



# Santa Clara Valley Water District

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**File No.:** 17-0638

**Agenda Date:** 10/10/2017

**Item No.:** 3.3.

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## BOARD AGENDA MEMORANDUM

### **SUBJECT:**

Update of the Condition of the Coyote Percolation Dam (San Jose) (District 1) and Determination that the Condition of the Coyote Percolation Dam Continues to Constitute an Emergency.

### **RECOMMENDATION:**

Determine by a four-fifths vote that there is a need to continue the emergency action declared by the Board on August 22, 2017, pursuant to California Public Contract Code §22050, to repair the Coyote Percolation Dam.

### **SUMMARY:**

On August 22, 2017, the Board declared that the condition of the Coyote Percolation Dam constituted an emergency condition pursuant to California Public Contract Code §22050, and that District staff may repair such dam, take any directly related and immediate action required by that emergency, and procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts. The emergency condition continues to exist as the repairs to the Coyote Percolation Dam have not been completed.

The Coyote Percolation Dam (dam) is an in-channel dam located on Coyote Creek. Under normal operation, steel panels are secured to the concrete foundation; a concrete apron protects the downstream side of the dam. A concrete fish ladder allows fish migration when the dam is in place. A set of radial gates allows flow releases to manage the impoundment behind the dam. The dam is regulated by Division of the Safety of Dams (DSOD) and is inspected regularly for condition and operational safety.

The storm flows on February 21-22, 2017, damaged the dam facility severely, in particular the dam apron suffered a scour hole that may have extended below the foundation. The exact extent of the damage was unknown because visibility was restricted by the concrete apron and the material beneath the apron.

Under an emergency permit issued by the Army Corps of Engineers, (File No. 2017-00166S/NWP 5, issued March 17, 2017), actions were taken to temporarily buttress the facility along the downstream side of the apron. Stabilization work was not completed as flows did not recede, and the emergency permit expired on April 1, 2017. The dam site remained inundated until the end of May 2017. DSOD conducted a visual inspection on May 8, 2017, but was unable to

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see the damage due to high flows, and requested an additional inspection of the apron and dam foundation prior to reinstallation of the steel panels.

In June 2017, flows receded enough to allow staff to evaluate the condition of the dam. It was determined that the dam apron structure could not weather another winter of high flows in its current condition. In the event of high flows passing through the Coyote Percolation Dam site, there is high possibility that the concrete structure would fail, allowing concrete, boulders, large volumes of sediment and debris to be transported downstream. This could induce flooding, risk public health and property in the flood prone areas of Coyote Creek, such as the areas that flooded on February 21, 2017. Boulders and concrete chunks could also join with flood-carried tree trunks to form debris jams that would be very difficult to manage and could create significant channel blockage, bank erosion, and flood risk. Seismic restrictions imposed on Anderson Dam increase the likelihood and duration of reservoir releases in the coming months. The facility must be repaired before the seasonal rains to ensure the facility's integrity and protect the public from increased risk of flooding.

Work began at the site on August 26, 2017, with removal of the damaged concrete apron to expose the dam foundation. On August 28, 2017, District staff inspected the dam foundation and conveyed information to the Division of Safety of Dams (DSOD) for their consideration. Since the dam foundation was not impacted, DSOD allowed the repairs at the apron to proceed. The District issued a contract to continue repairs, and the contractor resumed work on September 5, 2017. Placement of base-rock for the new apron was completed on Friday, September 8, 2017. The new apron was completed on September 16, 2017. Restoration work downstream of the dam started on September 18, 2017 and will be underway through September 22, 2017. The target completion date for the project is October 15, 2017.

**FINANCIAL IMPACT:**

Staff estimates replacing the failed section of the Coyote Percolation Dam would cost between \$400,000 and \$600,000. Staff proposes funding the emergency repair from the Water Utility Small Capital Projects budget.

**CEQA:**

Repair and maintenance activities, including repair of the Coyote Percolation Dam, are covered by the Dam Maintenance Program and the Programmatic Environmental Impact Report (PEIR) that was certified and approved by the Board on March 13, 2012. Applicable regulatory agencies, including the US Army Corps of Engineers, California Department of Fish and Wildlife and the Regional Water Quality Control Board, have been notified of the emergency repairs; applications have been submitted to pursue an after-completion project permitting process. All work is being performed deploying the Valley Habitat Plan conditions and avoidance and minimization measures to prevent impacts to sensitive habitat in the project vicinity.

**ATTACHMENTS:**

None

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