment vendor-contractor.

**Task 3.3: Environmental Documentation**

Same as Task 3.3 in the Flood Damage Reduction Project.

Deliverables: Approved and adopted CEQA documentation, and if needed, NEPA documentation<sup>12</sup>

**Task 3.4: Permitting**

It is not anticipated that the Water Quality Project will be subject to regulatory permitting authority. Therefore, no work is anticipated under this task.

**Task 4: Construction/Implementation**

**Task 4.1: Construction Contracting**

Same as Task 4.1 in the Flood Damage Reduction Project.

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<sup>12</sup> Since it is anticipated that the approach to environmental review will be a combined CEQA/NEPA document covering the whole Phoenix Lake IRWM Retrofit, Task 3.3, Environmental Documentation is the same for all five component projects of the Retrofit. The cost for Task 3.3 has been split according to each projects pro-rata construction cost, as reflected in the Budget.



Deliverables: Bid advertisement; written answers to questions during bidding; addendums to contract, if/as needed; meeting notes from pre-bid meeting with contractors; documented evaluation of bids and recommendation for award.

#### **Task 4.2: Construction**

It is anticipated that a single specification package and contract to furnish and install the two circulation devices will be advertised and awarded for construction. Construction is divided into two categories: project construction and performance testing.

##### **Task 4.2.1: Mobilization and Site Preparation**

There is no work planned for this category.

##### **Task 4.2.2: Project Construction**

This category of work includes two items as described in the table below.

<b>Project Construction Work</b>	
Mechanical	Furnish and install two circulation devices in the lake
Tethering System	Furnish and install tethering systems for two circulation devices

##### **Task 4.2.3: Performance Testing and Demobilization**

This category of work includes one item as tabulated below relating to the construction contract.

<b>Performance Testing and Demobilization Work (Construction Contract)</b>	
Performance testing	Test operation of the two circulation devices

##### **Task 4.2.4: Monitoring System Work**

No post-construction monitoring system work is anticipated.

#### **Task 5: Environmental Compliance/Mitigation/Enhancement**

No environmental compliance, mitigation, or enhancement is anticipated for this project.

#### **Task 6: Construction Administration**

Same as Task 6 in the Flood Damage Reduction Project.

Deliverables: Meeting notes on pre-construction meeting; field-inspection reports; review/approved shop drawings, if/as needed; change orders, if/as needed; documented review and recommendations for progress and final payments to vendor-contractor.

#### **Task 7: Construction/Implementation Contingency**

A contingency of 25% has been assigned to Construction/Implementation Contingency for the Water Quality Project because it is currently at the Concept (30%) Design stage and no environmental review or permitting work, such as informal consultations with resource agencies, have been completed. The contingency is intended to cover unforeseen construction costs that might arise as the projects progress through further stages of design, environmental review, and permitting and any unlisted items not detailed in the construction cost estimate.

## ECOSYSTEM RESTORATION PROJECT

The Ecosystem Restoration Project will improve aquatic habitat conditions below the dam in Ross Creek and lower Corte Madera Creek by cooling water temperatures and also reducing concentrations of soluble iron and manganese in these creeks during the dry season if/as required by regulatory permitting authorities. Cooling of water temperatures requires augmenting the design of the Flood Damage Reduction Project's low-level drain pipeline intake to allow precise control and blending of low flow release from the 140 ft and 160 ft level intakes.

The Ecosystem Restoration Project has three elements that address this need: (1) low-flow control gates at the elevation 140 ft and 160 ft level intakes; (2) an aeration system at the low-level outlet; and, (3) a seepage reduction system consisting of a synthetic liner embedded into the downstream side of the dam and a grout curtain along the downstream toe extending into bedrock to reduce or eliminate seepage through/beneath the dam and uncontrolled discharge of water containing low dissolved oxygen, high iron and manganese to Ross Creek.

The low-level drain pipe intake/low-flow control gate element consists of installing additional gates at the elevation 140 ft. and 160 ft. level intakes. These gates will be small sliding gates which can be adjusted over a range of levels to allow for precise control of low flow releases to Ross Creek over a range of low, summer base flows, preliminarily estimated to be 1 to 5 cfs. The gates will allow precise mixing of water from the 140 ft and 160 ft lake levels to efficiently utilize the pool of cool water in the hypolimnion in achieving the target blended water temperature in the discharge water. The gates will be electric motor-controlled. Released flow will be measured at the outlet of the low-level drain pipe where it overflows from a concrete vault below the dam. Water level and water temperature sensors will be placed in the bottom of the vault and a v-notch weir will be cut into one of the vault sides for measurement of outflow. A water level vs. discharge rating curve will be developed for the v-notch weir and a recorder installed nearby to enable continuous measurement and recording of low-flow discharges and temperatures.

The aeration system element consists of installing a concrete aeration vault adjoining the existing vault at the low-level pipe outlet. Overflow from the outlet vault will enter the aeration vault where the water will be aerated by air diffusers placed just above the vault bottom. The diffusers will be fed by air produced and conveyed by pipeline from an air compressor located at the rubber dam equipment house.

The seepage reduction system consists of a synthetic liner embedded into the downstream side of the dam. A grout curtain would be installed along the downstream toe of the dam and extend into bedrock.

Instream flow release of cooler water from the lake hypolimnion containing reduced concentrations of soluble iron and manganese will improve downstream water quality and aquatic habitat for target anadromous salmonids and other coldwater species.

Although the descriptions of some of the tasks that follow are similar to the Flood Damage Reduction Project, the level of effort to complete the tasks as well as the cost, as reflected in the Budget, will be substantially less.

FZ9 anticipates incorporating the low-flow control gates, the dam face liner and the aeration device in the Final (100%) design package and contract that is awarded for Flood Damage Reduction Project. The low-flow control gates will be physically attached to and made part of the new intake at elevations 140 ft and 160 ft; similarly, the aeration system will be connected with the existing outlet vault; and the liner and grout curtain will be installed at the same time as other dam modifications that will be constructed as part of the Flood Damage Reduction Project. It is logical to have all these features installed at the same time and by the same contractor responsible for the Flood Damage Reduction Project work. Nonetheless, these activities and the associated costs are allocated to the Ecosystem Restoration Projects, as indicated in the Budget.

### Task 1: Direct Project Administration

#### Task 1.1: Administration

Same as Task 1.1 in the Water Quality Project, but for all Ecosystem Restoration Project-related activities.

Deliverables: *Submission of invoices and other deliverables as required*

### **Task 1.2: Labor Compliance Program**

Same as Task 1.2 in the Flood Damage Reduction Project.

Deliverable: *Submission of required information to DLSE CMU*

### **Task 1.3: Reporting**

Same as Task 1.3 in the Flood Damage Reduction Project<sup>13</sup>

Deliverable: *Submission of quarterly and final reports as specified in the Grant Agreement.*

## **Task 2: Land Purchase/Easement**

Same as Task 2 in the Flood Damage Reduction Project.

## **Task 3: Planning/Design/Engineering/Environmental Documentation**

### **Task 3.1: Assessment and Evaluation**

The Concept (30%) Design Memorandum has adequately verified the engineering feasibility and viability of the low-flow control gates; therefore, no further engineering assessment and evaluation work is needed. However, further assessment and evaluation is needed of baseline (existing, or pre-construction) water quality conditions below Phoenix Lake in Ross Creek and Corte Madera Creek. This will aid in identifying the important sources of concentrations of low dissolved oxygen and high iron and manganese.

Deliverables: Report on Baseline Water Quality Conditions below Phoenix Lake in Ross Creek and Corte Madera Creek

### **Task 3.2: Final Design**

The Ecosystem Restoration Project will require further work to complete Final Design of the synthetic liner/grout curtain, low-flow control gates installation, and low-level outlet discharge aeration system. This further work will require civil, mechanical, and electrical design.

It is anticipated that the design of low-flow control gates, the aeration device, and the synthetic liner/grout curtain will be incorporated into the overall design of the low-level drain pipe intake modifications and dam seismic upgrade, which are part of the Flood Damage Reduction Project. As such, these features will be included in the Final (100%) design package and contract that is awarded for the Flood Damage Reduction Project. Nonetheless, the design of these features as described in this section and the associated costs are allocated to the Ecosystem Restoration Projects, as indicated in the Budget.

Design plans for the low-flow control gates, the aeration device, and the synthetic liner/grout curtain will be included in the design submittals for the Flood Damage Reduction Project at three stages for review, comment, and approval by FZ9 and MMWD: 60% design, 90% (Pre-final) design, and 100% (Final) design.

Deliverables: *60% design, 90% (Pre-final) design, and 100% (Final) design package*

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<sup>13</sup> The cost for reporting has been split across all five component projects comprising the Retrofit according to each project's pro-rata construction cost, as reflected in the Budget.

**Task 3.3: Environmental Documentation**

Same as Task 3.3 in the Flood Damage Reduction Project.

Deliverables: *Approved and adopted CEQA documentation, and if needed, NEPA documentation*<sup>14</sup>

**Task 3.4: Permitting**

The Ecosystem Restoration Project will be subject to the regulatory permitting authority of state and local agencies. The table below identifies the permits that are expected to be required.

**Approvals and Permits Required for the Ecosystem Restoration Project**

Agency	Trigger	Approval	Submittal
National Marine Fisheries Service (NOAA Fisheries) US Fish and Wildlife Service	Effects on federally listed threatened or endangered species	Biological Opinion through a Section 7 Consultation with USACE	Biological Assessment
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Section 404 Permit through USACE	Section 401 Water Quality Certification through Section 404 Permit with USACE	Application
California Department of Fish and Game (DFG)	Effects on federally listed threatened or endangered species	Lake and Streambed Alteration Agreement	CEQA document
Department of Water Resources/Division of Safety of Dams (DSOD)	Modification of dam, spillway, or low-level drain pipe	Approval of Plans and Specifications for modification	Application
Marin County	Construction	Building Permit	Application; CEQA document

It is anticipated that environmental regulatory permitting for the Ecosystem Restoration Project will be integrated with the permitting for the Flood Damage Reduction Project. It is anticipated that an instream flow study of aquatic habitat in Ross Creek and lower Corte Madera Creek will be needed to support preparation of the Biological Assessment and Section 7 Consultation process. This study will be used to support both the environmental review and permitting processes for the two projects.

It is anticipated that DSOD permitting will proceed concurrently with Final (100%) Design.

Deliverables: *Biological Assessment; Permit applications for Regional Board 401 Certification, and Fish and Game Stream/Lake Alteration, including requisite supporting instream flow study; application for DSOD approval of plans and specifications; application to Marin County for building permit*

**Task 4: Construction/Implementation**

**Task 4.1: Construction Contracting**

<sup>14</sup> Since it is anticipated that the approach to environmental review will be a combined CEQA/NEPA document covering the whole Phoenix Lake IRWM Retrofit, Task 3.3, Environmental Documentation is the same for all five component projects of the Retrofit. The cost for Task 3.3 has been split according to each projects pro-rata construction cost, as reflected in the Budget.

Same as Task 4.1 in the Flood Damage Reduction Project.

Deliverables: Bid advertisement; written answers to questions during bidding; addendums to contract, if/as needed; meeting notes from pre-bid meeting with contractors; documented evaluation of bids and recommendation for award.

**Task 4.2: Construction**

FZ9 anticipates incorporating the design of the low-flow control gates and the synthetic liner/grout curtain into the overall design of the low-level drain pipe intake modifications and dam seismic upgrade, which are part of the Flood Damage Reduction Project. As such, these features will be included in the Final (100%) design package and contract that is awarded for the Flood Damage Reduction Project. The construction of these features is described in this section and the associated costs are allocated to the Ecosystem Restoration Projects, as indicated in the Budget. The design of the aeration system will be included in a separate design package. The construction will be done under a separate construction contract. Construction is divided into two categories: project construction and performance testing.

**Task 4.2.1: Mobilization and Site Preparation**

There is no work in this category.

**Task 4.2.2: Project Construction**

This category of work includes several items as described in the table below.

Project Construction Work	
Mechanical	Furnish and install low-flow slide gates at the 140 ft and 160 ft level intakes; Furnish and install aeration system at low-level outlet discharge vault
Civil	Install synthetic liner and grout curtain
Electrical	Furnish and hook-up motor-control for two low-flow slide gates to power supply sources
Monitoring	Furnish and install stream flow gages at lake tributaries (2) and lake level gage (1); water level sensor (1), temperature sensor (1), and dissolved oxygen sensor (1) at low-level outlet discharge vault; streamflow gage at mouth of Ross Creek(1); temperature sensors along Ross Creek (4) and Corte Madera Creek (2)

**Task 4.2.3: Performance Testing and Demobilization**

This category of work includes several items as tabulated below relating to the construction contract.

Performance Testing and Demobilization Work (Construction Contract)	
Performance testing	Test operation of low-flow control gates and monitoring components
Performance testing	Test operation of aeration system

**Task 4.2.4: Monitoring System Work**

This category of work includes several items as described in the table below relating to the monitoring system.

Post-Construction Monitoring System Work	
Monitoring	Develop creek water level vs. discharge rating curves for streamflow gages (3); develop water level vs. discharge rating curve at low-level outlet discharge vault (1)

### **Task 5: Environmental Compliance/Mitigation/Enhancement**

No environmental compliance, mitigation, or enhancement associated with the low-flow control gate is anticipated.

### **Task 6: Construction Administration**

This task covers activities associated with administering and managing construction of the Project. Specifically this task includes collecting, reviewing, and filing all documentation, bonding, and certifications required from the contractor before work can begin; holding a pre-construction meeting with the contractor; field-inspecting the work of the contractor, including review of required materials certifications and earthwork testing; review of contractors submittals, including shop drawings; preparation of change orders; review of contractors progress invoices and recommendations for payment of progress invoices; inspection of performance testing; review of contractors final invoice and recommendation for payment.

FZ9 will carry out collecting, reviewing, and filing all documentation, insurance and bonding, and certifications as required from the contractor; and payment of invoices. FZ9 anticipates that the other work described above will be performed by an engineering consultant-contractor with review and oversight by FZ9 staff. MMWD staff will also perform review-and-comment and inspection-and-approval functions during construction.

*Deliverables:* Meeting notes on pre-construction meeting; field-inspection reports; documented materials certifications and earthwork testing results; review/approved shop drawings, if/as needed; change orders, if/as needed; documented review and recommendations for progress and final payments to contractors.

### **Task 7: Construction/Implementation Contingency**

A contingency of 25% has been assigned to Construction/Implementation Contingency for the Ecosystem Restoration Project because it is currently at the Concept (30%) Design stage and no environmental review or permitting work, such as informal consultations with resource agencies, have been completed. The contingency is intended to cover unforeseen construction costs that might arise as the projects progress through further stages of design, environmental review, and permitting and any unlisted items not detailed in the construction cost estimate.

## **RECREATION AND PUBLIC ACCESS PROJECT**

The Recreation and Public Access Project will enhance public access, safety, and reduce erosion and the delivery of sediment to Phoenix Lake. This will require improvements to roads and trails, as well as culverts where these features cross over tributary drainages of Phoenix Lake.

The Recreation and Public Access Project has four elements that address public access, safety, and reduce erosion and the delivery of sediment to Phoenix Lake: (1) Bill Williams Creek arch culvert replacement; (2) Phoenix Lake Watershed trail improvements; (3) visitor use facility upgrades; and, (4) road-related sediment reduction improvements.

### **Task 1: Direct Project Administration**

#### **Task 1.1: Administration**

Same as Task 1.1 in the Water Quality Project, but for all Recreation and Public Access Project-related activities.

*Deliverables:* Submission of invoices and other deliverables as required

#### **Task 1.2: Labor Compliance Program**

Same as Task 1.2 in the Flood Damage Reduction Project.

Deliverable: Submission of required information to DLSE CMU

**Task 1.3: Reporting**

Same as Task 1.3 in the Flood Damage Reduction Project.<sup>15</sup>

Deliverable: Submission of quarterly and final reports as specified in the Grant Agreement

**Task 2: Land Purchase/Easement**

Same as Task 2 in the Flood Damage Reduction Project.

**Task 3: Planning/Design/Engineering/Environmental Documentation**

**Task 3.1: Assessment and Evaluation**

The completed work has adequately assessed and evaluated the Recreation and Public Access Project and verified its feasibility and viability; therefore, no further assessment and evaluation work is needed.

**Task 3.2: Final Design**

The Recreation and Public Access Project will require further work to complete Final Design; this further work is divided into two groups based on the four elements of the Project: (1) Bill Williams Creek Culvert Replacement; Phoenix Lake Watershed Trail Improvements; and Road-Related Sediment Reduction Projects, which will require civil, geotechnical, and erosion-control design, and (2) Visitor Use Facility Upgrades, which will require civil design.

Design plans for these two engineering groups will be prepared at three stages for review, comment, and approval by FZ9 and MMWD: 60% design, 90% (Pre-final) design, and 100% (Final) design. The 100% (Final) design will include the design package and contract that will be advertised for award for construction.

Deliverables: 60% design, 90% (Pre-final) design, and 100% (Final) design package, two of each

**Task 3.3: Environmental Documentation**

Same as Task 3.3 in the Flood Damage Reduction Project.

Deliverables: Approved and adopted combined CEQA/NEPA documentation

**Task 3.4: Permitting**

The Recreation and Public Access Project will be subject to the regulatory permitting authority of several federal and state agencies. The table below identifies the permits that are expected to be required.

**Approvals and Permits Required for the Phoenix Lake IRWM Retrofit**

Agency	Trigger	Approval	Submittal
US Army Corps of Engineers (USACE)	Discharge of fill within ordinary high water mark in creek, lake, or adjacent wetlands	Section 404/10 Permit (Nationwide Permit or an Individual Permit)	Application

<sup>15</sup> The cost for reporting has been split across all five component projects comprising the Retrofit according to each project's pro-rata construction cost, as reflected in the Budget.

National Marine Fisheries Service (NOAA Fisheries) US Fish and Wildlife Service	Effects on federally listed threatened or endangered species	Biological Opinion(s) through a Section 7 Consultation with USACE	Biological Assessment(s)
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Section 404 Permit through USACE	Section 401 Water Quality Certification through Section 404 Permit with USACE	Application
California Department of Fish and Game (DFG)	Discharge of fill within waters of the State Effects on federally listed threatened or endangered species	Lake and Streambed Alteration Agreement	CEQA document
State Historic Preservation Officer (SHPO)		SHPO review and concurrence of inventory/evaluation report	CEQA/NEPA document
Marin County	Construction, earthwork, work in creeks	Grading Permit, Building Permit, Watercourse Permit	Application(s); CEQA document

It is anticipated that special technical studies will be required to support the applications identified in the table above, including delineations of waters of the U.S. and State; vegetation surveys at affected areas; and biological surveys for special-status species. These studies will be used to support both the environmental review and permitting processes.

*Deliverables:* Permit applications for Army Corps 404, Regional Board 401 Certification, and Fish and Game Stream/Lake Alteration, including requisite supporting technical studies; applications to Marin County for grading/building permit and watercourse permit

**Task 4: Construction/Implementation**

**Task 4.1: Construction Contracting**

Same as Task 4.1 in the Flood Damage Reduction Project.

*Deliverables:* Bid advertisement; written answers to questions during bidding; addendums to contract, if/as needed; meeting notes from pre-bid meeting with contractors; documented evaluation of bids and recommendation for award.

**Task 4.2: Construction**

It is anticipated that two separate design packages and contracts, corresponding to the two groups of elements of the Recreation and Public Access Project ((1) Bill Williams Creek Culvert Replacement; Phoenix Lake Watershed Trail Improvements; and Road-Related Sediment Reduction Projects, and (2) Visitor Use Facility Upgrades), will be advertised and awarded for construction. Construction is divided into three categories: mobilization and site preparation; project construction; and demobilization.

**Task 4.2.1: Mobilization and Site Preparation**

This category of work includes several items as described in the table below.



<b>Mobilization and Site Preparation Work</b>	
Staging area	Establish the on-site work staging area and support facilities (e.g., water tank, electric power)
Stockpile area	Establish stockpile area for temporary storage of excavated material, building materials
Mobilization	Mobilize equipment to the site
Wildlife protection	Set up exclusionary fencing as required by the ECW (see section Task 5 below)

**Task 4.2.2: Project Construction**

This category of work includes several items as described in the table below.

<b>Project Construction Work</b>	
Trails	Construct trail improvements
Road Improvements	Construct road improvements
Culverts	Furnish and install arch and pipe culverts
Erosion protection	Install erosion protection
Facilities (Visitor Use Facilities contract only)	Furnish and install kiosks, benches, and restrooms

**Task 4.2.3: Performance Testing and Demobilization**

This category of work includes several items as tabulated below relating to the construction contract.

<b>Performance Testing and Demobilization Work (Construction Contract)</b>	
Demobilization	Demobilize equipment and remove support facilities and temporary hookups from the site
Site restoration	Finish grade disturbed areas; hydroseed and install erosion control; plant other vegetation in disturbed areas as needed

**Task 4.2.4: Monitoring System Work**

No work is anticipated in this category.

**Task 5: Environmental Compliance/Mitigation/Enhancement**

It is anticipated that an outcome of environmental review under CEQA and NEPA and regulatory permitting will be various environmental compliance, mitigation, and enhancement measures that will be required during and post-construction. Since the environmental review has not been initiated, it is impossible at this time to predict exactly what measures will be required but, for purposes of this grant application, the following measures are anticipated.

<b>Environmental Compliance, Mitigation and Enhancement</b>	
Environmental Compliance Workplan	Preparation of an written Environmental Compliance Workplan (ECW) <sup>16</sup> which will identify special-status species and other sensitive biological resources occurring in the Project area; describe pre-construction biological surveys and avoidance measures (e.g., exclusionary fencing); describe

<sup>16</sup> It is anticipated that the ECW will cover the whole Phoenix Lake IRWM Retrofit, as described in the Flood Damage Reduction Project Task 3: Planning/Design/Engineering/Environmental Documentation. The cost for the ECW has been split according to each project's pro-rata construction cost, as reflected in the Budget.

	construction avoidance measures (e.g., construction season, exclusionary fencing) and monitoring; describe water quality monitoring; describe post-construction restoration and mitigation measures; and describe post-construction mitigation monitoring
Pre-construction biological surveys	Perform pre-construction biological surveys as required in the ECW
Construction monitoring	Perform continuous, on-site monitoring by an on-site resident biologist during all phases of construction activities to ensure compliance with the ECW
Post-construction monitoring (initial verification monitoring only – not long term)	Perform post-construction initial monitoring to verify and document initial installation of restoration and mitigation as required in the ECW

Deliverables: *Environmental Compliance Workplan Report; pre-construction biological survey report; construction monitoring report; post-construction monitoring (initial verification) report.*

#### **Task 6: Construction Administration**

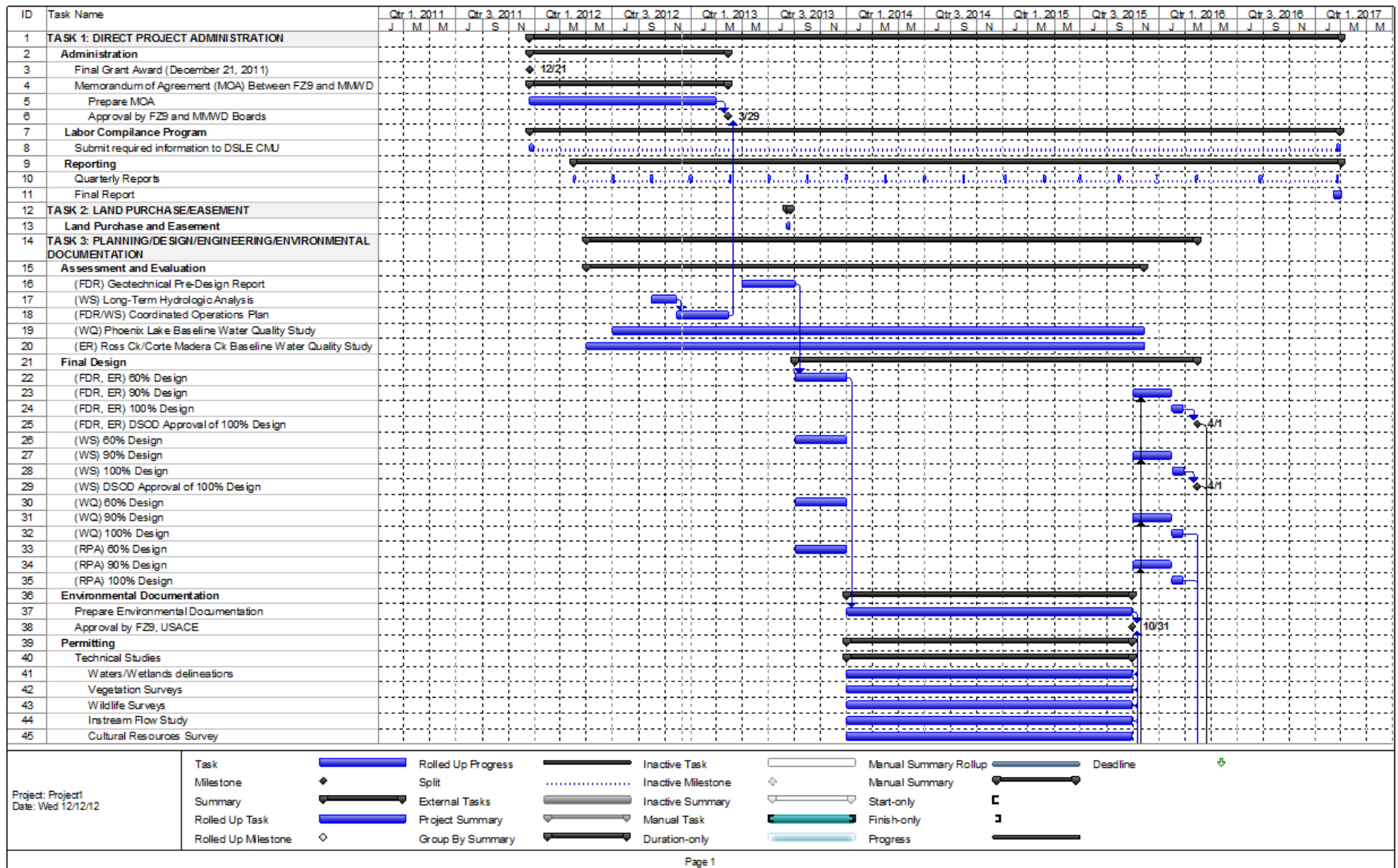
Same as Task 6 in the Flood Damage Reduction Project.

Deliverables: *Meeting notes on pre-construction meeting; field-inspection reports; documented materials certifications and earthwork testing results; review/approved shop drawings, if/as needed; change orders, if/as needed; documented review and recommendations for progress and final payments to contractors.*

#### **Task 7: Construction/Implementation Contingency**

A contingency of 25% has been assigned to Construction/Implementation Contingency for the Recreation and Public Access Project because it is currently at the Concept (30%) Design stage and no environmental review or permitting work, such as informal consultations with resource agencies, have been completed. The contingency is intended to cover unforeseen construction costs that might arise as the projects progress through further stages of design, environmental review, and permitting and any unlisted items not detailed in the construction cost estimate.

**EXHIBIT B  
SCHEDULE**



ID	Task Name	Qtr 1, 2011			Qtr 3, 2011			Qtr 1, 2012			Qtr 3, 2012			Qtr 1, 2013			Qtr 3, 2013			Qtr 1, 2014			Qtr 3, 2014			Qtr 1, 2015			Qtr 3, 2015			Qtr 1, 2016			Qtr 3, 2016			Qtr 1, 2017		
		J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M
46	Biological Assessment																																							
47	Applications																																							
48	USACE 404																																							
49	NOAA/USFWS Section 7 Consultation																																							
50	Regional Board 401																																							
51	DFS 1200																																							
52	DWR-DSOD (initial)																																							
53	County Grading/Building/Watercourse																																							
54	Permits Approved/Issued																																							
55	<b>TASK 4: CONSTRUCTION/IMPLEMENTATION</b>																																							
56	Construction Contracting																																							
57	Construction																																							
58	(FDR, ER)																																							
59	(WS)																																							
60	(WQ)																																							
61	(RPA)																																							
62	<b>TASK 5: ENVIRONMENTAL COMPLIANCE/MITIGATION/ENHANCEMENT</b>																																							
63	Environmental Compliance/Mitigation/Enhancement																																							
64	Environmental Compliance Workplan																																							
65	Pre-construction Biological Survey																																							
66	Construction Monitoring																																							
67	Post-construction (initial) Mitigation and Restoration																																							
68	<b>TASK 6: CONSTRUCTION ADMINISTRATION</b>																																							
69	Construction Administration																																							
70	<b>TASK 7: CONSTRUCTION/IMPLEMENTATION CONTINGENCY</b>																																							
71	Construction/Implementation Contringency																																							

Project: Project1  
Date: Wed 12/12/12

	Task		Split		Inactive Task		Manual Summary Rollup		Deadline	
	Milestone		Inactive Milestone		Inactive Summary		Manual Summary		Start-only	
	Summary		Inactive Summary		Manual Task		Start-only		Start-only	
	Rolled Up Task		Project Summary		Manual Task		Finish-only		Start-only	
	Rolled Up Milestone		Group By Summary		Duration-only		Progress		Start-only	

**EXHIBIT C  
BUDGET**

**1.0 General Overview of Budget**

The following presents the budget for the Phoenix Lake IRWM Retrofit and includes detailed estimates of costs and funding sources for all five component projects comprising the Retrofit. Also included are summary budgets for all five projects and a summary budget for the whole Retrofit proposal.

<b>Phoenix Lake IRWM Retrofit  Project Summary Budget</b>					
<b>Individual Project Title</b>	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>	<b>(e)</b>
	<b>Non-State Share *  (Funding Match)</b>	<b>Requested Grant Funding  (DWR Grant Amount)</b>	<b>Other Funding Sources</b>	<b>Total</b>	<b>% Funding Match</b>
Flood Damage Reduction Project	\$7,709,000	\$6,089,000		\$13,798,000	56%
Water Supply Project	\$484,400	\$341,000		\$825,400	59%
Water Quality Project	\$233,600	\$191,000		\$424,600	55%
Ecosystem Recreation Project	\$2,657,300	\$135,000		\$2,792,300	95%
Recreation and Public Access Project	\$945,850	\$905,000		\$1,850,850	51%
<b>Grand Total</b>	<b>\$12,030,150</b>	<b>\$7,661,000</b>	<b>\$0</b>	<b>\$19,691,150</b>	<b>61%</b>
* Non-State funding source: FZ9 drainage fee					

Flood Damage Reduction Project Budget						
Budgetary Category		(a)	(b)	(c)	(d)	(e)
		Non-State Share * (Funding Match)	Requested Grant Funding	Other Funding Sources	Total	% Funding Match
Task 1	Direct Project Administration Costs	\$210,700	\$204,700	\$0	\$415,400	
Task 2	Land Purchase/Easement	\$17,400	\$0	\$0	\$17,400	
Task 3	Planning/Design/Engineering/Environmental Documentation	\$970,900	\$396,000	\$0	\$1,366,900	
Task 4	Construction/Implementation	\$4,805,300	\$4,125,000	\$0	\$8,930,300	
Task 5	Environmental Compliance/ Mitigation/ Enhancement	\$165,000	\$130,000	\$0	\$295,000	
Task 6	Construction Administration	\$338,400	\$202,000	\$0	\$540,400	
Task 7	Construction/Implementation Contingency (25%)	\$1,201,300	\$1,031,300	\$0	\$2,232,600	
<b>Grand Total</b>		<b>\$7,709,000</b>	<b>\$6,089,000</b>	<b>\$0</b>	<b>\$13,798,000</b>	<b>56%</b>

\* Non-State funding source: FZ9 drainage fee

Water Supply Project Budget						
Budgetary Category		(a)	(b)	(c)	(d)	(e)
		Non-State Share * (Funding Match)	Requested Grant Funding	Other Funding Sources	Total	% Funding Match
Task 1	Direct Project Administration Costs	\$15,000	\$15,000	\$0	\$30,000	
Task 2	Land Purchase/Easement	\$0	\$0	\$0	\$0	
Task 3	Planning/Design/Engineering/Environmental Documentation	\$160,800	\$71,700	\$0	\$232,500	
Task 4	Construction/Implementation	\$143,500	\$137,000	\$0	\$280,500	
Task 5	Environmental Compliance/Mitigation/Enhancement	\$112,500	\$75,000	\$0	\$187,500	
Task 6	Construction Administration	\$16,700	\$8,000	\$0	\$24,700	
Task 7	Construction/Implementation Contingency (25%)	\$35,900	\$34,300	\$0	\$70,200	
<b>Grand Total</b>		<b>\$484,400</b>	<b>\$341,000</b>	<b>\$0</b>	<b>\$825,400</b>	<b>59%</b>
* Non-State funding source: FZ9 drainage fee						

Water Quality Project Budget						
Budgetary Category		(a)	(b)	(c)	(d)	(e)
		Non-State Share * (Funding Match)	Requested Grant Funding	Other Funding Sources	Total	% Funding Match
Task 1	Direct Project Administration Costs	\$5,200	\$3,000	\$0	\$8,200	
Task 2	Land Purchase/Easement	\$0	\$0	\$0	\$0	
Task 3	Planning/Design/Engineering/Environmental Documentation	\$43,300	\$12,000	\$0	\$55,300	
Task 4	Construction/Implementation	\$68,400	\$67,000	\$0	\$135,400	
Task 5	Environmental Compliance/Mitigation/Enhancement	\$75,000	\$75,000	\$0	\$150,000	
Task 6	Construction Administration	\$24,600	\$17,000	\$0	\$41,600	
Task 7	Construction/Implementation Contingency (25%)	\$17,100	\$17,000	\$0	\$34,100	
<b>Grand Total</b>		<b>\$233,600</b>	<b>\$191,000</b>	<b>\$0</b>	<b>\$424,600</b>	<b>55%</b>
* Non-State funding source: FZ9 drainage fee						



Ecosystem Restoration Project Budget						
Budgetary Category		(a)	(b)	(c)	(d)	(e)
		Non-State Share * (Funding Match)	Requested Grant Funding	Other Funding Sources	Total	% Funding Match
Task 1	Direct Project Administration Costs	\$3,600	\$2,500	\$0	\$6,100	
Task 2	Land Purchase/Easement	\$0	\$0	\$0	\$0	
Task 3	Planning/Design/Engineering/Environmental Documentation	\$241,900	\$49,500	\$0	\$291,400	
Task 4	Construction/Implementation	\$1,808,300	\$65,000	\$0	\$1,873,300	
Task 5	Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$0	
Task 6	Construction Administration	\$151,400	\$2,000	\$0	\$153,400	
Task 7	Construction/Implementation Contingency (25%)	\$452,100	\$16,000	\$0	\$468,100	
<b>Grand Total</b>		<b>\$2,657,300</b>	<b>\$135,000</b>	<b>\$0</b>	<b>\$2,792,300</b>	<b>95%</b>
* Non-State funding source: FZ9 drainage fee						

Recreation and Public Access Project Budget						
Budgetary Category		(a)	(b)	(c)	(d)	(e)
		Non-State Share * (Funding Match)	Requested Grant Funding	Other Funding Sources	Total	% Funding Match
Task 1	Direct Project Administration Costs	\$32,200	\$31,500	\$0	\$63,700	
Task 2	Land Purchase/Easement	\$0	\$0	\$0	\$0	
Task 3	Planning/Design/Engineering/Environmental Documentation	\$146,100	\$109,000	\$0	\$255,100	
Task 4	Construction/Implementation	\$552,050	\$554,000	\$0	\$1,106,050	
Task 5	Environmental Compliance/Mitigation/Enhancement	\$10,500	\$6,500	\$0	\$17,000	
Task 6	Construction Administration	\$66,000	\$66,000	\$0	\$132,000	
Task 7	Construction/Implementation Contingency (25%)	\$139,000	\$138,000	\$0	\$277,000	
<b>Grand Total</b>		<b>\$945,850</b>	<b>\$905,000</b>	<b>\$0</b>	<b>\$1,850,850</b>	<b>51%</b>

\* Non-State funding source: FZ9 drainage fee

**EXHIBIT D**  
**STANDARD CONDITIONS**

**D.1 ACCOUNTING AND DEPOSIT OF GRANT DISBURSEMENT:**

- a) **SEPARATE ACCOUNTING OF GRANT DISBURSEMENT AND INTEREST RECORDS:** Grantee shall account for the money disbursed pursuant to this Grant Agreement separately from all other Grantee funds. Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. Grantee shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of such funds. Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by State at any and all reasonable times.
- b) **FISCAL MANAGEMENT SYSTEMS AND ACCOUNTING STANDARDS:** The Grantee agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit tracing of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of state law or this Grant Agreement.
- c) **REMITTANCE OF UNEXPENDED FUNDS:** Grantee, within a period of sixty (60) calendar days from the final disbursement from State to Grantee of grant funds, shall remit to State any unexpended funds that were disbursed to Grantee under this Grant Agreement and were not needed to pay Eligible Project Costs.

**D.2 ACKNOWLEDGEMENT OF CREDIT:** Grantee shall include appropriate acknowledgement of credit to the State and to all cost-sharing partners for their support when promoting the project or using any data and/or information developed under this Grant Agreement. During construction of the project, Grantee shall install a sign at a prominent location, which shall include a statement that the project is financed under the Disaster Preparedness and Flood Prevention Bond Act of 2006, administered by State of California, Department of Water Resources. Grantee shall notify State that the sign has been erected by providing them with a site map with the sign location noted and a photograph of the sign.

**D.3 AMENDMENT:** No amendment or variation of the terms of this Grant Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in the Grant Agreement is binding on any of the parties. For guidance on the Amendment Requirements see Exhibit G.

**D.4 AMERICANS WITH DISABILITIES ACT:** By signing this Grant Agreement, Grantee assures State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C., 12101 *et seq.*), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

**D.5 AUDITS:** State reserves the right to conduct an audit at any time between the execution of this Grant Agreement and the completion of the project, with the costs of such audit borne by State. After completion of the project, State may require Grantee to conduct a final audit, at Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may take any action it deems necessary to protect its interests.

Pursuant to Government Code Section 8546.7, the parties shall be subject to the examination and audit of State for a period of three years after final payment under this Grant Agreement with respect of all matters connected with this Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of Grantee or subcontractors shall be preserved for this purpose for at least three (3) years after project completion. See Exhibit G for a listing of documents/records that State Auditors would need to review in the event of a grant being audited.

**D.6 BUDGET CONTINGENCY: LIMIT ON STATE FUNDS.** The Disaster Preparedness and Flood Prevention Bond Act of 2006, is subject to the availability of funds including any mandates from the Department of Finance,

the Pooled Money Investment Board or any other state authority. The State will not make payments of any kind, including advances or reimbursements, until funding is made available by the State Treasurer.

- D.7 CHILD SUPPORT COMPLIANCE ACT:** For any Grant Agreement in excess of \$100,000, the Grantee acknowledges in accordance with Public Contract Code 7110, that:
- a) The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
  - b) The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- D.8 COMPETITIVE BIDDING AND PROCUREMENTS:** Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in Grantee's contracts with other entities for acquisition of goods and services and construction of public works with funds provided by State under this Grant Agreement.
- D.9 COMPUTER SOFTWARE:** The Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Grant Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.
- D.10 CONFLICT OF INTEREST**
- a) **Current State Employees:** No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
  - b) **Former State Employee:** For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.
- D.11 DELIVERY OF INFORMATION, REPORTS, AND DATA:** The Grantee agrees to expeditiously provide, during work on the project and throughout the term of this Grant Agreement, such reports, data, information, and certifications as may be reasonably required by the State.
- D.12 DISPOSITION OF EQUIPMENT:** Grantee shall provide to State, not less than 30 days prior to submission of the final project invoice, a final inventory list of equipment purchased with grant funds provided by State. Grantee shall consult with State on the scope of the inventory not less than 60 days prior to the submission of the final project invoice. The inventory shall include all items with a current estimated fair market value of more than \$5,000 per item. Within 60 days of receipt of such inventory, State shall provide Grantee with a list of the items on the inventory that State will take title to. All other items shall become the property of Grantee. State shall arrange for delivery from Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by State.
- D.13 DISPUTES:** In the event of an invoice dispute, payment will not be made until the dispute is resolved and a corrected invoice submitted. Failure to use the address exactly as provided may result in return of the invoice to the Grantee. Payment shall be deemed complete upon deposit of the payment, properly addressed, postage prepaid, in the United States mail. Any claim that Grantee may have regarding the performance of this Grant Agreement including, but not limited to claims for additional compensation or extension of time, shall be submitted to the Director, Department of Water Resources, within thirty (30)

calendar days of Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to the Grant Agreement to implement the terms of any such resolution.

**D.14 DRUG-FREE WORKPLACE CERTIFICATION**

**Certification of Compliance:** By signing this Grant Agreement, Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 *et seq.*) and have or will provide a drug-free workplace by taking the following actions:

- a) Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code Section 8355(a).
- b) Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors, or subcontractors about all of the following:
  1. The dangers of drug abuse in the workplace,
  2. Grantee's policy of maintaining a drug-free workplace,
  3. Any available counseling, rehabilitation, and employee assistance programs, and
  4. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- c) Provide as required by Government Code Sections 8355(c), that every employee, contractor, and/or subcontractor who works under this Grant Agreement:
  1. Will receive a copy of Grantee's drug-free policy statement, and
  2. Will agree to abide by terms of Grantee's condition of employment, contract or subcontract.

**D.15 FINAL INSPECTIONS AND CERTIFICATION OF REGISTERED CIVIL ENGINEER:** Upon completion of a construction project and as determined by State, Grantee shall provide for a final inspection and certification by a California Registered Civil Engineer that the project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Grant Agreement and to the State's satisfaction.

**D.16 GOVERNING LAW:** This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

**D.17 GRANTEE COMMITMENTS:** Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Funding Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Funding Recipient in the application, documents, amendments, and communications filed in support of its request for California Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 financing.

**D.18 INCOME RESTRICTIONS:** The Grantee agrees that any refunds, rebates, credits, or other amounts (including any interest thereon, accruing to or received by the Grantee under this Grant Agreement shall be paid by the Grantee to the State, to the extent that they are properly allocable to costs for which the Grantee has been reimbursed by the State under this Grant Agreement.

**D.19 INDEPENDENT CAPACITY:** Grantee, and the agents and employees of Grantee, if any, in the performance of the Grant Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.

**D.20 INSPECTIONS:** State shall have the right to inspect the work being performed at any and all reasonable times, providing a minimum of a 24-hour notice, during the term of the Grant Agreement. This right shall extend to any subagreements, and Grantee shall include provisions ensuring such access in all its contracts or sub-contractors entered into pursuant to its Grant Agreement with State. Grantee acknowledges that project documents may be subject to the Public Records Act (California Government Code Section 6250 *et. seq.*). State shall have the right to inspect these documents at any and all reasonable times after completion of the project to ensure compliance with the terms and conditions of this Grant Agreement.

During regular office hours, State shall have the right to inspect and to make copies of any books, records, or reports of the Grantee relating to this Grant Agreement. Grantee shall maintain and shall make available at all times for such inspection accurate records of its costs, disbursements, and receipts with respect to its activities under this Grant Agreement. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may withhold disbursements to Grantee or take any other action it deems necessary to protect its interests.

**D.21 NONDISCRIMINATION:** During the performance of this Grant Agreement, Grantee and its contractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. Grantee and contractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and contractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12990 (a-f) *et seq.*) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 *et seq.*). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Grant Agreement by reference and made a part hereof as if set forth in full. Grantee and its contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Grantee shall include the nondiscrimination and compliance provisions of this clause in all contracts to perform work under the Grant Agreement.

**D.22 NO THIRD PARTY RIGHTS:** The parties to this Grant Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Grant Agreement, or of any duty, covenant, obligation or undertaking established herein.

**D.23 OPINIONS AND DETERMINATIONS:** The parties agree that review or approval of any IRWM Program applications, documents, permits, plans and specifications or other program information by the State is for administrative purposes only and does not relieve the Grantee of its responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the IRWM Program.

**D.24 PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS.** Grantee shall be responsible for obtaining any and all permits, licenses, and approvals required for performing its obligations under this Grant Agreement. Grantee shall comply with the California Environmental Quality Act (PRC Section 21000 *et seq.*) and other applicable federal, State, and local laws, rules, and regulations, guidelines, and requirements prior to disbursement of funds under this Grant Agreement.

Grantee shall keep informed of and take all measures necessary to ensure compliance with California Labor Code requirements.

**D.25 PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION:** Grantee shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the IRWM Program without prior permission of State. Grantee shall not take any action concerning the performance of this Grant Agreement, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of Grantee to meet its obligations under this Grant Agreement, without prior written permission of State. State may require that the proceeds from the disposition of any real or personal property acquired with funds disbursed under this Grant Agreement be remitted to State.

**D.26 REMEDIES, COSTS, AND ATTORNEY FEES:** The Grantee agrees that any remedy provided in this Grant Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State as a result of breach of this Grant Agreement by the Grantee, whether such breach occurs before or after completion of the project, and exercise of any remedy provided by this Grant Agreement by the State shall not preclude the State from pursuing any legal remedy or right which would otherwise be

available. In the event of litigation between the parties hereto arising from this Grant Agreement, it is agreed that the prevailing party shall be entitled to such reasonable costs and/or attorney fees as may be ordered by the court entertaining such litigation.

**D.27 RETENTION:** Notwithstanding any other provision of this Grant Agreement, State shall, for each project, withhold five percent (5.0%) until January 1, 2016 and ten percent (10.0%), thereafter, of the funds requested by Grantee for reimbursement of Eligible Costs. Each project in this Grant Agreement will be eligible to release its respective retention when that project is completed and Grantee has met requirements of Paragraph 16, "Submissions of Reports."

**D.28 RIGHTS IN DATA:** To the extent permitted by law, the Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Grant Agreement shall be in the public domain. The Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected, and developed under this Grant Agreement, subject to appropriate acknowledgement of credit to the State for financial support. The Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so.

**D.29 SEVERABILITY OF UNENFORCEABLE PROVISION:** If any provision of this Grant Agreement is held invalid or unenforceable by a court of final jurisdiction, all other provisions of this Grant Agreement shall be construed to remain fully valid, enforceable, and binding on the parties.

**D.30 STATE REVIEWS AND INDEMNIFICATION:** The parties agree that review or approval of project applications, documents, permits, plans and specifications or other project information by the State is for administrative purposes only and does not relieve the Grantee of their responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the project. To the extent permitted by law, the Grantee agrees to indemnify, defend and hold harmless the State and the State against any loss or liability arising out of any claim or action brought against the State from and against any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever arising out of, resulting from, or in any way connected with:

- a) The project or the conditions, occupancy, use, possession, conduct or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the project or any part thereof;
- b) Performing any of the terms contained in this Grant Agreement or any related document;
- c) Any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the California Hazardous Waste Control Law and CWC Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the natural water system; or
- d) Any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which they were made, not misleading with respect to any information provided by the Grantee for use in any disclosure document utilized in connection with any of the transactions contemplated by this Grant Agreement. Grantee agrees to pay and discharge any judgment or award entered or made against the State with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section shall survive the term of the Grant Agreement.

**D.31 SUCCESSORS AND ASSIGNS:** This Grant Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Grant Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by State and made subject to such reasonable terms and conditions as State may impose.

**D.32 TIMELINESS:** Time is of the essence in this Grant Agreement.

- D.33 TRAVEL:** Grantee agrees that travel and per diem costs shall NOT be eligible for reimbursement with State funds, and shall NOT be eligible for computing Grantee cost match. Travel includes the costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Grant Agreement.
- D.34 WAIVER OF RIGHTS:** None of the provisions of this Grant Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Grant Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Grant Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.



**EXHIBIT E**  
**REPORT FORMAT AND REQUIREMENTS**

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

**QUARTERLY PROGRESS REPORT**

Grantee shall submit Quarterly Progress Reports on a consistent basis to meet the State's requirement for disbursement of funds. The Quarterly Progress Report should describe the work performed during the reporting period. For each project, describe the work performed including:

**PROJECT INFORMATION (INCLUDE ANY OF THE BELOW THAT WERE APPLICABLE DURING THE REPORTING PERIOD)**

- Legal matters.
- Engineering matters.
- Environmental matters.
- Status of permits, easements, rights-of-way, and approvals as may be required by other State, federal, and/or local agencies.
- Major accomplishments during the quarter (i.e., tasks completed, milestones met, meetings held or attended, press releases, etc).
- Discussion of data submittal effort(s) for the previous quarter, including a description of the data submitted and date(s) of submittal.
- Issues/concerns that have, will, or could affect the schedule or budget, with a recommendation on how to correct the matter.
- Description of any differences between the work performed and the work outlined in this Grant Agreement's Work Plan.

**COST INFORMATION**

- Provide a list showing all costs incurred during the quarter by the Grantee and each contractor working on the project. The list should include for all non-construction, or implementation costs, (i.e., design, and admin charges) the hours per task worked on during the quarter for above personnel.
- A discussion on how the actual budget is progressing in comparison to Exhibit C.

**SCHEDULE INFORMATION**

- A discussion on how the actual schedule is progressing in comparison to the schedule in Exhibit B.
- A revised schedule, by task, if changed from the schedule in Exhibit B. Note: a revised schedule may require an official amendment to the Grant Agreement before it is accepted as final.

**ANTICIPATED ACTIVITIES NEXT QUARTER**

- Provide a description of anticipated activities for the next quarterly reporting period.

**PROJECT COMPLETION REPORT**

A Project Completion Report is required for each project identified in Exhibit A. This report will include the following Sections:

**EXECUTIVE SUMMARY**

The Executive Summary consists of a maximum of ten (10) pages summarizing project information (see report status section below for topics). The Executive Summary should include the following:

- Brief description of work proposed to be done in the original Grant application.

- Description of actual work completed and any deviations from Exhibit A. List any official amendments to this Grant Agreement, with a short description of the amendment.
- Describe how the implemented project will meet the program preferences identified in the original Grant Application.
- Describe the mechanism or process that allows for continued performance monitoring of the project in meeting the objectives of the IRWM Plan.
- Identify any changes to the IRWM Plan as a result of implementation of the project.

#### **REPORTS AND/OR PRODUCTS**

- Provide a copy of any final technical report or study, produced for the project as described in the Work Plan, if applicable.
- Provide a map and shapefile(s) showing the location of the completed project. A description of the geographic projection and datum used for the shapefile must be submitted with the shapefile (a NAD '83 datum and either a UTM 10 or UTM 11 projection, dependent on the project's location in the state, should be utilized).
- If any wells were constructed as part of the project, provide the following information: well logs; borehole geophysical logs; state well number; site information to include horizontal (NAD '83) and vertical (NAVD '88) datum to be determined within 0.5 feet.
- Provide an electronic copy of any as-built plans (media: CD-ROM; PDF format).
- Provide copies of any data collected along with location maps.
- If applicable, describe the findings of any study and whether the study determined the engineering, hydrologic, hydrogeologic, environmental, economic and financial feasibility of the project.

#### **COST & DISPOSITION OF FUNDS INFORMATION**

- A list of invoices showing:
  - The date each invoice was submitted to State.
  - The amount of the invoice.
  - The date the check was received.
  - The amount of the check (If a check has not been received for the final invoice, then state this in this section).
- A spreadsheet summary of the original budget costs by task versus the final project costs.
- A summary of final funds disbursement including:
  - Labor cost of personnel of agency/ major consultant /sub-consultants (Indicate personnel, hours, rates, type of profession and reason for consultant, i.e., design, CEQA work, etc).
  - Construction cost information, shown by material, equipment, labor costs, and change orders.
  - Any other incurred cost detail.
  - A statement verifying separate accounting of grant disbursements.
- Summary of project cost including:
  - Accounting of the cost of project expenditure.
  - Include all internal and external costs not previously disclosed.
  - A discussion of factors that positively or negatively affected the project cost and any deviation from the original project cost estimate.

#### **ADDITIONAL INFORMATION**

- Benefits derived from the project, with quantification of such benefits provided, if applicable.
- A final project schedule showing actual progress verse planned progress as shown in Exhibit B.
- Certification from a California Registered Civil Engineer that the project was conducted in accordance with the approved work plan and any approved modifications thereto.
- Submittal schedule for the Post Performance Report and an outline of the proposed reporting format.

## **POST-PERFORMANCE REPORT**

Post Performance Reports are required annually for each project for a period of 10 years beginning after the first year of operation, and includes the following:

### **REPORTS AND/OR PRODUCTS**

- Time period of the annual report.
- Short project description and benefits.
- An assessment of any explanations for any differences between the expected versus actual project benefits. Where applicable, the reporting should include quantitative metrics, i.e., new acre-feet of water recharged that year, acres of wildlife habitat added, etc.
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable.
- Continued reporting on meeting the Output Indicators and Targets discussed in the Project Monitoring Plan discussed in Paragraph 21 of this Grant Agreement.
- Any additional information relevant to or generated by the continued operation of the project.

## **ELECTRONIC REPORT FORMATTING**

Grantee agrees that work funded under this Grant Agreement will be provided in an electronic format to State. Electronic submittal of final reports, plans, studies, data, and other work performed under this grant shall be as follows:

- Text preferably in MS WORD or text PDF format.
- Files generally less than 10 MB in size.
- Files named so that the public can determine their content. For example, file naming of reports must have the title and, if subdivided into smaller sized files, the chapter number/letter and names in the report Table of Content (TOC); files of maps, figures, and tables by number/letter as referenced in the TOC; well logs files with DWR-required naming convention; and Appendix number/letter and named in the TOC.
- For a project involving a modeling component, Grantee shall provide the major input data files, parameters, calibration statistics, output files, and other information requested by State's Project Manager.

**EXHIBIT F**  
**REQUIREMENTS FOR DATA SUBMITTAL**

**SURFACE AND GROUNDWATER QUALITY DATA:**

Groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in Quarterly Progress and Post Performance Reports.

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website:

<http://www.ceden.org>.

If Exhibit A includes a project that contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program. Information on the GAMA Program can be obtained at: [http://www.waterboards.ca.gov/water\\_issues/programs/gama/](http://www.waterboards.ca.gov/water_issues/programs/gama/). If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at:

[http://www.swrcb.ca.gov/water\\_issues/programs/gama/contact.shtml](http://www.swrcb.ca.gov/water_issues/programs/gama/contact.shtml)

**GROUNDWATER LEVEL DATA**

For each project that collects groundwater level data, Grantee will need to submit this data to DWR's Water Data Library (WDL), with a narrative description of data submittal activities included in project reports, as described in Exhibit E. Information regarding the WDL and in what format to submit data in can be found at:

<http://wdl.water.ca.gov/>.

In the near future, DWR's WDL will be replaced by the California Statewide Groundwater Elevation Monitoring program (CASGEM). Once this Program comes online, Grantee will then submit groundwater level data to CASGEM. Information regarding the CASGEM program can be found at:

<http://www.water.ca.gov/groundwater/casgem/>

**Exhibit G**  
**Guidelines for Grantees**  
**Under DWR Financial Assistance Programs**

The following provides a list of documents typically required by State Auditors and general guidelines for Grantees. List of documents pertains to both Grant funding and Grantee's Funding Match and details the documents/records that State Auditors would need to review in the event of this Grant Agreement is audited. Grantees should ensure that such records are maintained for each funded project.

**List of Documents for State Audit**

Internal Controls:

1. Organization chart (e.g., Agency's overall organization chart and organization chart for this Grant Agreement's funded project).
2. Written internal procedures and flowcharts for the following:
  - a. Receipts, deposits and disbursements
  - b. State reimbursement requests
  - c. Grant expenditure tracking
  - d. Guidelines, policy, and procedures on grant funded Programs/Project
3. Audit reports of the Agency internal control structure and/or financial statements within the last two years.
4. Prior audit reports on grant funded Programs/Project.

Agreements and Contracts:

1. Original signed Grant Agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants received from the State.
3. A listing of all other funding sources for each project.
4. All subcontractor and consultant contracts and related or partners documents, if applicable.
5. Contracts between the Agency and member agencies as related to this Grant Agreement.

Invoices:

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under this Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement, requests and related budget line items under this Grant Agreement.
3. Reimbursement requests submitted to the State for this Grant Agreement.

Cash Documents:

1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under this Grant Agreement.
4. Bank statements showing the deposit of the receipts.

Accounting Records:

1. Ledgers showing entries for receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for grant reimbursement.

Administration Costs: Supporting documents showing the calculation of administration costs.

Personnel:

1. List of all contractors and Agency staff that worked on this grant funded Program/Project.
2. Payroll records including timesheets for contractor staff and the Agency personnel who provided services charged to this Grant Agreement.

Project Files:

1. All supporting documentation maintained in the project files.
2. All correspondence related to this Grant Agreement.

**General Grant Agreement Guidelines**

Amendment Requirements:

Amendments to the Work Plan, Budget, and/or Schedule of this Grant Agreement are triggered when the proposed changes are deemed by the State to be substantial. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. For example, a formal budget change to an Agreement is required when the proposed budget change of grant funding portion for a Task is greater than 10% of the budget for that particular Task or the Task to be exchanged with.

Funding Match Contribution

Funding Match (often referred to as Grantee Cost Share) is the amount defined in Paragraph 4 of this Grant Agreement. Provided below is guidance for claiming funding match with and without in-kind services.

1. Adequate documentation supporting value of in-kind service (or volunteer service) as funding match claimed shall be maintained. Although tracked separately, in-kind services shall be documented and, to the extent feasible, supported by the same methods used by the Grantee for its own employees. Provide formal (on official letterhead) and substantial documentation of in-kind service by including the following:
  - o Describe contributed item(s) or service(s)
  - o Purpose for which contribution was made (tie to scope of work)
  - o Name of contributing organization and date of contribution
  - o Real or approximate value of contribution. Who valued the contribution and how was the value determined? (e.g., actual, appraisal, fair market value, etc.). Justification of rate. (see item #4, below)
  - o Person's name and function of the contributing person
  - o Hours of contribution
  - o If multiple sources exist, summarize these on a table with summed charges
  - o Was contribution provided by, obtained with, or supported by government funds? If so, indicate source.
2. Funding match contribution (including in kind services) shall be for costs and services directly attributed to activities included in this Grant Agreement's Work Plan. These services, furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind if the activities are an integral and necessary part of this Grant Agreement. Evaluate eligibility with State in advance of submittal.
3. Do not track cash contributions made to a project as an expenditure as you would for an in-kind service. When providing funding match, track cash contributions to the project (i.e. revenues) and expenditures (typically in-kind contribution) separately in an accounting system.
4. Rates for volunteer or in-kind services shall be consistent with those paid for similar work in the Grantee's organization. For example, volunteer service of clearing vegetation performed by an attorney shall be valued at a fair market value for this service, not the rate for professional legal services. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

EXHIBIT H  
GRANTEE RESOLUTION

**RESOLUTION NO. 2011-17**  
**RESOLUTION OF THE MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AUTHORIZING THE PRESIDENT TO SUBMIT AN APPLICATION AND EXECUTE AN AGREEMENT WITH THE STATE OF CALIFORNIA FOR A STORMWATER FLOOD MANAGEMENT GRANT**

**WHEREAS**, the California Department of Water Resources has issued a solicitation for applications for Stormwater Flood Management grants, funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Proposition 1E); and

**WHEREAS**, the Marin County Flood Control and Water Conservation District has identified the "Phoenix Lake Retrofit", hereafter the "PROJECT", as being fully responsive to the requirements for the grant; and

**WHEREAS**, the Marin County Flood Control and Water Conservation District and the Marin Municipal Water District agree to enter into a Memorandum of Understanding to cooperate in identifying the elements of the PROJECT and in seeking funding for the PROJECT; and

**WHEREAS**, the County of Marin is authorized to enter into a financial assistance agreement with the State of California.

**NOW, THEREFORE, BE IT RESOLVED** that the Marin County Board of Supervisors of the Flood Control District hereby authorizes that application be made to the California Department of Water Resources to obtain Stormwater Flood Management grant funding pursuant to the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Proposition 1E); and

**BE IT FURTHER RESOLVED** that the Marin County Board of Supervisors of the Flood Control District hereby authorizes the President of the Board of Supervisors to enter into an agreement to receive a grant for the "Phoenix Lake Retrofit" project; and

**BE IT FURTHER RESOLVED** that the Marin County Board of Supervisors of the Flood Control District hereby authorizes the District Engineer to act as the Project Director and to execute any financial assistance agreements or amendments, agreements, invoices, or any other documents related to or required for the administration of said application and agreement.

**PASSED AND ADOPTED** at regular meeting of the Board of Supervisors of the County of Marin held on the 22nd day of March, 2011, by the following vote:

AYES: SUPERVISORS Judy Arnold, Charles McGlashan, Steve Kinsey,  
Susan L. Adams

NOES: NONE

ABSENT: SUPERVISOR Harold C. Brown, Jr.

  
\_\_\_\_\_  
PRESIDENT, BOARD OF SUPERVISORS  
MARIN COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

ATTEST:   
\_\_\_\_\_  
CLERK  
Marin County Flood Control and  
Water Conservation District

