



STAFF REPORT

Meeting Type: Board of Directors
Title: Nicasio Creek Hydrology Study Update
From: Paul Sellier, Director of Water Resources
Through: Ben Horenstein, General Manager
Meeting Date: September 15, 2026

PS *BH*

TYPE OF ITEM: Action X Information

RECOMMENDATION: Receive an update on the Nicasio Creek Hydrology Study

SUMMARY: The Nicasio Creek Hydrology Study was designed to identify measures that could be implemented to help alleviate or reduce localized flooding affecting the area above Nicasio Reservoir. The scope of the study was limited to understanding the potential effects of the Reservoir on upstream flooding and it does not seek to identify the origin of the sediment or potential measures that upstream property owners could take to reduce sediment transport or barriers to water movement downstream. Staff will provide a presentation on the development of the hydrologic model, data collection, and the effects of potential management actions on localized flooding.

DISCUSSION: In response to concerns raised by property owners upstream of Nicasio Reservoir, Environmental Science Associates (ESA), at the District's direction, developed a hydrologic model to understand existing conditions and to identify measures to help alleviate upstream flooding. The model allows the District to understand the approximate portion of Nicasio creek that is under the influence of the reservoir and how potential changes to vegetation, channel depth or width can impact flooding upstream of the reservoir. Under existing conditions, it is likely that the Nicasio Elementary School will experience flooding in rainfall conditions that are similar to the February 2025 storm – a 7-year recurrence event. A 7-year recurrence event has a 14.3% chance of occurring in any given year.

Broadly, the proposed work will occur in two areas – below and above the confluence with Halleck Creek. Below the confluence of Halleck and Nicasio Creeks widening, the channel, while adding some depth in the upper reaches of this area of work, will increase the capacity of the creek to move water into the reservoir. Above the confluence, the work focuses more on deepening the channel to increase capacity of the creek. Throughout the length of the creek, thinning of vegetation and removal of channel blockages from fallen trees are important.

In terms of implementation of the work, the thinning of vegetation and removal of channel blockages are scheduled for September – October 2026 as part of the Nicasio Creek Vegetation Management 2026

Project. The larger and more impactful channel widening and sediment removal work have become part of the Atmospheric River Capture Project (ARC). During the ARC scoping period, the District received comments seeking an evaluation of the impact ARC may have on Nicasio Creek and has therefore included the channel widening and sediment removal work (not the Nicasio Creek Vegetation Management 2026 Project work) as part of the ARC project. It is further expected that there will be an ongoing, periodic component of work to ensure that the creek capacity is maintained over time. As a result, the District will need to establish and monitor levels of vegetation and aggradation of sediment in the creek in order that further maintenance work may be initiated.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: The Nicasio Vegetation Management 2026 Project is estimated at \$483,000 and the channel widening and sediment removal work may cost significantly more between \$5M -\$10M.

ATTACHMENT(S): None