STAFF REPORT

Meeting Type:	Planning Committee/Board of Directors
Title:	Transmission Line Condition Assessment
From:	Alex Anaya, Director of Engineering
Through:	Shaun Horne, General Manager
Meeting Date:	November 10, 2026

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on the proposed Transmission Line Condition Assessment project

SUMMARY: The proposed Transmission Line Condition Assessment project will conduct electromagnetic inspection of approximately 2 miles of the Southern Marin Line and approximately 400 linear feet of the Phoenix outlet works. This inspection is intended to proactively identify damage, wall thinning, and areas requiring repair or replacement before leaks occur. District staff will make a recommendation for consideration of contract award at a future regularly scheduled Board of Directors meeting.

DISCUSSION: The Southern Marin Line was constructed in 1951 and conveys potable water from the Bon Tempe Treatment Plant to the Alto Tanks in Mill Valley. This 24" welded steel pipeline is critical to conveying water to several areas of the system including Mill Valley, Sausalito and Tiburon. Over the last several years, there has been an increased frequency of leaks along the Southern Marin Line, including two leaks in December 2024 and a leak in May 2025. Repairs to this transmission line are operationally complex and time-intensive, as the 24" line requires significant time to drain, all while maintaining uninterrupted water service to customers.

The 30" cast iron outlet pipe at Phoenix Dam was installed in the early 1900s and is suspected to be in need of repairs. A CCTV inspection of this pipeline was performed in 2026, but the water was too turbid to meaningfully interpret the results of this inspection. This pipeline, in conjunction with the spillway, is critical to dam safety and lake level control.

The proposed project includes the electromagnetic inspection of approximately 2 miles of the Southern Marin Line between Crown Road and the H-Line Booster Station near Kentfield, as well as the Phoenix outlet pipe. Staff propose using Xylem's PipeDiver to conduct this inspection. The PipeDiver is a proprietary technology that uses electromagnetics to identify localized areas of pipe wall loss.

This type of inspection is expected to identify areas with compromised wall thickness that may not be detected in a CCTV inspection. Using the results of this inspection, staff expect to be able to proactively repair or replace smaller sections of the Southern Marin Line, targeting areas with compromised wall thickness, without needing to conduct a full replacement of the pipeline. The cost for the condition assessment is anticipated to be between $300,000-$500,000.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: The total cost to complete this pipeline inspection work is estimated to be between $300,000-$500,000, inclusive of District labor, inspection, and analysis and contingencies. Funding for this project is included in the Adopted FY26/FY27 Capital Improvement Budget.

ATTACHMENT(S): None.