

# Staff Report

**TO:** Board of Directors

**FROM:** Greg Jones, Assistant General Manager  
John Ortiz, IT Administrator

**DATE:** February 11, 2026

**SUBJECT:** Workshop - IT/OT Master Plan Update

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## **ADMINISTRATION**

**RECOMMENDATION:**  
Informational Only

**BACKGROUND:**

The IT/OT Master Plan (Plan) is intended to serve as the District's road map for addressing short-term, mid-term, and long-term organizational opportunities to improve internal services while balancing demands for new and emerging technologies and available resources. The Plan, once complete, will summarize and synthesize a comprehensive analysis of staffing capabilities & capacities, technology use & data governance, cyber security considerations, and operating processes across departments. The Plan will lay out a technology-driven strategy and vision for the District and help ensure that organization-wide technology services deliver innovative, progressive improvements that provide effective, efficient, high-quality service.

NID has sought a tailored plan that balances industry-leading best practices with efficiency maximization while addressing NID's unique needs. On April 10, 2024, NID approved a contract in the amount of \$231,707 to HDR Engineering, Inc. (HDR) for the development of the District's Information Technology / Operational Technology Master Plan.

The initial agreement tasks include:

**Task 1 – Audit and Evaluate Existing IT/OT Infrastructure and Condition (Complete).** HDR visited five water treatment plants and five hydroelectric facilities. HDR held discussions with NID leadership and key staff to review the current IT/OT networks and identify areas for improvement. This task delivered a Technical Memorandum that provides essential information for the development of the IT/OT network master plan.

**Task 2 – Develop Recommendations for Improvement (Complete).** Based on Task 1 results and input from NID staff, HDR developed a set of recommendations to bridge the gap between the current state and the desired future state. The list of recommendations focuses on the technical, organizational, and process opportunities for the IT and OT networks as near-term (1 – 3 year), mid-term (3 – 6 year), and long-term (6 – 10 year) recommendations. This task delivered a Technical Memorandum, which identified areas of risk as well as goals for the future state of the IT/OT Networks. Of the 44 identified recommendations, NID prioritized a baseline of 15, categorized into four distinct focus areas: Culture & Retention, Network & Security, Expense Consolidation, and Information & Applications.

**Task 3 – Develop the IT/OT Master Plan.** This task is estimated to be completed by May 2026. The Plan will include a resource analysis that aligns skills and capabilities with a phased implementation roadmap for near-term, mid-term, and long-term investment recommendations, including staffing and technology resources needed to implement the recommendations. Additionally, the plan will provide multi-year, planning-level cost estimates for budget and capital plans aligned with NID’s mission and organizational directives.

In addition to the above tasks, NID engaged with HDR on additional “Optional Services” to include in the successful completion of the Plan. The Optional Services were agreed to and awarded by the Board on March 26, 2025, in the amount of \$173,070. These optional services address the Human Machine Interface (HMI) application layer security, detailed OT equipment vulnerability analysis, change management plans, equipment standardization, and detailed data historization analysis . Specifically, the options include:

- **Optional Service 3: Interim ICS Programming and Configuration Revision Control Policy (Complete).** HDR provided policies and frameworks outlining configuration, programming, and supplementary documentation naming conventions, storage locations, retrieval, and archival policies for the District. Having these policies available will help provide clarity and consistency when making a programming or configuration change. Defined storage and retrieval policies will enable NID to reduce the impact of and risk to the district’s operations in the event of a disaster.
- **Optional Service 4: ICS Approved Equipment Review and Recommendations (Complete).** HDR has reviewed NID’s existing industrial control equipment for alignment with the OT Networks security posture. A coordinated equipment list is recommended for major network components on the OT network.
- **Optional Service 5: Human Machine Interface (HMI) Data Historization Architecture Review and Recommendations (In Progress).** HMI data historization architecture for both Water and Hydro data paths, mapping, and logging frequencies are being reviewed for alignment with the network design and overall security posture. This task serves as the foundation for future enterprise data management systems.

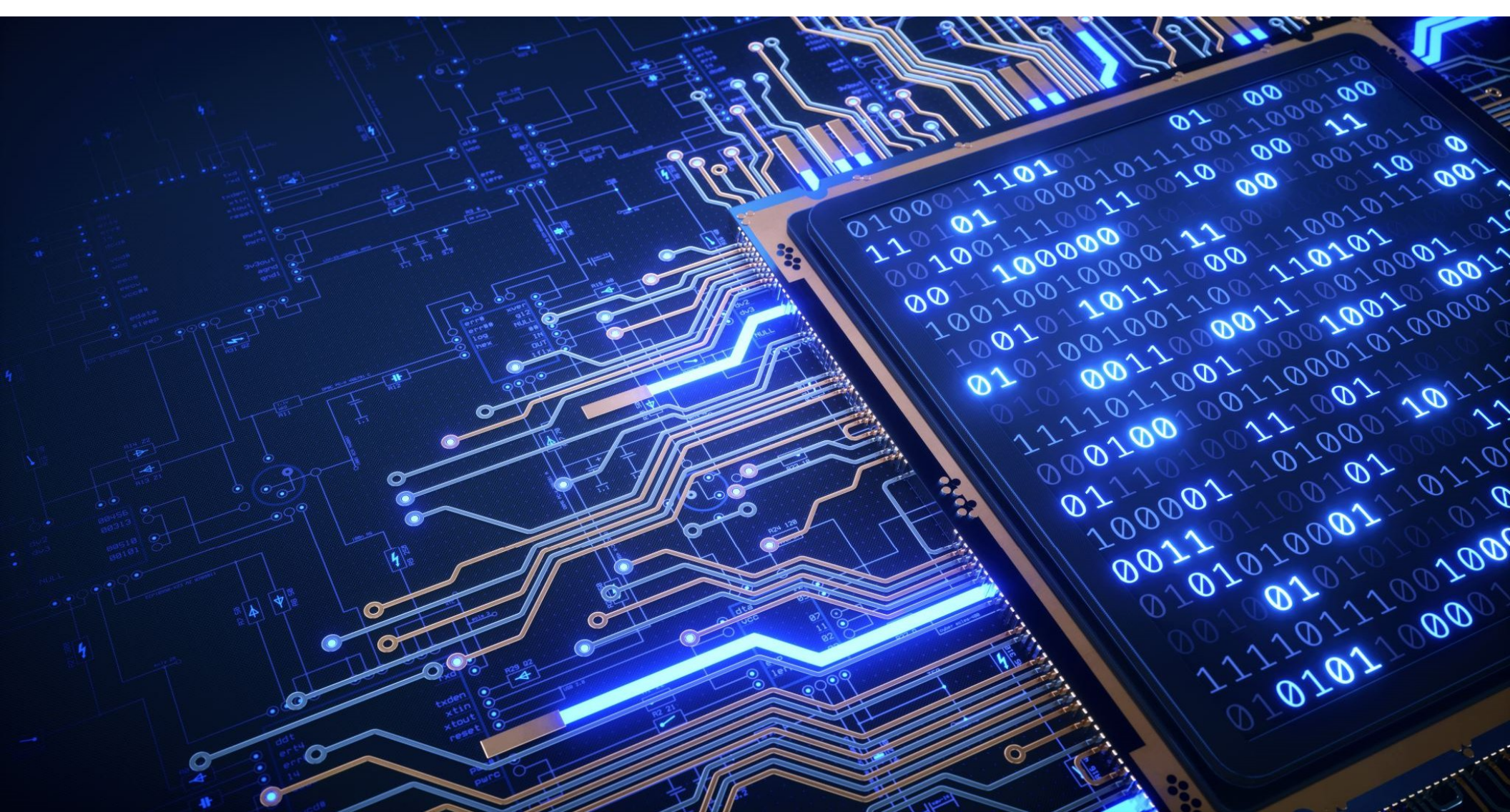
- **Optional Services 2 & 6 (Combined): OT Network Mapping and Vulnerability Assessments with Recommendations (Complete).** This Option mapped the OT networks using passive monitoring and capture tools. Using these tools will allow for unknown device identification and documentation, and will provide mapping reports for each OT network segment, including existing OT devices and which other devices they are communicating with.

**BUDGETARY IMPACT:**

The total cost of the Plan, inclusive of the optional services, is \$404,777. The project is on budget. The remaining balance on the contract is \$87,090 with an estimated completion of Q2 2026. This item is already included in the approved 2026 Annual Budget.

Attachments: 1

- Information Technology/Operational Technology Masterplan Project Update



# Information Technology/Operational Technology Masterplan Project Update

BOARD OF DIRECTORS MEETING

01.28.2026

# IT/OT MP - Project Overview

## Objective:

- ❖ Enhance network communication and security
- ❖ Ensure adequate staffing for upcoming initiatives
- ❖ Strengthen IT/OT alignment

The Plan is intended to serve as the District's road map for addressing short, mid and long-term organizational opportunities to improve internal services while balancing demands for new and emerging technologies and available resources.

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## Contract Award Task #'s 1, 2, 3:

- HDR - 4.10.24 BOD Resolution #2024-12 (\$231,707)

## Contract Award Optional Tasks:

- HDR – 3.26.2025 BOD Resolution #2025-23 (\$173,070)

Contract Total: \$404,777

Balance Remaining: \$87,090

## Project Status:

- Budget remains adequate for completion
- Project on track to complete Q2 2026





# Task # 1

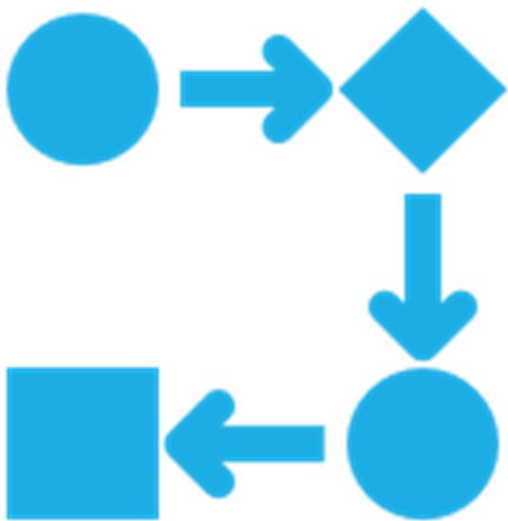
## Current State

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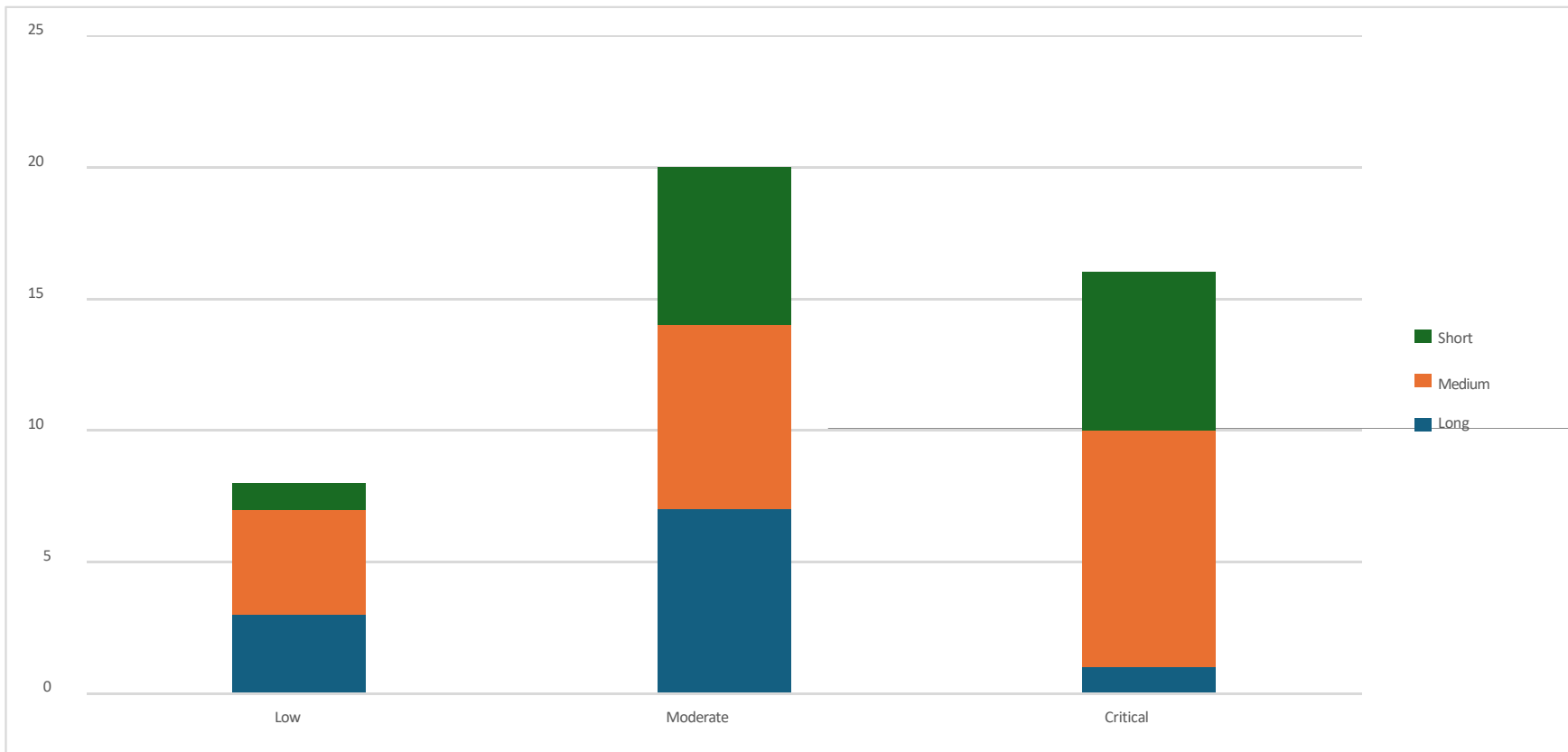
- Audit and Evaluate Existing IT/OT infrastructure and Conditions (Scope)
  - Review the existing IT and OT environment
  - Establish the current baseline.
  - Focus on existing IT and OT network architecture, configurations, and design.
  - Review NID staffing, roles, and responsibilities and structure to support and protect the OT and IT networks.
- ✓ Completed
  - HDR visited 5 WTP's and 5 hydroelectric facilities.
  - HDR interviewed NID key staff to overview the current IT/OT networks and identify improvement areas.
  - HDR produced a Technical Memorandum which provides essential baseline information for the Plan, including:
    - Field Observations, Key Findings, List of Software Applications, Staff Preliminary Roles, and Staff Responsibility Matrices

# Task #2

## Recommendations for Improvement



- ❑ Develop Recommendations for Improvement (Scope)
  - Based on results of Task #1, develop a list of recommendations to bridge the current state and the desired future state.
  - Recommendations will focus on the technical, organizational and process opportunities for the IT and OT networks.
- ✓ Completed
  - Completed Technical Memorandum
  - Initial 44 recommendations
  - NID & HDR prioritized and consolidated recommendations into focus areas, distinct projects and timeline priority



## Task #2 Projects Timeline

- Projects preliminary timeline for implementation:
  - Short-term (1-3 years) – Considered foundational to NID systems
  - Mid-term (3-6 years) – Considered flexible based on cost/benefit analysis
  - Long-term (6-10 years) – Considered aspirational, tied to organizational directives

		Title	TimeLine	Category
<b>Culture / Retention</b>	<b>1.1</b>	Add Additional IT Staffing to Better Meet NID's Technology Support Needs	Medium	Organizational
	<b>1.2</b>	Refine Delineation of IT and OT Roles and Responsibilities	Short	Organizational
		Institute IT/OT Cross-Training Program	Medium	Organizational
	<b>1.3</b>	Develop and Maintain OT Policies and Procedures	Medium	Process
		Expand IT Policies and Procedures	Medium	Process
<b>Network / Security</b>	<b>2.1</b>	Eliminate Group, Interactive Service Accounts and Shared Accounts	Short	Technical
	<b>2.2</b>	Revamp OT Communications Path to New OT Hydro HQ	Short	Technical
		Replacement of Flume Cable Infrastructure	Medium	Technical
		Improve OT Remote Site Network Architecture	Short	Technical
	<b>2.3</b>	Develop IT and Cybersecurity KPI Dashboard	Long	Organizational
<b>2.4</b>	Update/Draft Physical Security Plan	Long	Process	

## Proposed Projects

- Culture & Retention
- Network & Security

		Title	TimeLine	Category
<b>Expense Consolidation (Cost Savings)</b>	<b>3.1</b>	Replacement of Unmanaged Network Switches	Long	Technical
	<b>3.2</b>	Implement a Private Cable Maintenance Plan	Medium	Technical
		Develop and Maintain OT Standards	Long	Process
	<b>3.3</b>	Consolidate IT/OT Firewall Vendor Hardware	Long	Organizational
		Consolidate IT/OT Firewall Management	Short	Organizational
		Consolidate IT/OT Network Monitoring	Medium	Technical
<b>Information / Application (Implementation/Integration/Support)</b>	<b>4</b>	Develop OT Backup Strategy	Medium	Process
	<b>4.2</b>	Improve HMI Data Historization Architecture	Medium	Process
		Evaluate Contractor-Based Historian Support for OT to IT Data Transfer	Medium	Process
	<b>4.3</b>	Create an Emergency Response Plan	Medium	Process
	<b>4</b>	Improve Mobile Connectivity	Short	Technical
	<b>4.5</b>	Assess and Upgrade Campsite Reservation Systems	Short	Technical

## Proposed Projects

- Expense Consolidation
- Information/Applications

# Optional Tasks Progress

1. Interim ICS Programming and Configuration Revision Control Policy
  - Complete
2. ICS Approved Equipment Review and Recommendations
  - Complete
3. HMI Data Historization Architecture Review and Recommendations
  - In progress, estimated completion Q1 2026
4. Network mapping of OT Network and Vulnerability assessment and Recommendations
  - Complete



## Next Steps / Upcoming Deliverables

Completion of Optional Tasks

Completion of the Final IT/OT  
Masterplan

Board presentation – Estimated Q2  
2026

Roadmap development for  
recommended initiatives / Future CIP