Nevada Irrigation District

Staff Report

TO: Board of Directors

FROM: Doug Roderick, PE, Director of Engineering
Chip Close, Director of Operations
Steve Prosser, Director of Maintenance
Greg Jones, Assistant General Manager

DATE: September 11, 2024

SUBJECT: 2025 Capital Improvement Program Workshop

ALL DEPARTMENTS

RECOMMENDATION:

Hold a workshop to review the proposed projects recommended for the 2025 Capital Improvement Program (CIP) budget.

BACKGROUND:

The Departments have selected the projects recommended for the 2025 CIP Budget according to the priority scoring system that ranks each project with points based on specific criteria.

BUDGETARY IMPACT: $13,396,967 is the proposed total for all Departments as follows:

Fund 15	15151 Engineering	$	2,730,000
Fund 15	15171 Water Operations	$	277,000
Fund 15	15191 Maintenance	$	1,053,000
Fund 55	55112 Hydro Admin	$	5,400,000
Fund 55	55161 Hydro Operations	$	50,000
Fund 55	55167 Hydro Maintenance	$	150,000
Fund 70	70116 Watershed	$	1,346,767
Fund 70	70118 Information Services	$	740,200
Fund 70	70151 Engineering	$	1,650,000

Attachments: (1)

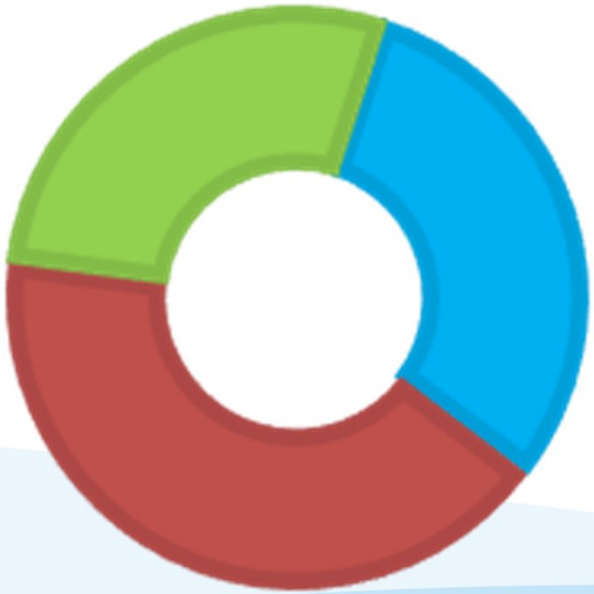
- 2025 CIP Workshop Presentation

2025 Capital Improvement Program

Workshop

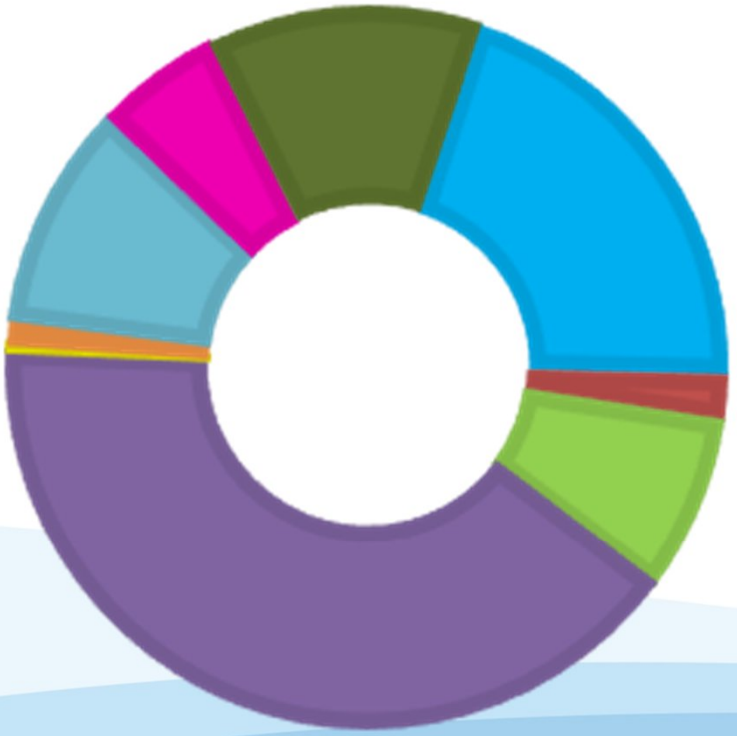
September 11, 2024

2025 Capital Budget by Fund



Fund 15 - Water Capital (30.3%)	4,060,000
Fund 55 - Hydroelectric Capital (41.8%)	5,600,000
Fund 70 - Internal Services (27.9%)	3,736,967
Total 2025 CIP Budget	**13,396,967**

2025 Capital Budget by Department



15151 Engineering (20.4%)	2,730,000
15171 Water Operations (2.1%)	277,000
15191 Maintenance (7.9%)	1,053,000
55112 Hydro Admin (40.3%)	5,400,000
55161 Hydro Operations (0.4%)	50,000
55167 Hydro Maintenance (1.1%)	150,000
70116 Watershed (10.1%)	1,346,767
70118 Information Services (5.5%)	740,200
70151 Engineering (12.3%)	1,650,000
Total 2025 CIP Budget	**13,396,967**

2025 Capital Improvement Projects
Fund 15 – Engineering

2025 Capital Improvement Project Budget Summary

Fund 15 – Engineering

Project #	Project Title	2025 Budget
2688	Automated Gaging Head Gates	35,000
TBD	Cascade at Banner Gaging Station	120,000
2706	China Pipe Crossing at Riffle Box Ravine	150,000
2684	Christian Life Way	350,000
TBD	DS Canal Shotgun Culverts (Red Dog)	300,000
2318	East Ridge PRV	150,000
TBD	Lake Wildwood Treatment Plant Chemical Tanks	140,000
2568	Lake Wildwood Treatment Plant Upgrades	200,000
2378	Loma Rica Water Treatment Plant	80,000
TBD	Lower Grass Valley Canal Gaging Station	120,000
2324	Meadowbrook Pipeline Replacement	60,000
N/A	Operations PLC Replacement	200,000
1010	Silver Way PRV	150,000
TBD	Smith Road PRV	150,000
TBD	Summit Ridge Tank Replacement	325,000
2336	Tarr Canal Diversion	200,000
	Total 2025 CIP Budget - Fund 15 - Engineering	2,730,000

Automated Gaging Head Gates — Project #: 2688

Purpose: The existing manual headgates have met their life expectancy.

Solution: Replacement of manual headgate control structures with automated gates that will allow for real-time adjustment and measurement.

Priority Score: 69 **Basis for Priority:** Project carrying over from 2024 with installation taking place in 2025.

Budget: The 2025 budget of $35,000 is to complete the installation of the automated gates.

Cascade at Banner Gaging Station — Project #: TBD

Purpose: The project proposes to replace the rated section of the Cascade Canal with a gaging station that provides automated reporting.

Solution: This section of the Cascade Canal utilizes a rated section for measurement. Rated sections lack consistent reads and require extra manpower. This project includes the installation of a gaging station with accurate, automated reporting.

Priority Score: 69 **Basis for Priority:** The Cascade is a high-priority canal as it provides source water for a majority of the Nevada County drinking water supply.

Budget: The 2025 budget for this project is $120,000.

China Pipe Crossing at Riffle Box Ravine Project #: 2706

Purpose: The elevated pipe crossing over Riffle Box Creek has rusted through and is collapsing around the support structure.

Solution: Remove and replace the piped section in the same location and alignment.

Priority Score: 65 **Basis for Priority:** The canal provides water supply to the Smartsville Water Treatment Plant and many in-home irrigation water users.

Budget: The 2025 budget for this project is $150,000.

Christian Life Way — Project #: 2684

Purpose: The existing pipeline is undersized, has reached its useful life, and is difficult to access. The existing right-of-way is inadequate and requires a new route for accessibility. The mainline is leaking, and 6-inch hydrants are fed off the current 4-inch pipe. Replacing the current pipe with a larger one will also allow for potentially adding service connections in the future.

Solution: Replace approximately 1500 Lf of 4-inch pipe with an 8-inch pipe from N. Mack Road to Durden Court.

Priority Score: 62 **Basis for Priority:** Reduces the threat/impact to health and safety and allows for future expansion.

Budget: The 2025 budget for this project is $350,000. This includes $20,000 for right-of-way and $330,000 for construction.

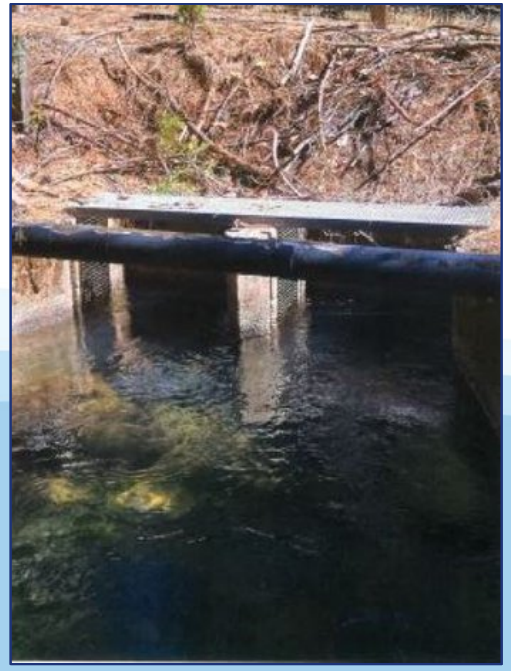
DS Canal Shotgun Culverts (Red Dog) Project #: TBD

Purpose: The twin culvert crossing under Red Dog Road limits maximum flows in the DS Canal. The twin culvert design is susceptible to catching debris between the pipes.

Solution: This project includes the removal of the twin culverts and replacement with a box section concrete culvert.

Priority Score: 73 **Basis for Priority:** The DS Canal is a main artery for water supply for Nevada County, including multiple drinking water facilities.

Budget: The 2025 budget for this project is $300,000.



East Ridge PRV — Project #: 2318

Purpose: Replace an aged, underground PRV station currently located within a driveway entrance.

Solution: Replace an aged, underground PRV station. The existing location does not have the space for a replacement above-ground structure. The replacement structure will be relocated to the opposite side of Hughes Road near the Hills Flat PRV station. Right-of-way will be required.

Priority Score: 53 **Basis for Priority:** Reduces threat or impact to health and safety, lower annual operating and maintenance costs, improves level of service.

Budget: The 2025 budget for this project is $150,000.

Lake Wildwood Treatment Plant Chemical Tanks

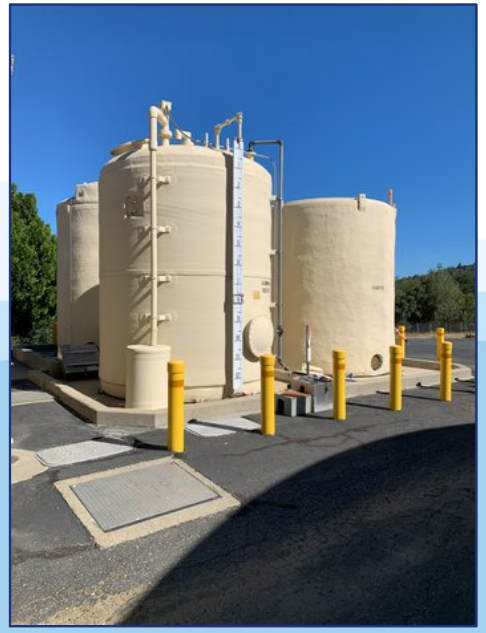
Project #: TBD

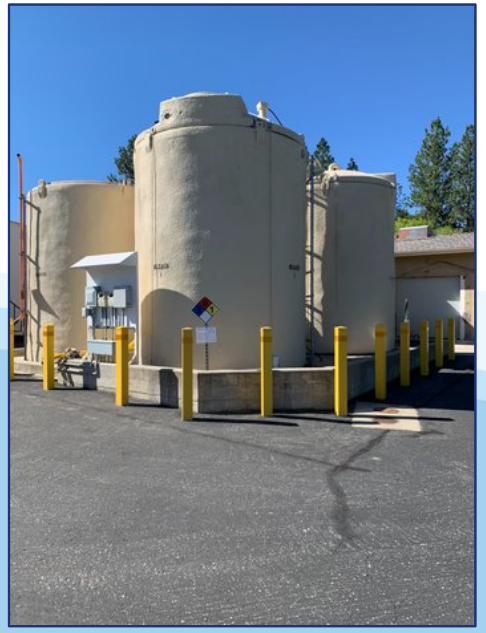
Purpose: This project is necessary to provide redundant storage of water treatment chemicals at the plant. The goal is to have two tanks for each chemical so repairs and maintenance can be completed without interruption.

Solution: Pour a new concrete tank pad with curbing and drains that tie into the existing system to prevent off-site spillage. Once the pad is complete, purchase and install a new double-walled chemical storage tank.

Priority Score: 73 **Basis for Priority:** Provide basic water treatment needs when supplier availability is questionable.

Budget: The 2025 budget for this project is $140,000.





Lake Wildwood Treatment Plant Upgrades Project #: 2568

Purpose: The Lake Wildwood Treatment Plant has exceeded its useful life and requires substantial upgrades.

Solution: Treatment plant upgrades include replacing clearwells, pumps, drying beds, sediment ponds, intake structure, and electrical.

Priority Score: 72 **Basis for Priority:** The project will result in lower operating costs, provides a regional benefit to the community, and reduces the threat/impact to health and safety.

Budget: The 2025 budget of $200,000 is to complete the planning & design phase. The project is continuing from prior years.

Loma Rica Water Treatment Plant — Project #: 2378

Purpose: Improve chlorine contact time for treatment plant effluent.

Solution: Investigate options to improve the chlorine contact time for the treatment plant effluent, allowing for higher plant flows, and increasing the existing storage available for system storage reserves.

Priority Score: 68 **Basis for Priority:** Higher flows and increased storage.

Budget: The 2025 budget for this project is $80,000. An additional $270,000 is anticipated for 2026.

- 8.3 MGD Capacity
- Serves 5,065 Connections
  - Equivalent to population of 14,385 people
- 120 Miles of Pipeline
- >30 Pressure Zones
- Intertied with Lake of the Pines Distribution System
- Produced 660 Million Gallons in 2020

Lower Grass Valley Canal Gaging Station Project #: TBD

Purpose: The head gate and gaging station for the Lower Grass Canal need replacement.

Solution: The project proposes to replace both the head gate and the measuring station with a Rubicon gate that will accomplish both flow regulation and measurement with one device.

Priority Score: 68 **Basis for Priority:** Operational efficiency

Budget: The 2025 budget for this project is $120,000.

Meadowbrook Pipeline Replacement — Project #: 2324

Purpose: Service lines are located in backyards and tree roots have broken the mainline several times in 2017, 2018, and 2019. Placer County had a five-year moratorium after Bell Road was repaved, which halted the project.

Solution: Relocate service lines to Bell Road and abandon the 4-inch mainline.

Priority Score: 49 **Basis for Priority:** Reduces threat or impact to health and safety, lower annual operating and maintenance costs, improves level of service.

Budget: The 2025 budget for this project is $60,000.

Operations PLC Replacement — Project #: N/A

Purpose: The PLC is the computer hub of the electronics operating, maintaining, and monitoring the water treatment plant. It is the hub of all treatment plant operations. The manufacturer has notified NID that the existing equipment will not be supported in the future. Spare parts and security patches will no longer be supported.

Solution: Replace one Programmable Logic Controller (PLC) rack at Elizabeth George, and two PLC racks on the Banner Cascade Pipeline with new updated equipment.

Priority Score: 70 **Basis for Priority:** Increase reliability and security.

Budget: The 2025 budget for this project is $200,000.

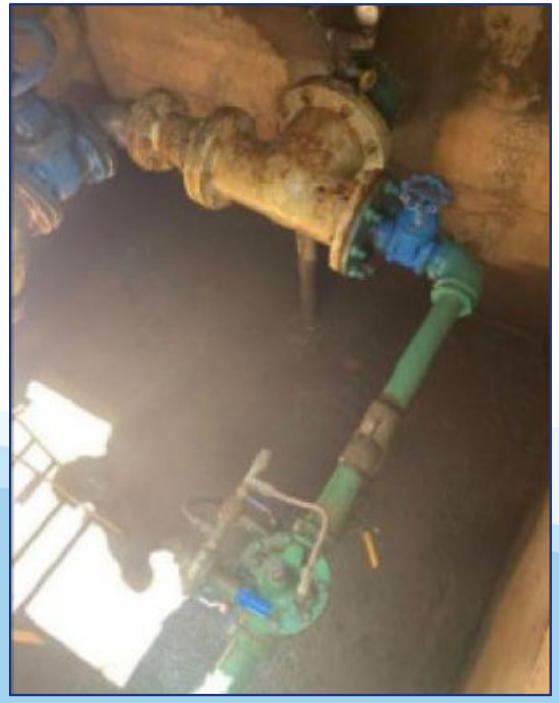
Silver Way PRV — Project #: 1010

Purpose: The existing PRV station is difficult to service and only has a 4-inch valve for fire flow.

Solution: Construct a new above-ground PRV Station on a parcel that fronts Hwy 174.

Priority Score: 55 **Basis for Priority:** Reduces threat or impact to health and safety, lower annual operating and maintenance costs, improves level of service.

Budget: The 2025 budget for this project is $150,000.



Smith Road PRV

Project #: TBD

Purpose: The existing pressure-reducing valve (PRV) has reached its service life and will be compromised with the widening of HWY 49. The station needs to be relocated to reduce the service main pressure across LaBarr Meadows property.

Solution: Abandon the existing Smith Road PRV and construct a new PRV next to Dog Bar Road.

Priority Score: 62 **Basis for Priority:** The project is necessary for CalTrans widening of HWY 49 and is the only source of water supply across HWY 49 in the Smith Road area.

Budget: The 2025 budget for this project is $150,000.

Summit Ridge Tank Replacement — Project #: TBD

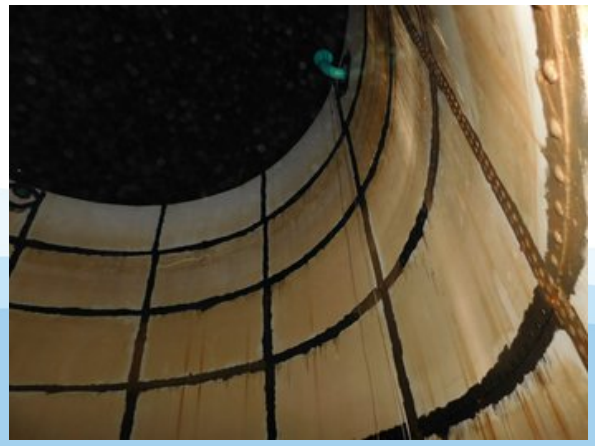
Purpose: The Summit Ridge Tank has experienced corrosion to the exterior coating and has rusted through. The tank is ceramic coated and cannot be repaired.

Solution: Replace the tank with a standard welded steel tank to match the rest of the District's tank facilities.

Priority Score: 70 **Basis for Priority:** Reduces the threat or impact to health and safety.

Budget: The 2025 budget for this project is $325,000.

Rusted Bolts Inside Tank



Rusted Wall Inside Tank

Tarr Canal Diversion — Project #: 2336

Purpose: The diversion structure on Wolf Creek that feeds the Tarr Canal is badly deteriorated and will be replaced. Water is leaking through the existing diversion and walls. The sluice gate appears to be inoperable and buried.

Solution: Replace the diversion structure in Wolf Creek with a new concrete structure. Due to the location, extensive CEQA and permits will be necessary.

Priority Score: 62 **Basis for Priority:** This project will lower operating costs and will provide regional benefit to the community, and deferral of the project could cause a disruption to service.

Budget: The 2025 budget for this project is $200,000. The project is continuing from prior years.

2025 Capital Improvement Projects
Fund 15 – Water Operations

2025 Capital Improvement Project Budget Summary

Fund 15 – Water Operations

Project #	Project Title	2025 Budget
N/A	Replacement of Vehicle #10622	85,000
N/A	Replacement of Vehicle #10696	48,000
N/A	Replacement of Vehicle #10723	48,000
N/A	Replacement of Vehicle #10801	48,000
N/A	Replacement of Vehicle #10912	48,000
Total	2025 CIP Budget - Fund 15 - Water Operations	277,000

Replacement of Vehicle #10622 — Project #: N/A

Purpose: Vehicle #10622 has been recommended for replacement in 2025 due to new fleet regulations per the District's Mechanic Shop. Vehicle #10622 is a 2014 Ford F250 UB with 122,526 miles. Based upon historic usage, this vehicle is expected to have over 135,000 miles by the end of 2025.

Solution: Purchase replacement truck.

Priority Score: 61 **Basis for Priority:** Staff safety and operational efficiency

Budget: The 2025 budget includes $85,000 for replacement of this vehicle.

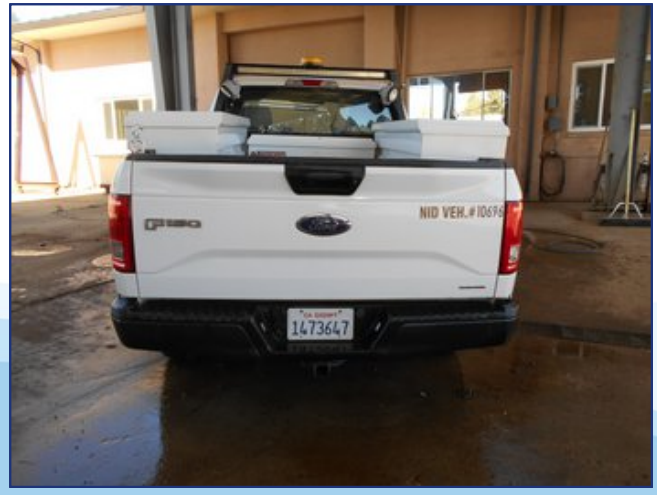
Replacement of Vehicle #10696 Project #: N/A

Purpose: Vehicle #10696 is recommended for replacement per the District's fleet mechanics. Vehicle #10696 is a 2016 Ford F150 4x4 with 135,406 miles. Based upon historic usage, this vehicle is expected to have over 152,000 miles by the end of 2025.

Solution: Purchase replacement truck.

Priority Score: 61 **Basis for Priority:** This vehicle is of high priority as it is utilized for daily treated water operations and emergency response.

Budget: The 2025 budget includes $48,000 for replacement of this vehicle.



Replacement of Vehicle #10723 — Project #: N/A

Purpose: Vehicle #10723 is overdue for replacement per the District's fleet mechanics. Vehicle #10723 is a 2016 Ford F150 4x4 with 129,415 miles. Based upon historic usage, this vehicle is expected to have over 150,000 miles by the end of 2025.

Solution: Purchase replacement truck.

Priority Score: 61 **Basis for Priority:** This vehicle is of high priority as it is utilized for daily treated water operations and emergency response.

Budget: The 2025 budget includes $48,000 for replacement of this vehicle.

Replacement of Vehicle #10801 Project #: N/A

Purpose: Vehicle #10801 is overdue for replacement per the District's fleet mechanics. Vehicle #10801 is a 2017 Ford F150 4x4 with 141,059 miles. Based upon historic usage, this vehicle is expected to have over 157,000 miles by the end of 2025.

Solution: Purchase replacement truck.

Priority Score: 61 **Basis for Priority:** This vehicle is of high priority as it is utilized for daily treated water operations and emergency response.

Budget: The 2025 budget includes $48,000 for replacement of this vehicle.

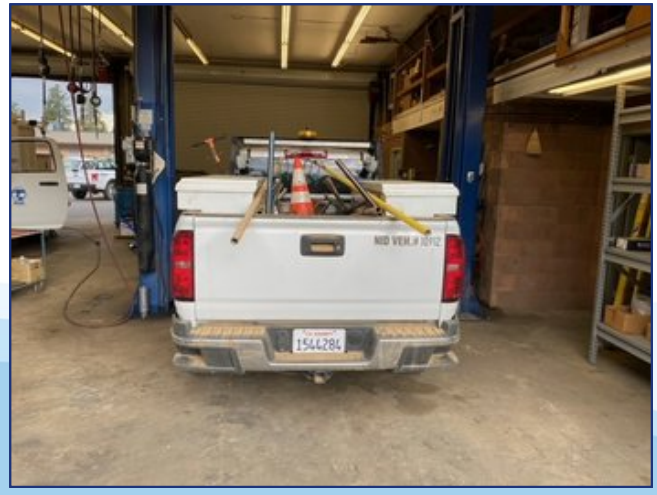
Replacement of Vehicle #10912 — Project #: N/A

Purpose: Vehicle #10912 has been recommended for replacement in 2025 per the District's fleet mechanics. Vehicle #10912 is a 2018 Chevy Colorado with 128,060 miles. Based upon historic usage, this vehicle is expected to have over 146,000 miles by the end of 2025.

Solution: Purchase replacement truck.

Priority Score: 61 **Basis for Priority:** This vehicle is of high priority as it is utilized for daily treated water operations and emergency response.

Budget: The 2025 budget includes $48,000 for replacement of this vehicle.



2025 Capital Improvement Projects
Fund 15 – Maintenance

2025 Capital Improvement Project Budget Summary

Fund 15 – Maintenance

Project #	Project Title	2025 Budget
N/A	1/2-ton Pickup Truck (Replace Vehicle 10610)	65,000
N/A	1/2-ton Pickup Truck (Replace Vehicle 10611)	65,000
N/A	Compact Pickup Truck (Replace Vehicle 10906)	48,000
N/A	Fixed Generator - Placer Yard	75,000
N/A	Ironworker Machine - Welding Shop	75,000
N/A	Mini Excavator - Maintenance Fleet	75,000
N/A	Vacuum Excavator Truck - Maintenance Fleet	650,000
	Total 2025 CIP Budget - Fund 15 - Maintenance	1,053,000

1/2-ton Pickup Truck (Replace Vehicle 10610) Project #: N/A

Purpose: The District's Vegetation Control Crew needs reliable vehicles that are driven daily (often long miles) and haul materials and trailered equipment both on- and off-road (over rough terrain). The existing 2015 Ford F250 (3/4-ton) 4x4 pickup truck (Asset #10610) has over 122,000 miles (June 2024) and is driven daily averaging 15,000+ miles per year.

Solution: Purchase a new, replacement 1/2-ton 4x4 pickup. This would be a "downsize" purchase from a 3/4-ton truck to a 1/2-ton truck.

Priority Score: 65 **Basis for Priority:** Delivery time of a replacement truck is estimated to be mid- to late-2025, aging the truck to 10 years and pushing its anticipated mileage to over 137,000 miles.

Budget: The 2025 budget includes $65,000 for replacement of this vehicle.

1/2-ton Pickup Truck (Replace Vehicle 10611) Project #: N/A

Purpose: The District's Vegetation Control Crew needs reliable vehicles that are driven daily (often long miles) and haul materials and trailered equipment both on- and off-road (over rough terrain). The existing 2015 Ford F250 (3/4-ton) 4x4 pickup truck (Asset #10611) has over 122,000 miles (June 2024) and is driven daily averaging 15,000+ miles per year.

Solution: Purchase a new, replacement 1/2-ton 4x4 pickup. This would be a "downsize" purchase from a 3/4-ton truck to a 1/2-ton truck.

Priority Score: 65 **Basis for Priority:** Delivery time of a replacement truck is estimated to be mid- to late-2025, aging the truck to 10 years and pushing its anticipated mileage to over 137,000 miles.

Budget: The 2025 budget includes $65,000 for replacement of this vehicle.

Compact Pickup Truck (Replace Vehicle 10906) Project #: N/A

Purpose: The District's dedicated "underground facility locator" needs a reliable vehicle to respond to all USA North 811 (Underground Service Alert) excavation tickets submitted by various utilities/counties (PG&E, AT&T, communications, sewer, etc.). The existing 2018 Dodge 1500 (1/2-ton) 4x4 pickup truck (Asset #10906) has over 121,000 miles (June 2024) and is driven daily, averaging 20,000+ miles per year, responding to all USA tickets throughout the District's entire service area.

Solution: Purchase a new, replacement compact/midsize 4x4 pickup. This would be a "downsize" purchase from a long-bed 1/2-ton truck to a short-bed compact/midsize truck.

Priority Score: 42 **Basis for Priority:** Delivery time of a replacement truck is estimated to be mid- to late-2025, aging the truck to 7 years and pushing its anticipated mileage to over 141,000 miles.

Budget: The 2025 budget includes $48,000 for replacement of this vehicle.

Fixed Generator - Placer Yard Project #: N/A

Purpose: The District's Placer Maintenance Yard, located at 1900 Gold Hill Road in a rural area of Newcastle, needs a reliable source of backup/standby power. The Maintenance Department's Placer Crew reports to/operates out of this yard daily and supports the District's raw and treated water distribution systems throughout Placer County, as well as Lake of the Pines (Nevada County) as needed.

Solution: Purchase and install a new fixed/stationary, propane generator system. An outside contractor would install a generator and transfer switches on both the office building and warehouse. The Placer Maintenance Crew would install new conduit between the office building and warehouse, and a new propane/gas line to the generator pad.

Priority Score: 52 **Basis for Priority:** Currently, the yard has no reliable source of backup/standby power to operate its fuel pumps, well (bathrooms/drinking water), office (telephones, computers and internet connection), shops, etc.

Budget: The 2025 budget for this purchase is $75,000.

Ironworker Machine - Welding Shop Project #: N/A

Purpose: Keeping the Welding Shop outfitted with the tools and machines they need to be efficient and produce work products that are oftentimes complex in nature is a great benefit to the District. A typical ironworker can shear, punch, notch or even bend metal products without requiring extensive setup times or complicated jig setups.

Solution: Purchase a new, electric ironworker machine.

Priority Score: 47 **Basis for Priority:** An ironworker machine will expedite the Welder's fabrication process and save future expenses on parts and materials. This one tool will eliminate the need and use of multiple other tools.

Budget: The 2025 budget for this purchase is $75,000.

Mini Excavator - Maintenance Fleet — Project #: N/A

Purpose: Both the Grass Valley and Placer raw water crews maintain a large area of infrastructure. They utilized different sizes of excavators to repair leaks, build berms, masticate the District's access and egress, and install new raw water conduits. A mini excavator is one of, if not the most utilized type of excavator within the District's fleet.

Solution: Purchase a new track mini excavator. This purchase would be a CARB-compliant net benefit to the District.

Priority Score: 55 **Basis for Priority:** A mini excavator is a vital tool the raw water crews use daily. Currently, the Maintenance Department has one Bobcat E35 mini excavator in its fleet, and a second similar machine will aid in achieving the District's mission and goals. .

Budget: The 2025 budget for this purchase is $75,000.

Vacuum Excavator Truck - Maintenance Fleet Project #: N/A

Purpose: The existing vacuum truck is assigned to the Grass Valley Yard and utilized almost daily, given the District's aging infrastructure and the constant need to repair leaks. At times there are multiple leaks in a single day, requiring the need for two vacuum trucks.

Solution: Purchase a new vacuum truck. This purchase would be a CARB-compliant net benefit to the District.

Priority Score: 53 **Basis for Priority:** When the existing vacuum truck needs service and/or repair, it often involves ordering specialty parts with "long lead times" and a redundant truck is necessary.

Budget: The 2025 budget for this purchase is $650,000.

2025 Capital Improvement Projects
Fund 55 – Hydro Admin

2025 Capital Improvement Project Budget Summary

Fund 55 – Hydro Admin

Project #	Project Title	2025 Budget
2359	Bowman North Dam Upstream Lining Improvements	50,000
2655	Chicago Park Powerhouse Refurbishment	500,000
2599	Christmas Tree Spill Gate Replacement	50,000
2395	Deer Creek Excitation Upgrade	150,000
2665	Deer Creek Powerhouse Communications Upgrade	150,000
TBD	Deer Creek Powerhouse Generator Breaker and Switchgear Replacement	300,000
TBD	Dutch Flat #2 RTU Replacement	100,000
TBD	Dutch Flat Flume Repair	100,000
TBD	Dutch Flat Forebay Drain Line Repair	75,000
2658	French Lake LLO Gate Improvements	200,000
2432	New Hydroelectric Field Office Development	2,000,000
N/A	PLC Software/Firmware Upgrades	175,000
2392	Rollins Powerhouse Governor Replacement	100,000
2667	SCADA Upgrades	100,000
TBD	Scotts Flat Powerhouse Penstock Pipe Seismic Upgrade	50,000
2094	Scotts Flat Spillway Repair and Upgrade	600,000
TBD	South Yuba 8.5 Mile Slide Repair	700,000
	Total 2025 CIP Budget - Fund 55 - Hydro Admin	5,400,000

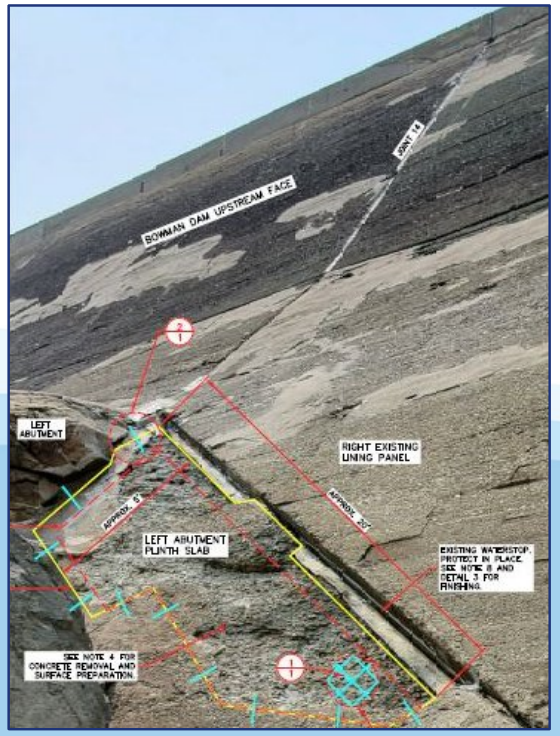
Bowman North Dam Upstream Lining Improvements — Project #: 2359

Purpose: The existing lining on the upstream face of Bowman North Dam has been damaged by extreme freeze/thaw action of the concrete at a high elevation and is in need of significant repair to prevent serious damage to critical infrastructure.

Solution: Fix and improve the lining on the upstream side of the Bowman North Dam.

Priority Score: 80 **Basis for Priority:** Repairs are being required by the Division of Safety of Dams (DSOD).

Budget: The 2025 budget for this project is $50,000. The project is continuing from prior years.



Chicago Park Powerhouse Refurbishment Project #: 2655

Purpose: Improve facility efficiency and performance by replacing or upgrading the existing turbine and main transformer and ensure safe plant operation by disassembling, cleaning, and rebuilding the generator at Chicago Park Powerhouse. The existing transformer is approximately 60 years old, which is beyond the industry's standard life expectancy.

Solution: Replace or upgrade the existing turbine, main transformer, and their appurtenances. Replace deteriorated generator windings, insulation, poles, and other generator appurtenances.

Priority Score: 85 **Basis for Priority:** If not replaced, the transformer could experience a catastrophic failure, potential damage to property and life beyond the boundaries of the District, and unplanned unit downtime and loss of revenue for the District.

Budget: The 2025 budget for this project is $500,000. The project is continuing from prior years.

Christmas Tree Spill Gate Replacement Project #: 2599

Purpose: Improve canal operational efficiency and reduce safety hazards related to operator call-outs during storm events. The existing gate must be manually operated by District staff to release water during high-flow events.

Solution: Replace the existing radial gate with an overshot gate to improve personnel safety and operational performance. The new gate will be designed to accommodate passive overflow, which will eliminate the need to dispatch District staff to this site to make flow changes.

Priority Score: 68 **Basis for Priority:** Danger to the safety of District operators who must travel to the remote site often during storm events to make flow changes.

Budget: The 2025 budget of $50,000 is for planning and design.

Deer Creek Excitation Upgrade — Project #: 2395

Purpose: Maintain powerhouse reliability and function by replacing the Deer Creek Powerhouse excitation system from the 1970's.

Solution: Procure a new excitation system to replace the existing, obsolete exciter.

Priority Score: 83 **Basis for Priority:** Health and safety, operational efficiency

Budget: The 2025 budget of $150,000 is for planning and design.

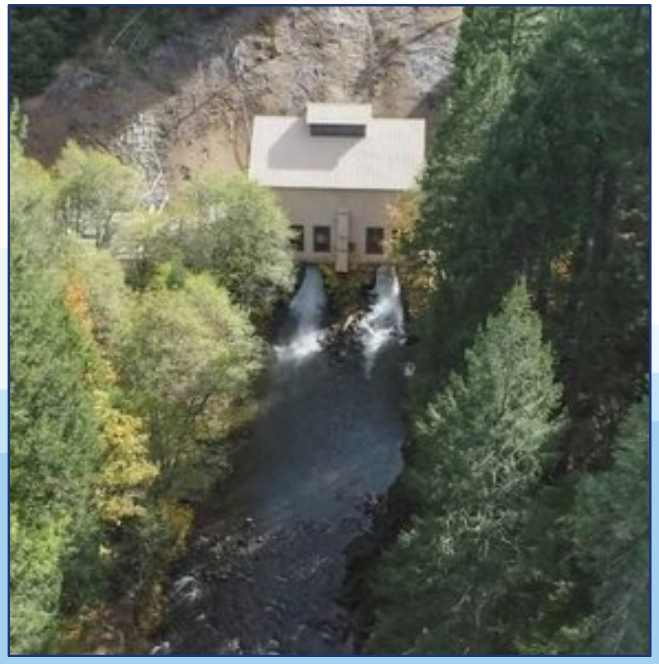
Deer Creek Powerhouse Communications Upgrade — Project #: 2665

Purpose: Establish a new data link for critical information transfer from the KLOVE Tower/Deer Creek Powerhouse to Hydro headquarters.

Solution: Design and install a new microwave data link from the KLOVE Tower/Deer Creek Powerhouse to Hydro headquarters. Includes specifying hardware, design, and installation work.

Priority Score: 78 **Basis for Priority:** Increase operational efficiency.

Budget: The 2025 budget for this project is $150,000. The project is continuing from prior years.



Deer Creek Powerhouse Generator Breaker and Switchgear Replacement

Project #: TBD

Purpose: Reduce safety risks for onsite staff replacing the existing generator breaker and switchgear.

Solution: Design a new, modern system with lower arc flash hazard for use in the powerhouse. Adding new protective relays will also improve the protection scheme by providing faster tripping time.

Priority Score: 82 **Basis for Priority:** Reduces the threat or impact to health and safety.

Budget: The 2025 budget of $300,000 is for planning and design.

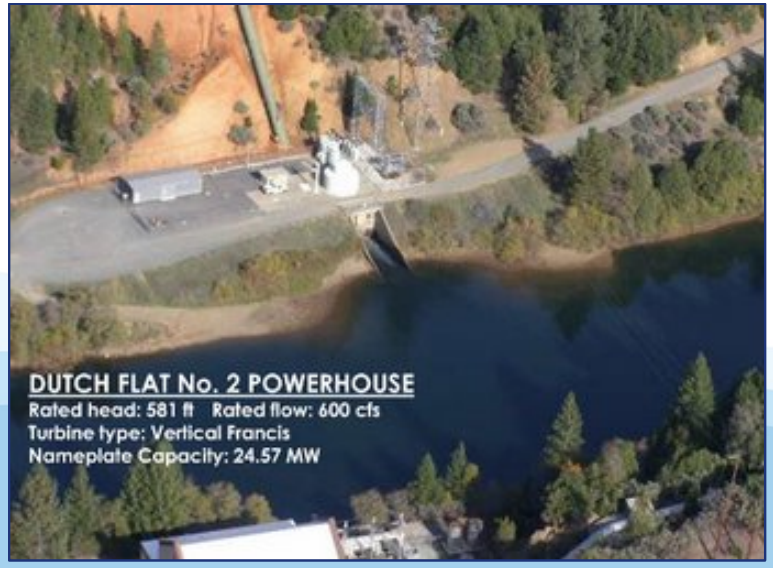
Dutch Flat #2 RTU Replacement — Project #: TBD

Purpose: Replace end-of-life remote terminal unit (RTU) with modern and more reliable equipment.

Solution: Design and replace Remote Terminal Unit (RTU) similar to Chicago Park Powerhouse to provide modern, onsite SCADA alarming.

Priority Score: 82 **Basis for Priority:** Increase operational efficiency and replacing obsolete equipment.

Budget: The 2025 budget of $100,000 is for planning and design.



Dutch Flat Flume Repair — Project #: TBD

Purpose: Prevent erosion and damage to the conduit which would prevent flow from reaching the Dutch Flat #2 Powerhouse for power generation.

Solution: Repair flume joints, buttresses, and other sources of leaks to improve the reliability of the Dutch Flat Flume.

Priority Score: 50 **Basis for Priority:** Increase reliability and operational efficiency

Budget: The 2025 budget for this project is $100,000.

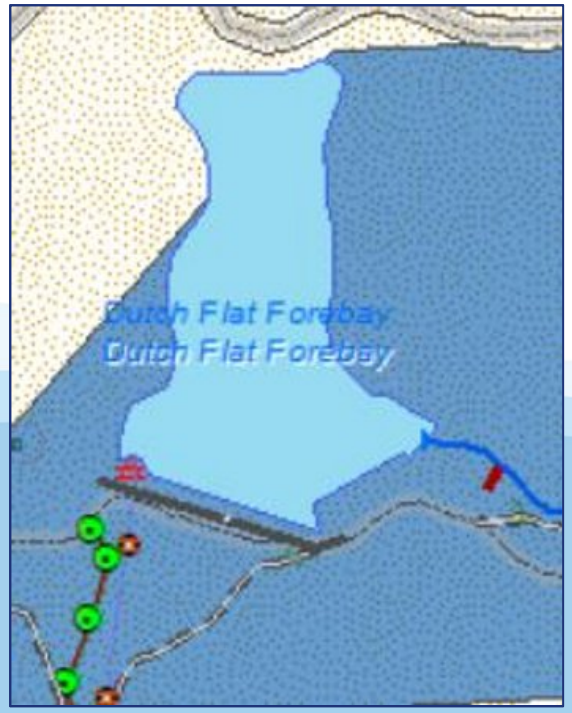
Dutch Flat Forebay Drain Line Repair — Project #: TBD

Purpose: Inspect the blanket drain and write an engineering evaluation per FERC Part 12D Recommendation.

Solution: Dig up the drain line to investigate a blockage observed during a remote operating vehicle inspection in 2023. Make repairs or replace sections of the pipe once the extent of the damage is known.

Priority Score: 75 **Basis for Priority:** Operational efficiency and FERC recommendation

Budget: The 2025 budget for this project is $75,000.



French Lake LLO Gate Improvements — Project #: 2658

Purpose: Ensure proper and safe operation of the low level outlet valve for French Lake and to mitigate potential maintenance related failures.

Solution: Repair or replace the hydraulic gate control system pending underwater inspection. The existing hydraulic lines, pump, and ram are showing signs of degradation and must be refurbished or replaced.

Priority Score: 80 **Basis for Priority:** Operational efficiency, and regulatory compliance.

Budget: The 2025 budget for this project is $200,000. The project is continuing from prior years.

New Hydroelectric Field Office Development Project #: 2432

Purpose: Complete improvements necessary for occupation of the new Hydro Field Office in Colfax.

Solution: Complete office building renovations, make repairs to the roof, install perimeter fencing, upgrade communications, and install a backup generator.

Priority Score: 72 **Basis for Priority:** This work is to make the building inhabitable for the future relocation of the Hydroelectric Department.

Budget: The 2025 budget for this project is $2,000,000. The project is continuing from prior years.

PLC Software/Firmware Upgrades — Project #: N/A

Purpose: The PLC is the computer hub of the electronics operating, maintaining, and monitoring. New software and input cards are needed to maintain reliability and security.

Solution: Purchase new software and input cards for the following powerhouses PLCs: Bowman Powerhouse, Dutch Flat 2 Powerhouse, Chicago Park Powerhouse, and Rollins Powerhouse.

Priority Score: 68 **Basis for Priority:** Increase reliability and security.

Budget: The 2025 budget for this project is $175,000.

Rollins Powerhouse Governor Replacement Project #: 2392

Purpose: Improve facility efficiency and performance by replacing or upgrading the existing mechanical governor at Rollins Powerhouse, which has an estimated age of 40 years or more.

Solution: Replace or upgrade the existing Rollins Powerhouse governor and appurtenances.

Priority Score: 77 **Basis for Priority:** If the project is not completed, the existing governor could fail, which would result in an unplanned discharge into the Bear River downstream in violation of the District's regulatory compliance requirements.

Budget: The 2025 budget for this project is $100,000. The project is continuing from prior years.

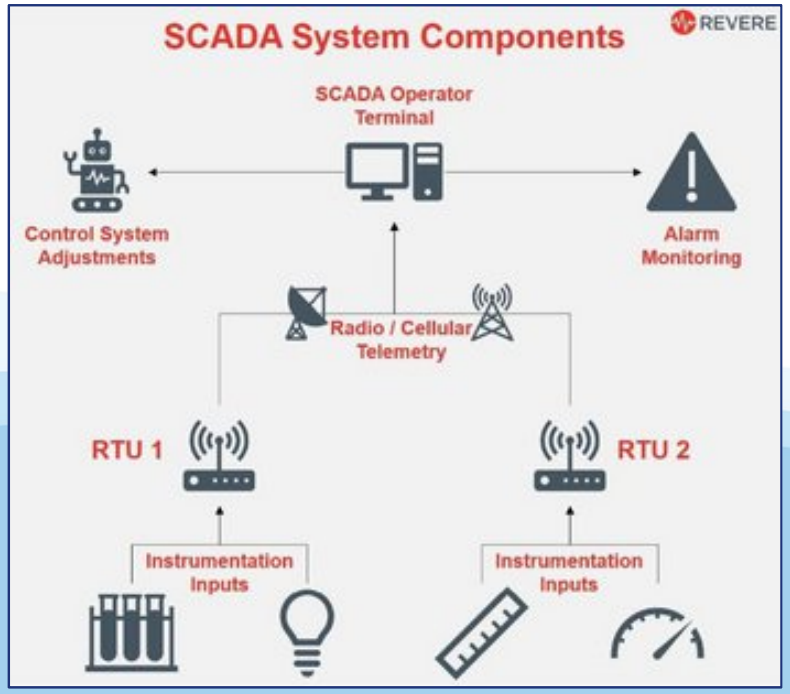
SCADA Upgrades — Project #: 2667

Purpose: To maintain the SCADA network.

Solution: Update hardware and software associated with NID Hydro's SCADA system for Combie North Powerhouse, Combie South Powerhouse, and Scotts Flat Powerhouse.

Priority Score: 70 **Basis for Priority:** Failure to complete the project could result in hardware failures and/or leaving critical infrastructure systems running on unsupported software.

Budget: The 2025 budget for this project is $100,000.



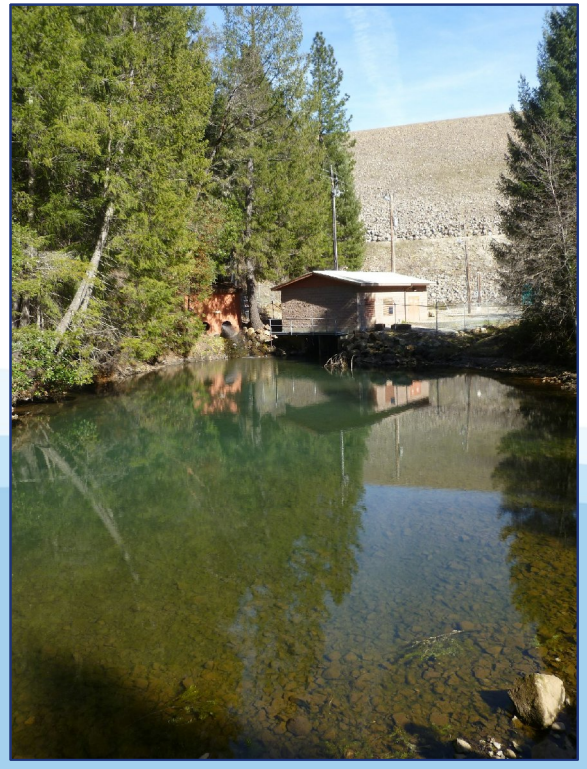
Scotts Flat Powerhouse Penstock Pipe Seismic Upgrade — Project #: TBD

Purpose: Secure the penstock to the supports for stability during a seismic event.

Solution: Develop a plan to modify existing penstock pipe saddles in order to better secure the penstock.

Priority Score: 77 **Basis for Priority:** Reduces the threat or impact to health and safety.

Budget: The 2025 budget for this project is $50,000.



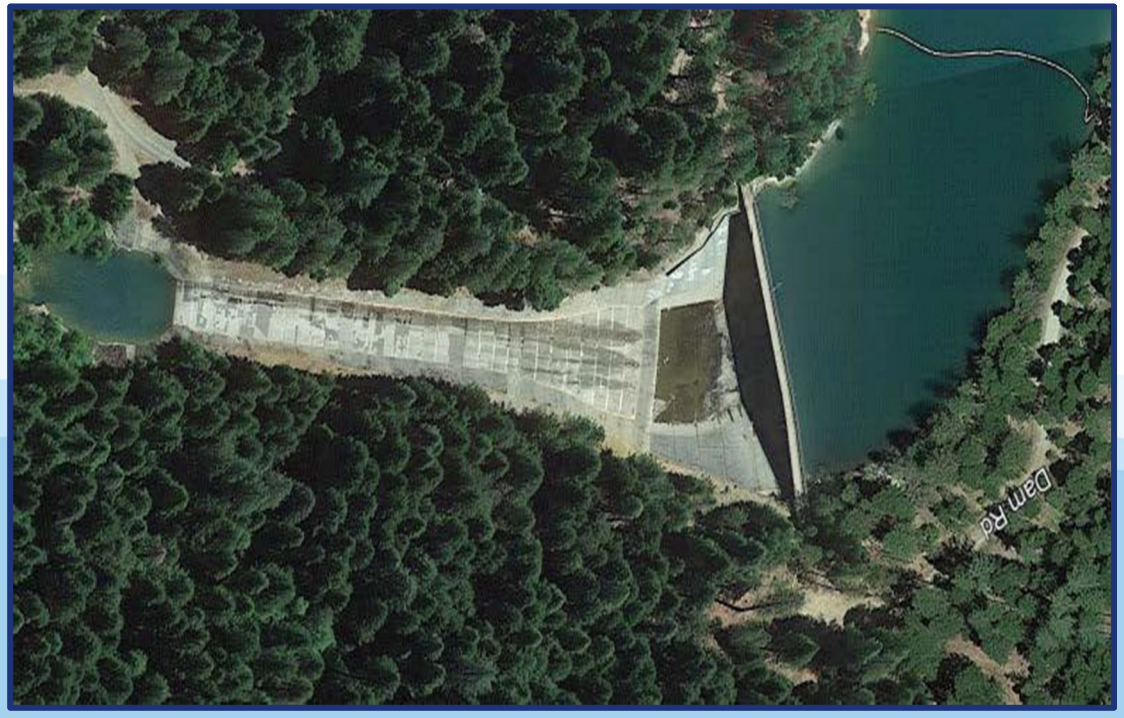
Scotts Flat Spillway Repair and Upgrade — Project #: 2094

Purpose: Upgrade the Scotts Flat Spillway as necessary to safely pass the probable maximum flood as required by DSOD and FERC.

Solution: Design and construct planned modifications of the Scotts Flat spillway chute, chute walls, and the terminal energy dissipation structure.

Priority Score: 50 **Basis for Priority:** Regulator required, public safety, critical infrastructure.

Budget: The 2025 budget for this project is $600,000. The project is continuing from prior years.



South Yuba 8.5 Mile Slide Repair — Project #: TBD

Purpose: Repair the active landslide above the South Yuba Canal.

Solution: Develop a geostabilization plan to mitigate the active landslide above the South Yuba Canal.

Priority Score: 81 **Basis for Priority:** Reduce the threat/impact to health and safety, improve level of service, protect critical infrastructure.

Budget: The 2025 budget for this project is $700,000.

2025 Capital Improvement Projects
Fund 55 – Hydro Operations

2025 Capital Improvement Project Budget Summary

Fund 55 – Hydro Operations

Project #	Project Title	2025 Budget
N/A	2-Seater Side-by-Side (Replace H5478)	50,000
	Total 2025 CIP Budget - Fund 55 - Hydro Operations	50,000

2-Seater Side-by-Side (Replace H5478) Project #: N/A

Purpose: Replace a 2020 Polaris General (H5478) with 802 engine hours and 10,445 miles.

Solution: Purchase a new side-by-side to allow Hydro Operations staff to access remote facilities without causing damage to trucks.

Priority Score: 77 **Basis for Priority:** Staff safety and operational efficiency.

Budget: The 2025 budget for this vehicle purchase is $50,000.

2025 Capital Improvement Projects
Fund 55 – Hydro Maintenance

2025 Capital Improvement Project Budget Summary

Fund 55 – Hydro Maintenance

Project #	Project Title	2025 Budget
N/A	Bandit Chipper	90,000
N/A	Bobcat Walk Behind Track Loader	60,000
Total 2025 CIP Budget- Fund 55 - Hydro Maintenance		150,000

Bandit Chipper — Project #: N/A

Purpose: Increase in-house labor efficiency and save on contractor fees on vegetation removal projects.

Solution: Purchase a new chipper.

Priority Score: 73 **Basis for Priority:** Operational efficiency.

Budget: The 2025 budget for this chipper purchase is $90,000.

Bobcat Walk Behind Track Loader — Project #: N/A

Purpose: Maintain the South Yuba Canal and mobilize equipment and materials to remote sites along this system.

Solution: Purchase a new Bobcat mini track loader.

Priority Score: 78 **Basis for Priority:** Staff safety and operational efficiency.

Budget: The 2025 budget for this track loader purchase is $60,000.

2025 Capital Improvement Projects
Fund 70 – Watershed

2025 Capital Improvement Project Budget Summary
Fund 70 – Watershed

Project #	Project Title	2025 Budget
2592	English Meadow Restoration Project	50,000
2455	Hazard Tree / Fire Fuels Management	300,000
2699	Selective Logging	173,250
2697	Upper Middle Yuba Watershed Forest Restoration: NEPA Planning	290,000
2684	Upper Yuba Forest Restoration Project	533,517
	Total 2025 CIP Budget - Fund 70 - Watershed	1,346,767

English Meadow Restoration Project — Project #: 2592

Purpose: Restore approximately 380 acres of meadow and mixed conifer forest habitat in English Meadow, a site that has been identified as a restoration objective in the Middle Yuba River watershed.

Solution: Implement floodplain restoration and forest management activities to improve hydrology and forest health in English Meadow. This will include installing a series of woody debris jams and riffles to capture sediment in the channel, halt head-cutting tributaries, raise the water table, and improve the hydrologic connection between channel flows and the meadow floodplain.

Priority Score: 66 **Basis for Priority:** To provide water security, increased water supply and safeguard our source watersheds. Reduces threat to health and safety of the public and District staff, has a positive environmental impact, and meets strategic priorities and goals.

Budget: The 2025 budget for this project is $50,000 for implementation. This project is continuing from prior years. In October 2021, this project was awarded a grant of $1.25M from the Wildlife Conservation Board.

Hazard Tree / Fire Fuels Management — Project #: 2455

Purpose: Protect human health and NID infrastructure from hazard tree and wildfire threats.

Solution: Fire Fuels Reduction, Hazard Tree Removal, Defensible Space, and other associated work.

Priority Score: 76 **Basis for Priority:** To provide water security, increased water supply, and safeguard our source watersheds. Reduces threat to health and safety of the public and District staff and reduces operation and maintenance costs.

Budget: The 2025 budget for this project is $300,000. This project is continuing from prior years.

Selective Logging — Project #: 2699

Purpose: Improve forest health and habitat while decreasing the risk of wildfire.

Solution: Commercial thinning of timber to improve watershed function, protect habitat, and decrease wildfire risk.

Priority Score: 75 **Basis for Priority:** To provide water security, increased water supply, and safeguard our source watersheds. Reduces threat to health and safety of the public and District staff and reduces operation and maintenance costs.

Budget: The 2025 budget for this project is $173,250. This project is continuing from prior years.

Upper Middle Yuba Watershed Forest Restoration: NEPA Planning

Project #: 2697

Purpose: Increase the resiliency of the forest with the goal of protecting reservoir water quality and capacity, unique montane meadow environments and other wildlife habitats in the Sierra Nevada, and popular recreational sites like the Pacific Crest Trail, campgrounds and publicly accessible roads.

Solution: NID, in partnership with the Tahoe National Forest (TNF), will complete forest restoration and fuels reduction treatment plans including surveys, reporting and consultation associated with biological, hydrological, and archaeological resources to complete NEPA on at least 2,000 acres of National Forest Lands within the headwaters region of the Middle Yuba River watershed.

Priority Score: 72 **Basis for Priority:** To provide water security, increased water supply, and safeguard our source watersheds. Reduces threat to health and safety of the public and District staff and reduces operation and maintenance costs.

Budget: The 2025 budget for this project is $290,000.

Upper Yuba Forest Restoration Project — Project #: 2684

Purpose: Reduce wildfire risk and improve forest resilience within the headwaters of the NID water system. This project is part of a Sierra Nevada strategy funded by the Sierra Nevada Conservancy to improve watershed health while protecting long term water supply and ecosystem benefits.

Solution: Remove understory fire fuels, hazard trees, and overly dense small trees on 400 acres owned and managed by NID to reduce the risk of catastrophic wildfire, improve forest ecological health and resilience, protect water supply and quality, and to remove risks to human health and safety in a critical headwater watershed.

Priority Score: 74 **Basis for Priority:** To provide water security, increased water supply and safeguard our source watersheds. Reduces threat to health and safety of the public and District staff, has a positive environmental impact, and meets strategic priorities and goals.

Budget: The 2025 budget for this project is $533,517 for planning, design, and implementation. This project is continuing from prior years. In June 2023, this project was awarded a grant of $1.27M grant from the Sierra Nevada Conservancy.

2025 Capital Improvement Projects
Fund 70 – Information Services

2025 Capital Improvement Project Budget Summary

Fund 70 – Information Services

Project #	Project Title	2025 Budget
2295	Tyler ERP	740,200
	Total 2025 CIP Budget - Fund 70 - Information Services	740,200

Tyler ERP

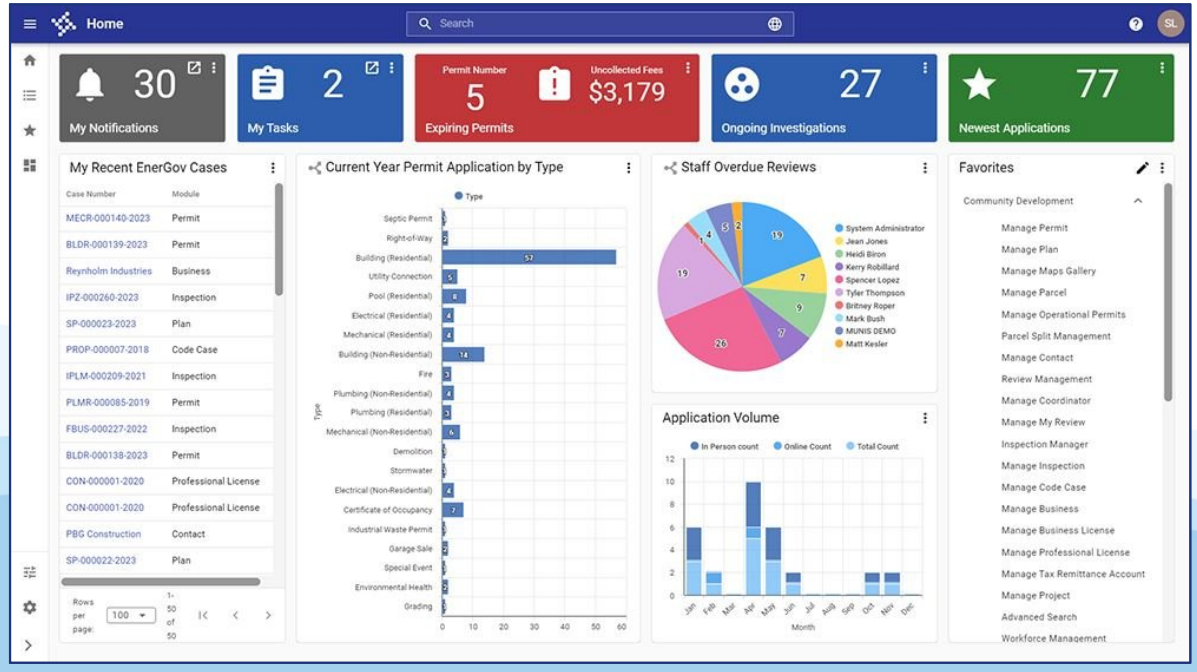
Project #: 2295

Purpose: Streamline processes, improve reporting, provide real-time data, improve collaboration, and help streamline supply chain management.

Solution: Re-implement Tyler ERP project.

Priority Score: 67 **Basis for Priority:** Operational efficiency.

Budget: The 2025 budget of $740,200 is for consulting and the remaining implementation fees.



2025 Capital Improvement Projects
Fund 70 – Engineering

2025 Capital Improvement Project Budget Summary

Fund 70 – Engineering

Project #	Project Title	2025 Budget
2687	ADA Transition Plan	100,000
2689	Charging Stations at District Facilities	800,000
2647	Grass Valley Headquarters Ramp & Stairs Replacement	750,000
	Total 2025 CIP Budget - Fund 70 - Engineering	1,650,000

ADA Transition Plan — Project #: 2687

Purpose: Improve the safety of District-owned facilities and ensure compliance with the Americans with Disabilities Act (ADA).

Solution: Review the District offices and buildings to ensure compliance with the Americans with Disabilities Act (ADA). Develop a plan to make improvements as necessary.

Priority Score: 62 **Basis for Priority:** Meet regulatory requirements, and for the health and safety of employees and the public at District facilities.

Budget: The 2025 budget of $100,000 is for the design, permitting, and construction of the project. The project started in 2024 and is anticipated to be completed in phases through 2029 with estimated total costs of $650,000.

Charging Stations at District Facilities — Project #: 2689

Purpose: The purpose of the project is to meet regulatory compliance.

Solution: Installation of new PG&E service meters and transformers, and installation of two electric vehicle charging stations.

Priority Score: 67 **Basis for Priority:** Meet regulatory requirements.

Budget: The 2025 budget for this project is $800,000 for construction.

Grass Valley Headquarters Ramp & Stairs Replacement

Project #: 2647

Purpose: The existing ramp and stairs are failing and require extensive reconstruction.

Solution: Replace the existing ramp leading to the Operations Department, and the stairs to the main lobby entrance.

Priority Score: 62 **Basis for Priority:** Reduces the threat to health and safety for the staff who utilize the ramp to access the main building, and customers entering the main lobby. Deferral of the project could cause a disruption to service.

Budget: The 2025 budget for this project is $750,000. This includes $25,000 for remaining planning & design expenses and $725,000 for construction. Approximately $75,000 in design expenses will have been incurred through the end of 2024.