



## Board Report

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**File #:** WRAG 20-136, **Version:** 1

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- a. Consider approving Change Order No. 5 to the contract with Graniterock Company for Nacimiento Dam spillway repair work to increase the contract amount by \$260,000 and extend the contract term to December 31, 2021; and
- b. Consider approving Change Order No. 5 to the contract with Graniterock Company for San Antonio Dam spillway repair work to extend the contract term to December 31, 2021; and
- c. Authorize the General Manager to execute both Change Orders.

**RECOMMENDATION:**

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

- a. Approve Change Order No. 5 to the contract with Graniterock Company for Nacimiento Dam spillway repair work to increase the contract amount by \$260,000 and extend the contract term to December 31, 2021; and
- b. Approve Change Order No. 5 to the contract with Graniterock Company for San Antonio Dam spillway repair work to extend the contract term to December 31, 2021; and
- c. Authorize the General Manager to execute both Change Orders.

**SUMMARY/DISCUSSION:**

Nacimiento and San Antonio Dams are regulated with regard to dam safety matters by the California Department of Water Resources, Division of Safety of Dams (DSOD). Nacimiento Dam is also regulated by the Federal Energy Regulatory Commission (FERC) due to the hydroelectric plant at the dam.

After the 2017 Oroville dam spillway incident, DSOD and FERC directed the Agency (and all high hazard dam owners) to submit Work Plans for spillway work needed before the 2017-18 winter, conduct a focused spillway inspection, and submit a Spillway Condition Assessment Report. Work Plans were provided for both spillways in July 2017. Graniterock Company was hired in late 2017 to complete the Work Plans for Nacimiento and San Antonio spillways under Agency Board of Director's recommendation (September 18, 2017), and Agency Board of Supervisor's authorization of the General Manager to enter into a construction contract on an emergency basis for immediate repairs to the spillways (September 26, 2017).

A San Antonio Dam Spillway Condition Assessment Report was submitted to DSOD in May 2018, and a Nacimiento Dam Spillway Condition Assessment Report was submitted to DSOD and FERC in July 2018. Those reports recommended additional repair beyond the 2017 Work Plans for both spillways. Additional work for San Antonio Dam spillway was approved by DSOD. A more substantial Scope of Work addressing report recommendations for Nacimiento Dam spillway was submitted to DSOD and FERC in July 2018. DSOD provided approval to proceed. FERC requested revisions, which were made, and FERC approval was obtained in October 2019.

Graniterock Company performed repair work at Nacimiento Dam spillway in late 2017, early 2018, fall 2019 and early 2020, consisting of delaminated concrete removal and replacement, concrete spall repair, sealing

concrete slab joints, grinding concrete slab joint offsets, and assisting with borescope exploration under the concrete chute slabs. Change Order No. 5 to the Nacimiento contract increases the contract amount by \$260,000, to a total contract amount of \$672,000, and extends the contract time to December 31, 2021 to allow the remaining spillway work contained in the revised Nacimiento Dam Spillway Scope of Work to be completed over two fiscal years 2020-21 and 2021-22. The remaining Scope of Work includes:

- Seal moving cracks, non-moving cracks, and fine cracks in spillway concrete chute;
- Remove and replace identified delaminated spillway chute concrete; and
- Repair concrete spalls

Quality control and inspection of the work performed by Graniterock will be conducted by Agency staff or a qualified consultant.

Work completed in 2019 at Nacimiento Dam spillway included borescope exploration, consisting of drilling 5/8" diameter holes in the concrete chute slab and utilizing a small video camera to search for any voids under the slab. Voids were found under one concrete slab that will require substantial repair work. This Change Order does not address this needed repair. An engineering design of this repair and FERC and DSOD approval of the design is needed before construction on this repair may begin. Information will be brought to the Board of Directors separately as this specific repair process proceeds.

Work performed by Graniterock at San Antonio Dam spillway consisted of delaminated concrete removal and repair, grinding concrete offset joints, and sealing wall joints. Change Order No. 5 to the San Antonio contract extends the contract time to allow Graniterock Company to proceed with repairing a broken drain pipe and spillway chute subdrain system pilot repair. This Change Order time extension to December 31, 2021 coincides with the Nacimiento Dam contract time extension to allow coordination of work timing at both spillways. The total contract amount for San Antonio Spillway remains \$135,000.

#### OTHER AGENCY INVOLVEMENT:

FERC and DSOD have approved the Scope of Work for Nacimiento Dam spillway to be performed by Graniterock Company. DSOD has approved the drain pipe repair for San Antonio Dam spillway to be performed by Graniterock Company. San Antonio spillway chute subdrain system pilot repair remains to be submitted and approved by DSOD.

#### FINANCING:

\$ 60,000 payable from FY 2019-20 Fund 116 - Nacimiento Dam Operation and Maintenance

\$200,000 payable from FY 2020-21 Fund 116 - Nacimiento Dam Operation and Maintenance

\$260,000 Total for Nacimiento Dam Spillway Contract Change Order #5

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Approved by: Brent Buche, General Manager (831) 755-4860

#### Attachments:

1. Change Order No. 5 for Nacimiento
2. Change Order Nos. 1, 2, 3 and 4 for Nacimiento
3. 2017 Nacimiento Dam Spillway Emergency Repairs Project Time and Materials Contract

4. Change Order No. 5 for San Antonio
5. Change Order Nos. 1, 2, 3 and 4 for San Antonio
6. 2017 San Antonio Dam Spillway Emergency Repairs Project Time and Materials Contract
7. Board Order