A REGIONAL WATER AGENCY
SINCE 1954

SPECIAL MEETING OF THE BOARD OF DIRECTORS

TUESDAY, MAY 2, 2023 – 3:15 P.M.

PUBLIC PARTICIPATION

Public participation is welcome and encouraged. You may participate in the May 2, 2023, meeting of the San Bernardino Valley Municipal Water District online and by telephone as follows:

Dial-in Info: (877) 853 5247 US Toll-free

Meeting ID: 684 456 030

PASSCODE: 3802020

https://sbvmwd.zoom.us/j/684456030

If you are unable to participate online or by telephone, you may also submit your comments and questions in writing for the District's consideration by sending them to comments@sbvmwd.com with the subject line "Public Comment Item #" (insert the agenda item number relevant to your comment) or "Public Comment Non-Agenda Item". Submit your written comments by 6:00 p.m. on Monday, May 1, 2023. All public comments will be provided to the President and may be read into the record or compiled as part of the record.

IMPORTANT PRIVACY NOTE: Participation in the meeting via the Zoom app is strongly encouraged. Online participants MUST log in with a Zoom account. The Zoom app is a free download.
Please keep in mind: (1) This is a public meeting; as such, the virtual meeting information is published on the World Wide Web and available to everyone. (2) Should you participate remotely via telephone, your telephone number will be your "identifier" during the meeting and available to all meeting participants; there is no way to protect your privacy if you elect to call in to the meeting.

A REGIONAL WATER AGENCY
SINCE 1954

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
380 E. Vanderbilt Way, San Bernardino, CA 92408

SPECIAL MEETING OF THE BOARD OF DIRECTORS

AGENDA

3:15 PM Tuesday, May 2, 2023

CALL TO ORDER/PLEDGE OF ALLEGIANCE/ROLL CALL

1) PUBLIC COMMENT
Members of the public may address the Board regarding any item within the subject matter jurisdiction of the Board; however, no action may be taken on off-agenda items except as authorized by law. Each speaker is limited to a maximum of three (3) minutes.

2) DISCUSSION AND POSSIBLE ACTION ITEMS

2.1 Consider Consulting Services Agreement with Xylem, Environmental Site Assessment, and Addendum No.2 with NLine Energy in Support of Southern California Edison Hydroelectric Facility Divestiture Project
Staff Memo - Consider Consulting Services Agreement with Xylem, Environmental Site Assessment, and Addendum No.2 with NLine Energy in Support of Southern California Edison Hydroelectric Facility Divestiture Project
Scope of work and Proposal by Xylem
Addendum No.2 with NLine Energy

3) FUTURE BUSINESS

4) ANNOUNCEMENTS

5) CLOSED SESSION

6) ADJOURNMENT

PLEASE NOTE:
Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection in the District's office located at 380 E. Vanderbilt Way, San Bernardino, during normal business hours. Also, such documents are available on the District's website at www.sbvmwd.com subject to staff's ability to post the documents before the meeting. The District recognizes its obligation to provide equal access to those individuals with disabilities. Please contact Melissa Zoba at (909) 387-9228 two working days prior to the meeting with any special requests for reasonable accommodation.

SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

DATE: May 2, 2023

TO: Board of Directors' Special Meeting

FROM: Wen Huang, Chief Operating Officer/Assistant General Manager
Leo Ferrando, Assistant Chief Engineer

SUBJECT: Consider Consulting Services Agreement with Xylem, Environmental Site Assessment, and Addendum No.2 with NLine Energy in Support of Southern California Edison Hydroelectric Facility Divestiture Project

Staff Recommendations:

Staff recommends the Board of Directors (BOD) consider the following actions:

1. Approve Consulting Services Agreement with Xylem for a not-to-exceed amount of $1,782,173 for the due diligence inspections associated with the seven (7) Southern California Edison (SCE) hydroelectric facilities;
2. Authorize a non-invasive environmental site assessment for each facility up to a budgetary total amount of $25,000;
3. Approve Addendum No.2 with NLine Energy for Technical Services in Support of SCE Hydroelectric Facility Divestiture Project for a not-to-exceed amount of $50,000; and
4. Authorize staff to work with District Counsel to draft necessary cost-share agreements and CEO/General Manager to execute such agreements.

Summary:

In order to assess the current condition of the hydroelectric facilities, staff is recommending that the BOD authorize the CEO/General Manager to execute a Consulting Services Agreement with Xylem for a not-to-exceed amount of $1,782,173 to perform the confirmatory due diligence inspections associated with the seven (7) East-End SCE hydroelectric facilities. The $1,782,173 amount includes a 15% contingency amount of $199,990.

Additionally, Staff is requesting authorization of Amendment No.2 to NLine Energy's contract for a not-to-exceed amount of $50,000 to provide 250 hours. This time is required to assist the District and the participating agencies in conducting due diligence activities and technical advisory services regarding the negotiations for SCE's East End Hydropower facilities. This cost would be split 5 ways with the Consortium members, making our cost $10,000.

Staff also recommends that the BOD approve a budgetary amount of up to $25,000 for the non-invasive environmental site assessment for each facility site.

Background:

On May 19, 2020, the BOD approved a Technical Support Services with NLine Energy for the East End Hydropower Plant Divestiture by SCE and direct Staff to work with several local water agencies (collectively, "Water Consortium") to evaluate potential acquisitions of seven (7) East-End facilities. The discussions and negotiations with SCE are underway. In order to assess the current condition of the facilities, staff have been working with potential consultants to explore the possibilities for performing the due diligence inspections.

After several technical meetings and discussions of the work involved in this effort, staff concluded that Xylem is the most qualified and efficient company to perform the work, given the schedule constraints. Xylem is proposing to use state-of-the-art technologies to conduct in-line inspections and investigate significant leaks, wall loss defects, and air pockets within the facilities, including pipelines, penstocks, intake structures, and forebays. In addition to inspecting the conveyance facilities, Staff also recommends that the Board consider approving a budgetary amount of up to $25,000 for the required non-invasive environmental site assessment for each facility site. Staff is still deciding on the best consultant to conduct this work.

Amendment No.2 to NLine Energy's consulting services contract is for a not-to-exceed $50,000 for 250 hours to account for the time required to conduct diligence activities for the transfer of SCE's East End Hydropower projects. The contract amount total to date would be a not-to-exceed amount of $233,750 with this amendment.

The Consortium requested Valley District continue taking the lead on contracting NLine Energy on behalf of the Consortium. Similar to the previous arrangements, NLine's proposed fee of $50,000 will be shared equally among the five (5) Consortium agencies, or $10,000 each.

Strategic Plan Application:

These efforts demonstrate our Agency's mission, vision, values, and strategies by working collaboratively with other water agencies to provide a solution that meets the region's needs for water supply reliability.

Fiscal Impact:

The fiscal impact of these contracts totals $1,857,173. Of the $50,000 scope with NLine Energy, $40,000 will be invoiced and reimbursed immediately by the Consortium partners. There are funds available under the approved FY2022/23 General Fund Line Item 6360, Consultants to start the abovementioned work. The remaining will be included in the FY 2023/24 General Fund Budget for consideration by the Board during an upcoming Budget Workshop.

Attachments:

1. Scope of work and Proposal by Xylem
2. Addendum No.2 with NLine Energy

xylem
Let's Solve Water

Mill Creek, Ontario and SAR Inspection

San Bernardino Valley MWD

SmartBall® & PipeDiver®

April 27, 2023

Prepared for

San Bernardino Valley MWD

Attn: Leonardo Ferrando, PE, PMP

pure TECHNOLOGIES
a xylem brand

Dear Leo,

Pure Technologies U.S. Inc., a Xylem brand, is pleased to offer our services to San Bernardino Valley Municipal Water District (SBVMWD) for inspection, leak detection, and mapping of the Mill Creek, Ontario, Sierra, and Santa Ana flow lines using our PipeDiver and SmartBall platforms. The project scope includes inspection of the steel siphons and penstocks along the Mill Creek, Ontario, and Santa Ana flowlines. Video of the entire flow line will also be optionally provided although may be impacted due to water clarity. We propose using the PipeDiver free-swimming electromagnetic inspection platform to identify individual pipes cylinder defects (wall loss). Our SmartBall® free-swimming inspection platform inspects transmission mains while they are in service, detects acoustic activity associated with leaks and pockets of trapped air and can leverage motion data to map transmission mains.

Given the quick turnaround timeline of this project and operational complexity Pure Technologies will require a team approach with SGVMWD to complete this work in the given timeline. Please review the client expectations section, pricing details and assumptions, Appendix A, and Appendix B, closely to ensure that these requirements can be met in an expedited manner. Even with a high level of support from SGVMWD this is an atypical and aggressive project schedule. Although we anticipate success, site conditions may impact our teams ability to inspect the proposed scope or obtain high quality data.

The PipeDiver platform has been successfully used to inspect and inform the management of over 1,500 miles of transmission mains around the world. Through this experience, we have identified key success factors for free-swimming inspections to minimize risk and disruption to transmission main operations. Highly trained and experienced technicians will work closely with your operations personnel to understand and mitigate inspection risks during project planning and execution. The SmartBall platform has been deployed for more than 15 years to successfully inspect over 7,500 miles and report over 3,300 leaks.

Pure Technologies is a recognized industry leader in the inspection, assessment, and management of pressurized water and wastewater transmission mains. We continually strive to set the industry standard with the most trusted, technologically advanced tools operated by our highly experienced team.

We look forward to addressing any questions you may have and helping you solve your water challenges.

Christopher Aronitz, PE, PMP
Business Development Manager
Xylem
619-514-9140
Christopher.Aronitz@Xylem.com

In-Service Steel Pipe Inspection & Leak Detection

The best way to proactively manage any transmission main is to better understand its health using proven condition assessment solutions combined with advanced analysis.

A comprehensive condition assessment of a steel water transmission main involves deploying inspection tools to accurately assess the health of the buried infrastructure along with advanced engineering analysis to provide a clearer understanding of risks that inform short- and long-term repair and replacement strategies.

We propose a comprehensive condition assessment initiative for SBVMWD comprising four phases:

1. Leak and air pocket detection helps determine a pipe's baseline condition. Pure Technologies' free-swimming SmartBall® platform uses acoustic technology to accurately locate leaks and air pockets and operates while the transmission main is in service.
2. Inline wall inspection identifies and locate cylinder defects to provide a critical baseline for pipe degradation. The PipeDiver® platform is a free-swimming condition assessment tool that is easy to deploy and operates while the transmission main remains in service.
3. Inspect the functionality of the CP system where applicable and provide recommendations for repair if required. If pipes are electrically continuous map pipeline and determine the alignment and depth of cover as well as detect coating anomalies.
4. Verify the functionality and document the condition of any valves

Leak and Air Pocket Detection

The first phase of the condition assessment is an initial survey for leaks and air pockets using the SmartBall platform. This inspection will identify potential leaks and air pockets as a preliminary indicator of transmission main condition.

The SmartBall inspection platform is a free-swimming, nondestructive inline inspection technology that detects acoustic activity associated with leaks and pockets of trapped air in pressurized transmission mains. Optionally, SmartBall can map the transmission main using the motion data of the tool along with field-collected GPS data.

The SmartBall tool is typically inserted through a valve into an active line. Once deployed, the tool is propelled by the hydraulic flow and can navigate inline valves, 90-degree bends, tees, diameter changes, profile changes, and vertical risers. It is typically extracted by inserting an expandable retrieval net through a pressurized stack attached to a 4-inch full-bore flanged valve.

The SmartBall tool is continuously tracked during an inspection using proprietary tracking devices synchronized with the tool and tracking sensors installed along the transmission main prior to deployment.

The collected data is evaluated by experienced data analysts using proprietary software and methods to report the location of leaks and air pockets, as well as provide a qualitative estimate of leak magnitudes to help prioritize further investigation and repair activities. When mapping of the transmission main is included in the project scope, advanced location algorithms are used to

evaluate motion data recorded by the SmartBall tool in combination with field-collected GPS data to determine the alignment of the transmission main.

An overview of the SmartBall platform inspection process is shown in Figure 1. Further details of the SmartBall technology can be found in the data sheets included in this proposal.

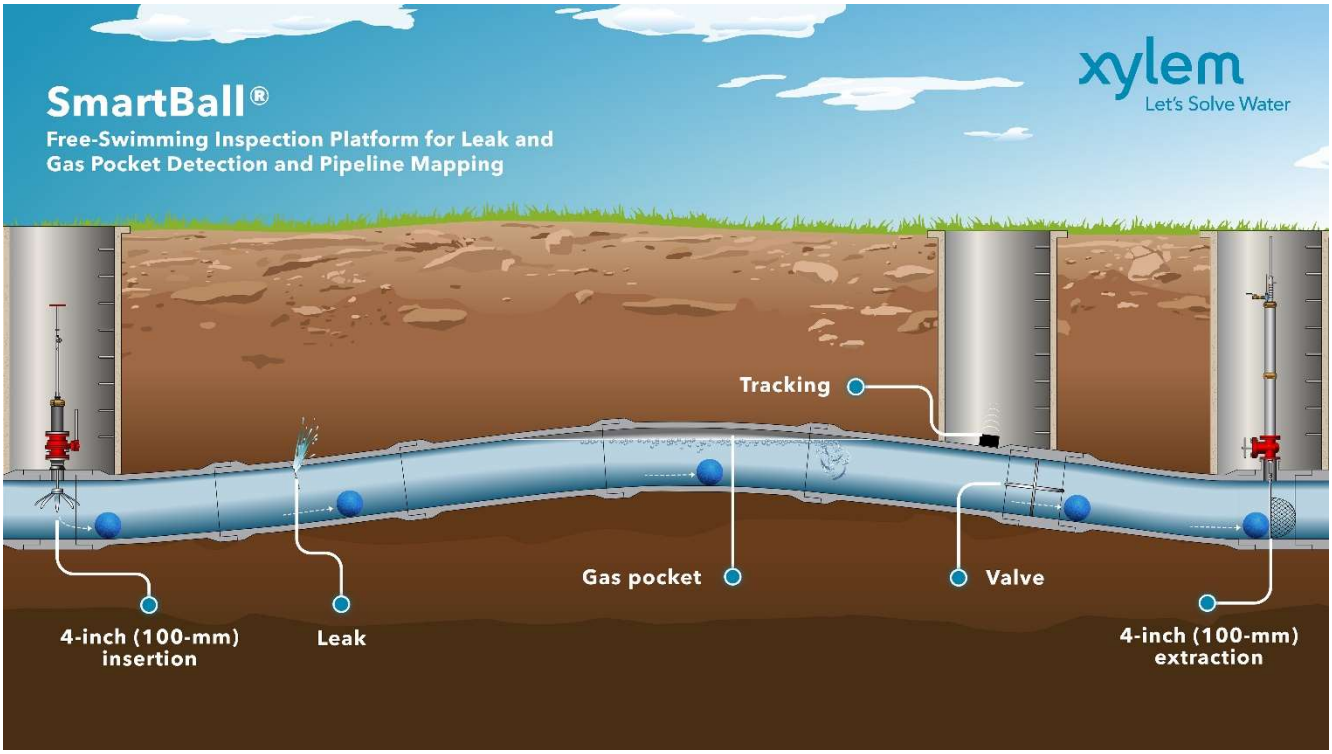

Figure 1: SmartBall Inspection Overview

Inline Wall Inspection

After completing the inline leak and air pocket survey, the transmission main will be inspected with the PipeDiver platform to identify cylinder defects.

The PipeDiver platform provides accurate, detailed pipe wall condition data to inform proactive management decisions. In a 24-inch to 36in-inch pipe with a cylinder wall thickness of 0.5-inches or less and inner mortar lining of 0.5-inches or less an area of corrosion measuring 3-inches by 3-inches by 30% wall loss is the reporting threshold for wall loss. Dig sheets are provided alongside the final PipeDiver report to help SBVMWD accurately locate any pipe in question.

The PipeDiver platform is flexible, offering a number of insertion and extraction options to meet various operational requirements. While the tool can be inserted into a live transmission main under pressure, it is more commonly inserted through a depressurized appurtenance. Extraction options also vary and include nets or grates to stop the tool. The tool can be extracted through a depressurized appurtenance or retrieved at a reservoir, chamber, or tank.

As the platform travels through the transmission main, field crews track the tool from above ground at regular intervals. The PipeDiver platform's flexible design allows it to navigate valves and bends in the transmission main. The tool can also travel long distances in a single deployment.

An overview of the PipeDiver platform inspection process is shown in Figure 2.

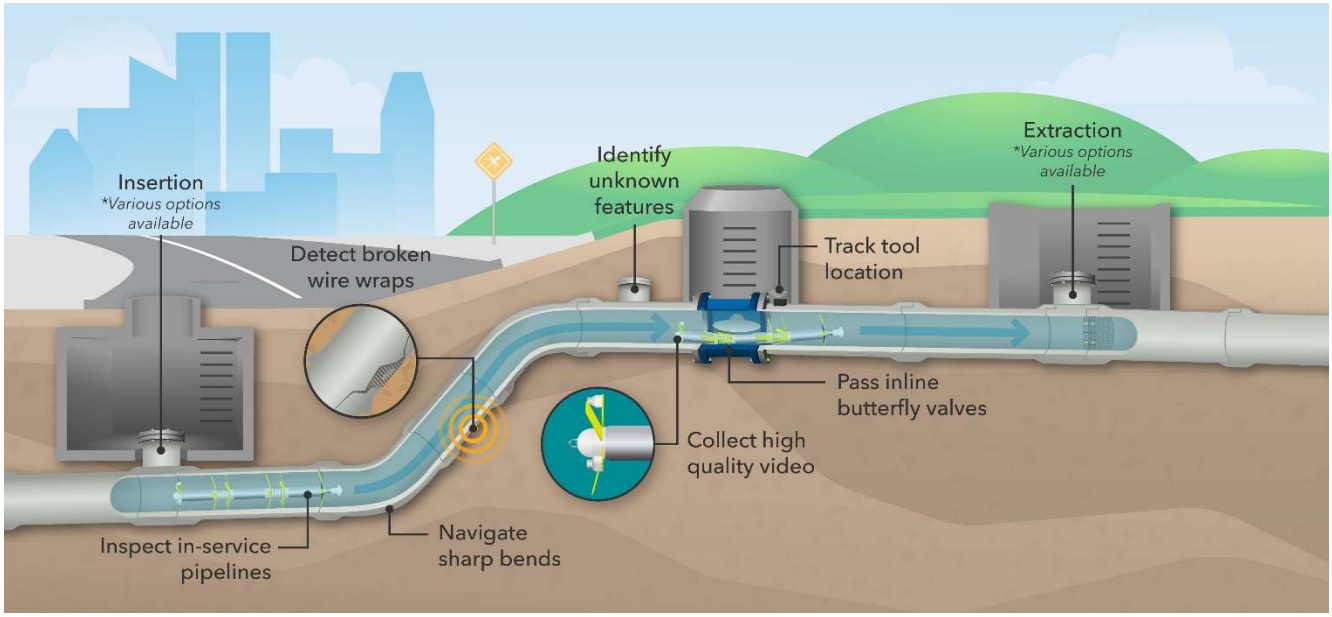

Figure 2: PipeDiver Inspection Overview

Cathodic Protection System Inspection

The CP Assessment will involve assessing the health and operational state of all system components (anodes, rectifiers, test stations, pipeline electrical continuity, etc) at each of the CP system locations. This includes identifying the need for repair, rehabilitation or replacement of the designated systems to ensure system functionality and reliability. Minor repairs such as fuse replacement will be performed while significant issues will be documented for future action.

In addition to observing the health of the CP system a DC stray current evaluation, ACVG or ACVG survey, and mapping survey (including depth of cover) will be performed where possible. Data loggers will be set to monitor structure-to-earth potentials along the water main. This may need to be done during a separate mobilization based on the operational state of the CP system. Additional time may also be required to coordinate with other utilities as needed.

Findings from the assessment phase will be compared to historical records. Based on what is found during the field inspection it will be determine if protection can be restored using the existing cathodic protection system's capacity or if additional repairs or modifications to the system are required.

A report will be provided outlining the current state of the CP system as well as recommendations for all CP remedial work or new installations. This report will include a list of all required materials, resources and associated costs. All CP assessment, coating assessment, and mapping work will be completed by NACE certified technicians.

Valve Assessment

Pure Technologies will assess and operate any accessible valves to ensure that they are in good condition and functional. The valve inspection process is generally as follows:

- Pure Technologies will execute a visual inspection of the valves. Pure Technologies will document any visual discrepancies items of note from the visual inspection.

- Pure Technologies with then operate the a valve fully exercising it and performing minor work order repairs while making numerous observations about the condition, operability and functionality of each asset. Observations are to be meticulously documented electronically while linking them directly to earth coordinates via GPS. Due to the potential condition or deterioration of assets that may or may not have been maintained, Pure Technologies will not be held liable for any assets that fail or break or the consequences of such failures during the operating procedures due to pre-existing conditions.

- Pure Technologies will exercise each valve a minimum of two full cycles and operations and exercising will continue until operating torque stabilizes without measurable decreases and valve turn count stabilized without measurable increases. Exercise is defined as a full cycle, from open to shut to open again. All valves will be exercised at the lowest operational torque. More explicitly, torque will be reduced immediately following initial movement of the valve to the lowest foot-pound required to continue moving the valve.

- Pure Technologies will document the state of the valve and provide the following:

    - Physical data
        - Asset ID number, map number, valve size, type of valve, use of valve, valve structure, depth of valve, if clean out was necessary, valve discrepancies (categories and details), box/vault discrepancies (categories and details), document leak sounds and additional physical information as necessary
    - Location data
        - GPS position and coordinate data items as noted above
    - Operational data
        - Turns to fully close, torque, close direction, torque chart for larger valves or valves that are initially difficult to turn (if possible), specific operational discrepancies (categories and details), additional operational comments as necessary.

- Discrepancies
  - Detail on discrepancies.

Project Milestones and Deliverables

Planning and Mobilization

The planning process is an integral part of the project. Gathering more detailed transmission main information during the planning process facilitates a more successful inspection. Pure Technologies will meet with the SBVMWD to perform a site visit to assess access to the project site and identify site or pipe features that could pose a challenge during the inspection. Steps are then put into place to mitigate any potential risk. Based on information gathered and the preliminary site visit, the team drafts a detailed Project Planning Document that outlines the inspection plan, including insertion and extraction procedures and tracking sensor locations. The Project Planning Document will be submitted to SBVMWD prior to starting the work. Changes in scope that arise from the planning process that impact pricing outlined in this proposal will be discussed with SBVMWD and mutually agreed upon before proceeding.

Civil work may be required for successful insertion and/or extraction of the PipeDiver or SmartBall tool and will be identified during the detailed planning process. Civil work may include, but is not necessarily limited to, transmission main fitting modifications, excavation, tapping, shoring, and/or any other activity necessary to access valves and appurtenances identified as critical to the inspection. It is expected that SBVMWD or another party will complete this work.

During the site visit, GPS location data will be collected for all Control Points and Reference Points. Chambers and vaults must be opened to ensure that the GPS points can be recorded above the actual transmission main feature or to add an offset to the GPS points. This data collection effort is expected to take an additional one to two days onsite.

Activities undertaken as part of the planning and mobilization process include, but are not necessarily limited to:

Project document review

Preliminary site visit and review

Evaluation of the need for alternative methods for insertion and extraction, such as utilizing pressurized insertion and extraction tubes for PipeDiver or a hydrant insertion for a SmartBall

Pre-inspection coordination/meetings

Planning document development

Equipment and staffing logistics to and from the project sites

Tool preparation

Pre-inspection activities required in advance of the scheduled inspection date

Planning and Mobilization Deliverables

1. Project Planning Document that outlines the inspection plan, including insertion and extraction procedures and tracking sensor locations.

Leak & Air Pocket Detection & Mapping

Tracking sensor installation will occur for both the PipeDiver and SmartBall tools in the days prior to inspection. While not anticipated for this project (see Appendix A and C) it is expected that SBVMWD's contractor will assist in any installations that require soft digs or pavement coring to access the transmission main and will provide appropriate traffic control during tracking installations, if required, as outlined in the Project Planning Document.

Figure 3

Leak locations are determined using data recorded by the sensors onboard the SmartBall tool as well as that recorded by the tracking devices. This data is also used to determine if a leak is occurring on a pipe joint or barrel. Leaks occurring on the barrel of a pipe may indicate the pipe has been structurally weakened and is in danger of failing. Experience has shown our analysis methods are accurate to within approximately ±6 feet.

Immediately preceding the deployment of the SmartBall tool, Pure Technologies personnel will measure the flow speed, flow direction, and transmission main operating pressure to verify the conditions in the transmission main. Several tracking teams will be assigned to monitor the tool's movement through the transmission main. If required, SBVMWD's contractor will provide traffic control during the inspection at each tracking sensor location. Coordination with operations staff will be required throughout the duration of the inspection, particularly for activities such as valve operation, pump management, etc. These activities will be outlined in the Project Planning Document. Upon completion of the inspection, data will be downloaded from the SmartBall and shared with the Pure Technologies analysis team.

Prior to demobilizing from the inspection, the Pure Technologies team will review data recorded by the SmartBall tool and investigate suspected medium and large leaks identified during the inspection. The results from this analysis will be communicated directly to SBVMWD through email, phone, or in-person. To investigate, personnel will travel to the location of the suspected leak to look for obvious signs of leakage, listen with a ground microphone, investigate nearby transmission main features and manholes, and will record additional GPS points used to improve the final reported location of the leak that will be delivered in the draft report.

The Pure Technologies analysis team will analyze the data collected by the SmartBall platform to document details of acoustic events including acoustic intensity plots and tracking details. A dig sheet will be developed for each leak to aid in location and excavation. Dig sheets include an aerial

view of the transmission main alignment and detail a leak location based on the distance from the leak to the nearest upstream and downstream transmission main features.

Leak & Air Pocket Detection Deliverables

1. Immediate notification of suspected medium and large leaks, if needed
2. Draft Inspection Report including:
    - Project background and inspection details
    - Details of acoustic events including acoustic intensity plots and tracking details
    - A table of results identifying locations of acoustic events (e.g., leaks and/or air pockets)
3. Final Inspection Report incorporating comments from SBVMWD including.
    - Dig sheets to aid in locating and excavating reported leaks, including an aerial view of the transmission main alignment and detail of each leak location

Inline Wall Inspection

PipeDiver tracking sensor installation may take one to two days for complete installation, depending on sensor locations and accessibility. While not anticipated for this project (see Appendix A and D) it is expected that SBVMWD's contractor will assist in any installations that require soft digs or pavement coring to access the transmission main and will provide appropriate traffic control during tracking installations, if required, as outlined in the Project Planning Document.

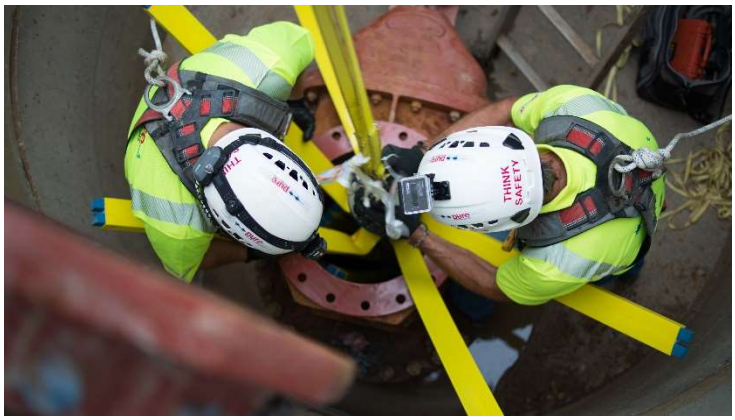

Figure 4: PipeDiver Insertion

Several tracking teams will be assigned to monitor the tool's movement through the transmission main. If required, SBVMWD's contractor will provide traffic control during the inspection at each tracking sensor location. Coordination with operations staff will be required throughout the duration of the inspection, particularly for activities such as valve operation, pump management, etc. These activities will be outlined in the Project Planning Document.

After completing the inspection, data will be downloaded from the PipeDiver and shared with the EM data analysis team to identify, quantify, and locate areas of bar breaks and cylinder defects. Quantifying electromagnetic results depends on a number of variables including accuracy of transmission main specifications, calibration data, repairs, presence of nearby electromagnetic fields, shorting straps, and the number and complexity of bar break regions.

Once the draft Inspection Report is developed, the team will conduct a follow-up site visit to assist in identifying and locating specific pipes of concern.

The PipeDiver platform can be equipped with fixed CCTV cameras on the rear petals of the device, to capture and record video of the illuminated pipe wall. Although real time viewing is not available, a copy of the video file with points of interest flagged can be submitted as part of the final report. Video quality is dependent on several factors related to the operating conditions of the inspected transmission main.

Base Inline Wall Inspection Deliverables

4. Preliminary Results Document:
    - Table with large pipe wall defects identified and located to within 3 pipe sticks.
    - Medium defects may be identified but not guaranteed.
5. Draft Inspection Report including:
    - Project background and inspection details
    - Details of electromagnetic results including the location and size of cylinder wall loss identified through the inspection
    - Up to five dig sheets to aid in locating and excavating reported pipes.
6. Geodatabase including a pipe-by-pipe representation of the transmission main, including basic pipe attributes (stationing, material, diameter, etc.) as well as PipeDiver platform inspections results mirroring the results of the inspection.
7. Final Inspection Report incorporating comments from SBVMWD.

SBVMWD Responsibilities

It is expected that the activities listed below will be completed by SBVMWD or SBVMWD's contractor. Requirements will be determined in more detail during the inspection planning process.

- Provide information about the transmission main prior to the inspection date including, but not limited to, plan and profile drawings, lay sheets, shop drawings, manufacturing details, and details of access structures and appurtenances – if available.
- Obtain any required legal right-of-entry on the property.
- Provide support personnel during the inspection for locating the access structures, traffic control, valve operation, pump operation, and other support as necessary.
- Provide Pure Technologies with the typical flow velocities and pressures for transmission main operation, and the expected minimum and maximum values for each. If this data is unavailable, Pure Technologies would like the opportunity to verify flow velocities recommended prior to performing the inspection.
- Provide and maintain safe and reasonable access to all work sites throughout the inspection and obtain permits as required.

- Provide transportation for tools or equipment to insertion/extraction and tracking locations that cannot be access by vehicle.
- Prepare and/or modify existing transmission main fittings and structures as indicated by Pure Technologies to accommodate insertion and extraction of the equipment as outlined in the Planning Document. This includes tapping the pipe where necessary.
- Render confined space areas safe for the services, including lockout/tagout of pumps, valves and motors; dewatering chambers and vaults to permit movement of persons and equipment; and vector and rodent control as necessary.
- Excavate, dewater, shore up, and/or provide scaffolding of job area and other civil activity as necessary in compliance with OSHA and local standards and regulations.
- Operate the transmission main in a manner that will achieve the minimum required flow velocity or approximate head pressure as indicated in the Planning Document throughout the inspection. See Appendix C or E for flow requirements.
- Provide lifting support via crane, backhoe or similar if required for equipment insertion and extraction.

Project Schedule

A typical schedule for this project is shown below.

Leak & Air Pocket Detection	
Task	Timing
Site visit	Within 1 week of notice to proceed (NTP)
Project Planning Document	Within 1.5 weeks of NTP
Field Inspection	Within 2 weeks of NTP
Leak investigation prior to demobilization	24 hours after completion of inspection
Draft Report • Leak and air pocket detection only	3 weeks following inspection
Final Report and Geodatabase	2 weeks after receipt of comments on Draft Report
Inline Wall Inspection	
Task	Timing
Site visit	Within 1 week of notice to proceed (NTP)
Project Planning Document	Within 1.5 weeks of NTP
Field Inspection	Within 2 weeks of NTP
Preliminary Results Document	3 weeks following inspection
Draft Report	12 weeks following inspection
Final Report	2 weeks after receipt of comments on Draft Report
CP Inspection	
Task	Timing
Site visit	Within 1 week of notice to proceed (NTP)
Project Planning Document	Within 1.5 weeks of NTP
Field Inspection	Within 2 weeks of NTP
Draft Report	3 weeks following inspection
Final Report	2 weeks after receipt of comments on Draft Report
Valve Inspection	
Task	Timing
Site visit	Within 1 week of notice to proceed (NTP)
Project Planning Document	Within 1.5 weeks of NTP
Field Inspection	Within 2 weeks of NTP
Draft Report	3 weeks following inspection
Final Report	2 weeks after receipt of comments on Draft Report

Project Pricing

Estimated Project Pricing (Time&Material – Not-To-Exceed)

Pure Technologies Project Pricing	
Activity and Tasks	**Estimated Task Price**
Inline Inspection (SmartBall and PipeDiver) – Table 2 Rates	
Project Planning and Mobilization	$60,070
Inspection	$1,255,549
Data analysis and Reporting	$180,419
Confined Space Rescue	$41,735
CP Assessment – Table 3 Rates	
Project Planning and Mobilization	$8,000
CP Inspection	15,000
Report	$5,000
Valve Assessment – Table 4 Rates[1]	
Project Planning and Mobilization	$2,000
Valve Inspection	$12,500
Report and GIS Deliverable	$2,000
Total	$1,582,273
Contingency (15%)	$199,900
Not-To-Exceed Amount	$1,782,173

[1]The valve team is very busy this time of year and may not be available for this work. Pure Technologies will make every effort to accommodate this project but it may not be possible given current commitments.

All work will be invoiced based on the rates below and the activity involved:

Inspection Service Rates – Inline Inspection (SmartBall and PipeDiver)

Table 2: Pure Technologies Inline Inspection Rate Sheet		
Description	**Unit**	**Unit Price**
Personnel		
Condition Assessment Engineer	Per Hour	$232.00
Field Manager	Per Hour	$210.00
Project Manager	Per Hour	$220.00
Senior Project Manager	Per Hour	$308.00
Project Engineer	Per Hour	$176.00
Data Analyst	Per Hour	$176.00
Field Technician	Per Hour	$176.00
GIS Analyst	Per Hour	$188.00
GIS Analyst - Remote	Per Hour	$60.00
Admin	Per Hour	$100.00
Equipment		
PipeDiver (including support equipment)	Per Day	$19,947.31
PipeDiver Tubes	Per Day	$25,437.69
PipeWalker (including support equipment)	Per Day	$5,539.85
Sahara (including support equipment)	Per Day	$9,925.46
SmartBall (including support equipment)	Per Day	$4,451.54
Robotics (including support equipment)	Per Day	$21,670.31
Vehicle		
Auto Rental	Cost +15%	
Auto-Gas & Oil	Cost +15%	
Vehicle Day	Per Day	$75.00
Vehicle Road Charge	Per Mile	$1.00
Expenses		
Per Diem	Per Day	$64
Lodging	Per Day	$150
Project Expenses (including shipping equipment)	Cost +15%	

Inspection Service Rates – CP Assessment

Table 3: Pure Technologies CP and XLI Inspection Rate Sheet		
Description	**Unit**	**Rate**
Personnel		
Assistant Technician	Hourly	$75.00
Field Technician	Hourly	$100.00
Senior Field Technician	Hourly	$110.00
Data Analyst	`Hourly	$100.00
Senior Data Analyst	Hourly	$105.00
Engineer	Hourly	$175.00
Senior Engineer	Hourly	$205.00
Project Manager	Hourly	$120.00
Remote Tracking	4-Hour Shift	$520.00
Vehicle		
Auto Rental	Cost +15%	
Auto-Gas & Oil	Cost +15%	
Vehicle Day	Days	$75.00
Vehicle Road Charge	Mi	$1.00
Equipment		
Spectrum XLI Mapping/Doc System	Days	$145.00
Spectrum XLI Mapping/CIS/DOC System	Days	$200.00
Spectrum XLI Coating/Comprehensive System	Days	$310.00
Spectrum XLI RTK GPS	Days	$650.00
CP Interrupter	Days	$45.00
ATV	Days	$225.00
UTV	Days	$320.00
Non-metallic boat w/motor	Days	$225.00
Trailer	Days	$200.00
Communication Charge	Days	$60.00
Armadillo AGM	Days	$25-$85*
Expense		
Per Diem	Days	$64.00
Lodging	Days	$150.00
Project Expenses	Cost +15%	

Inspection Service Rates – Valve Assessment

Table 4: Pure Technologies Inspection Rate Sheet		
Description	**Unit**	**Unit Price**
Personnel		
Condition Assessment Engineer	Per Hour	$157
Field Manager	Per Hour	$157
Project Manager	Per Hour	$196
Senior Project Manager	Per Hour	$275
Project Engineer	Per Hour	$157
Data Analyst	Per Hour	$157
Field Technician	Per Hour	$157
GIS Analyst	Per Hour	$168
GIS Analyst - Remote	Per Hour	$54
Admin	Per Hour	$89
Equipment		
Valve Turning Equipment (electric turner)	Per Day	$185
Vehicle		
Auto Rental	Cost +15%	
Auto-Gas & Oil	Cost +15%	
Valve Turning Truck	Per Day	$710
Vehicle Road Charge	Per Mile	$1.00
Expenses		
Per Diem	Per Day	$64
Lodging	Per Day	$150
Project Expenses (including shipping equipment)	Cost +15%	

Price Details and Assumptions

- Pricing is based on available information provided to date.
- If the project is cancelled or rescheduled all work performed up to that point will be invoiced per the rates in project pricing above.
- Stand-by will be charged based on the rates above once the equipment and personnel have been mobilized to site (the general project area – inspection team is not local). This includes any equipment rental fees, per diem, lodging, and project expenses.
- Pricing does not include traffic control, civil works, or permitting. These tasks are the responsibility of SBVMWD unless otherwise agreed.
- Suitable access points for insertion and extraction of the inspection tool are the responsibility of SBVMWD.
- Additional support to access insertion and extraction points where vehicle access is not possible will be the responsibility of SBVMWD.

Payment Schedule

Table 3: Payment Schedule

Service	Invoicing Period
Project Planning and Mobilization	Upon submittal of the Project Planning Document and completion of Mobilization
Inspection	Upon completion of the Inspection
Project Reporting	Upon submittal of the Final Report

ADDENDUM NO. 2 TO
CONSULTING SERVICES AGREEMENT

This Addendum No. 2 to Consulting Services Agreement ("Addendum") is made and entered into as of May 3, 2023, by and between San Bernardino Valley Municipal Water District ("District") and NLine Energy, ("Consultant") identified in the introductory paragraph of the Consulting Services Agreement, dated May 19, 2020 (the "Agreement"). District and Consultant are collectively referred to herein as "Parties" and individually referred to as "Party."

JOB NAME: **Technical Service in Support of Southern California Edison Hydroelectric Project Divestiture**

JOB NUMBER: **1443**

Pursuant to Section 3 of the Agreement, this Addendum provides for the provisions of Additional Services by Consultant, upon the following terms:

1. General Description of Additional Services. In addition to providing the Services described in the Agreement, Consultant agrees to provide such additional professional services consisting of the services and work described below and/or, if the box below is checked, such services more fully described in Attachment A to this Addendum, which is incorporated by this reference:

   Addition of 250 hours to Tasks 3, 4, and 5 of the Scope of Services to account for the additional time required to conduct additional diligence activities leading as part of negotiating an Asset Purchase Agreement for the transfer of SCE's East End Hydropower projects.

   ☑Checked the box if the Additional Services are described in Attachment "A"

All Additional Services provided under this Addendum shall be performed in a manner consistent with current industry standards by individuals who possess the proper skill and knowledge necessary to effectively complete the Additional Services. The performance of all Services and obligations hereunder shall be made in accordance with all federal, state and local laws, rules, regulations or ordinances applicable to the Services or obligations provided.

2. Costs of Additional Services. Compensation to be paid to Consultant for providing the Additional Services, which includes all travel, lodging, sub-consultants, and miscellaneous expenses ("Additional Compensation"), shall not exceed Fifty thousand dollars. ($50,000) ("Additional Maximum Fee"). The updated total contract amount is two hundred thirty-three thousand seven hundred fifty dollars ($233,750). The payment of the Compensation shall be made in accordance with the invoicing requirements set forth in Section 4.2 of the Agreement.

3. Schedule for Completion. The Additional Services shall be performed in an efficient and timely manner aimed at avoiding unnecessary delays. If the Additional Services cannot be fully completed by the termination date set forth in Section 1 of the Agreement, then the Parties agree to extend the Term for a period of 2-years following the termination date or according to the mutually agreed upon performance schedule set forth below:

   - New Termination Date, December 31, 2024

4. Effectiveness of Addendum. This Addendum shall be of no force or effect unless and until: (i) the details of the Additional Services are fully set forth in this Addendum; (ii) all attachments or supplemental information concerning the Additional Services are securely attached to this Addendum; and (iii) a duly authorized representative of the District has received a complete Addendum and acknowledged the contents by signing below. The failure to satisfy the requirements of this Section 4 shall render this Addendum null and void.

5. Addendum to Supplement. The provisions of this Addendum shall not contradict the provisions of the Agreement, but rather shall supplement the provisions thereof. Except as herein expressly modified and amended, all terms and provisions of the Agreement shall be unaffected by this Addendum and shall remain in full force and effect.

6. Counterparts. Each Party may execute this Addendum separately in counterpart and when all of the separately executed counterpart signature pages are attached in a single instrument, the same shall constitute a fully executed counterpart of this Addendum.

IN WITNESS WHEREOF, the Parties have executed this Addendum as of the date first set forth above.

DISTRICT:

San Bernardino Valley Municipal Water District

By: _____
Name: Heather P. Dyer
Its: CEO/General Manager

CONSULTANT:

NLine Energy, Inc.

By: _____
Name: Matthew Swindle
Its: CEO