



Monterey County

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Board Report

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Consider approving Amendment No. 4 to the Agreement for Professional Services with AECOM Technical Services, Inc. for an amount of \$73,010 for inundation studies and mapping for Nacimiento and San Antonio Dams, and authorizing the General Manager to execute the Amendment.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Approve Amendment No. 4 to the Agreement for Professional Services with AECOM Technical Services, Inc. for an amount of \$73,010 for inundation studies and mapping for Nacimiento and San Antonio Dams, and authorize the General Manager to execute the Amendment.

SUMMARY/DISCUSSION:

Monterey County Water Resources Agency (MCWRA) received a letter from the Calif. Dept. of Water Resources, Division of Dam Safety (DSOD) dated July 14, 2017 notifying dam owners of new State law, effective July 1, 2017, requiring preparation of Emergency Action Plans (EAP) to include mapping of areas of inundation downstream of Nacimiento Dam and San Antonio Dam in the event of catastrophic dam failure, or failure of critical dam appurtenant structures (Calif. Water Code Sections 6160 and 6161). Submittal of a new EAP for San Antonio Dam and updated EAP for Nacimiento Dam, with inundation mapping, to DSOD is required by January 1, 2018.

MCWRA has maintained an EAP, with inundation mapping, and annually distributes updates for a catastrophic failure of the Nacimiento Dam embankment structure to emergency responders throughout Monterey and San Luis Obispo Counties. MCWRA has relied upon the Nacimiento Dam EAP for identification of emergency notifications for a San Antonio Dam failure scenario, and the Nacimiento Dam inundation mapping has been viewed as a reasonable approximation of San Antonio Dam inundation in the event of a San Antonio Dam catastrophic failure due to the similarity in dam location, construction, size, reservoir storage volume, and downstream geography. Therefore, an additional EAP and mapping was not previously prepared specifically for San Antonio Dam. MCWRA staff has begun preparation of an EAP specifically for San Antonio Dam, which will be updated annually along with the Nacimiento Dam EAP.

The new State law requires inundation mapping for catastrophic dam failure, and separately for failure of critical dam appurtenances, which for Nacimiento and San Antonio Dams requires study and mapping of a total of three failure scenarios, as follows:

- Failure of San Antonio Dam embankment structure with full reservoir
- Failure of San Antonio Dam spillway crest structure (ogee) with full reservoir

- Failure of the Nacimiento Dam spillway inflatable crest gates with full reservoir

Inundation mapping for a catastrophic failure of the Nacimiento Dam embankment structure does not need to be re-studied at this time, however, the existing maps will be reviewed under the new law.

MCWRA does not have internal capability to perform these studies and mapping, therefore outside services are required. AECOM Technical Services, Inc. has been providing inspection and performance evaluation services for San Antonio Dam since 2006. AECOM is a full service engineering firm with capabilities and experience with modeling dam failure inundation scenarios and mapping. The submittal time frame and other staff work load did not allow for a lengthier Request for Proposal process and AECOM was solicited to turn around a cost proposal quickly.

The Scope of Work includes modeling and inundation mapping for the three scenarios above, and report and map preparation for submittal to DSOD. The updated EAP and additional inundation mapping for Nacimiento Dam will also be submitted to the Federal Energy Regulatory Commission (FERC) as that agency also has dam safety regulatory jurisdiction at Nacimiento Dam. The not-to-exceed cost for inundation mapping for the three scenarios above is \$73,010.

OTHER AGENCY INVOLVEMENT:

Review and approval of inundation maps for both dams will be performed by the Calif. Dept. of Water Resources, Division of Safety of Dams (DSOD). EAP's for both dams will be reviewed and approved by the Calif. Office of Emergency Services (Cal OES). The Federal Energy Regulatory Commission (FERC) will also review and approve the EAP and inundation maps for Nacimiento Dam.

FINANCING:

Payment for work under this Amendment requires the use of discretionary hydroelectric revenue in order to meet DSOD requirements and timeline. Work under this Amendment will be payable from Fund 130, Nacimiento Hydroelectric Plant Operations and Maintenance, fiscal year 2017-18.

Prepared by: Chris Moss, Senior Water Resources Engineer (831) 755-4860

Approved by: _____
David E. Chardavoyne, General Manager, (831) 755-4860

Attachments:

1. Board Order
2. Letters from Calif. Dept. of Water Resources, DSOD dated July 14, 2017
3. Amendment No. 4
4. Copy of Amendment Nos. 1, 2 and 3
5. Copy of Original Agreement for Professional Services

