

Staff Report

TO: Board of Directors

FROM: Doug Roderick, P.E., Engineering Manager

DATE: April 13, 2022

SUBJECT: Squirrel Creek Siphon Replacement Project (Project #2624)

ENGINEERING

RECOMMENDATION:

Adopt Resolution No. 2022-23 - Squirrel Creek Siphon Replacement Project, approving the following:

1. An amendment to the 2022 Annual Budget that includes the following:
 - a. The approval of a new Capital Improvement Project, the Squirrel Creek Siphon Replacement Project for a total cost not to exceed \$800,000.
 - b. A transfer of \$800,00 from the unassigned balance of Fund 10 to Fund 15.

BACKGROUND:

The Squirrel Creek Siphon is approximately 740 feet long allowing the Rex Canal to cross Squirrel Creek. The Rex Canal also feeds the Quincy Canal. The siphon is comprised of 24-inch diameter steel pipe. A portion of the pipe is buried within the hills on both sides of Squirrel Creek, and approximately 85 feet of the pipe is elevated across the creek. Sections of this facility has been replaced over the years, with the last being in 1988. The siphon is only used during the summer irrigation season and serves 43 active and 16 inactive customers purchasing a total of 173.25 inches of raw water. This equates to approximately \$85,744 in annual revenue.

During the winter of 2021/2022 Operations staff noted surface water flowing down the side embankment on the south side of Rough & Ready Highway at the location of the pipe crossing. Further investigation found an additional leak on the exposed elevated portion of the siphon crossing Squirrel Creek. An investigation of the exposed portion of the pipe indicated its very poor condition. A video of the pipe's

interior revealed corrosion in the lower sections. The Maintenance Department temporarily fixed the leaks on the pipe so that the siphon will be operational for the 2022 irrigation season. No winter water is sold through this facility.

Staff has determined that replacement of the siphon is critical to reduce the probability of future leaks and potential complete failure of the pipe. This project is identified on the project list due to its age and condition and would most likely have been on the 5-year CIP currently under development. This project was not considered a high priority until the recent identification of leaks both in the buried section as well as the elevated pipe section.

Engineering staff is currently developing plans and specifications for replacement of the facility. This construction project is anticipated to go out to bid late July/early August, with award of construction contract in September. Due to significant material delivery lead times, the staff will be looking into the possibility of pre-purchasing the pipe material. Construction of the project is anticipated to begin in October of 2022 and is estimated to cost \$800,000. The project would be completed prior to the beginning of the 2023 irrigation season.

BUDGETARY IMPACT:

The project is currently not budgeted. Estimated project costs is \$800,000. The proposed action will require a budget amendment to transfer \$800,000 from the unassigned balance of Fund 10 to Fund 55. The cost estimate will be refined as design is completed. If this action is approved, the projected fiscal year-end unassigned balance of Fund 10 will be reduced from \$9,318,836 to \$8,518,836.

The total expenditure for Fund 15 will be increase from \$6,858,000 to \$7,658,000.

Attachments: (3)

- Resolution 2022-23
- CIP Project Information Packet
- Photos

DR



RESOLUTION NO. 2022-23
OF THE BOARD OF DIRECTORS OF THE NEVADA IRRIGATION DISTRICT

Squirrel Creek Siphon Replacement Project

WHEREAS, Nevada Irrigation District (“NID”) owns and operates the Squirrel Creek Siphon, which is part of the Rex Canal.

WHEREAS, the Squirrel Creek Siphon is need of replacement due to its current condition and age.

WHEREAS, a budget amendment for the 2022 Annual Budget is necessary for construction of the Squirrel Creek Siphon Replacement Project to occur following the 2022 irrigation season in order to have the new facility operational by the beginning of the 2023 irrigation season.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of Nevada Irrigation District:

1. The Board of Directors hereby approves the the following amendment to the 2022 Annual Budget:
 - a. The approval of the Squirrel Creek Siphon Replacement Project in Fund 15 for a total cost not to exceed \$800,000.
 - b. The transfer of \$800,000 from the unassigned balance of Fund 10 to Fund 15.

2. The Board of Directors hereby authorizes the General Manager to execute the documents for the design of this project. The construction contract will be proposed to the Board at a later date.

* * * * *

PASSED AND ADOPTED by the Board of Directors of the Nevada Irrigation District at a regular meeting held on the 13th day of April 2022, by the following vote:

AYES:	Directors:
NOES:	Directors:
ABSENT:	Directors:
ABSTAINS:	Directors:

President of the Board of Directors

Attest:

Secretary to the Board of Directors



CIP Project Information Sheet 2022 Annual Budget

Project Name: _____ **Project No.:** _____

Dept. _____ Program: _____ Priority Ranking: _____

Facility: _____ Facility #: _____ Division #: _____

Project Manager: _____ Constructed by: _____

New Construction: _____ Replacement: _____ Upgrades: _____ Multiple Phases: _____

CEQA: _____ Permits: _____ ROW: _____

Project Purpose: (Problem Statement)

Project Description: (Proposed Solution)

Basis for Priority:

Project Financial Summary:

Project Estimate: _____ Total Spent to Date: _____ Current Year Budget: _____

Anticipated Expenses to End of Year: _____ Amount Remaining in Current Year Budget: _____

Expenditures:

Expense	Prior Years Actual	Amendments Carryovers/Encumbrances	2022	2023	2024	2025	2026	TOTAL
Consulting/Studies								
Design/Engineering								
Permitting/CEQA								
Construction								
Right of Way								
Other:								
Total:								

Funding Sources

Source	Prior Year Actual	Amendments Carryovers/Encumbrances	2022	2023	2024	2025	2026	TOTAL
Total:								

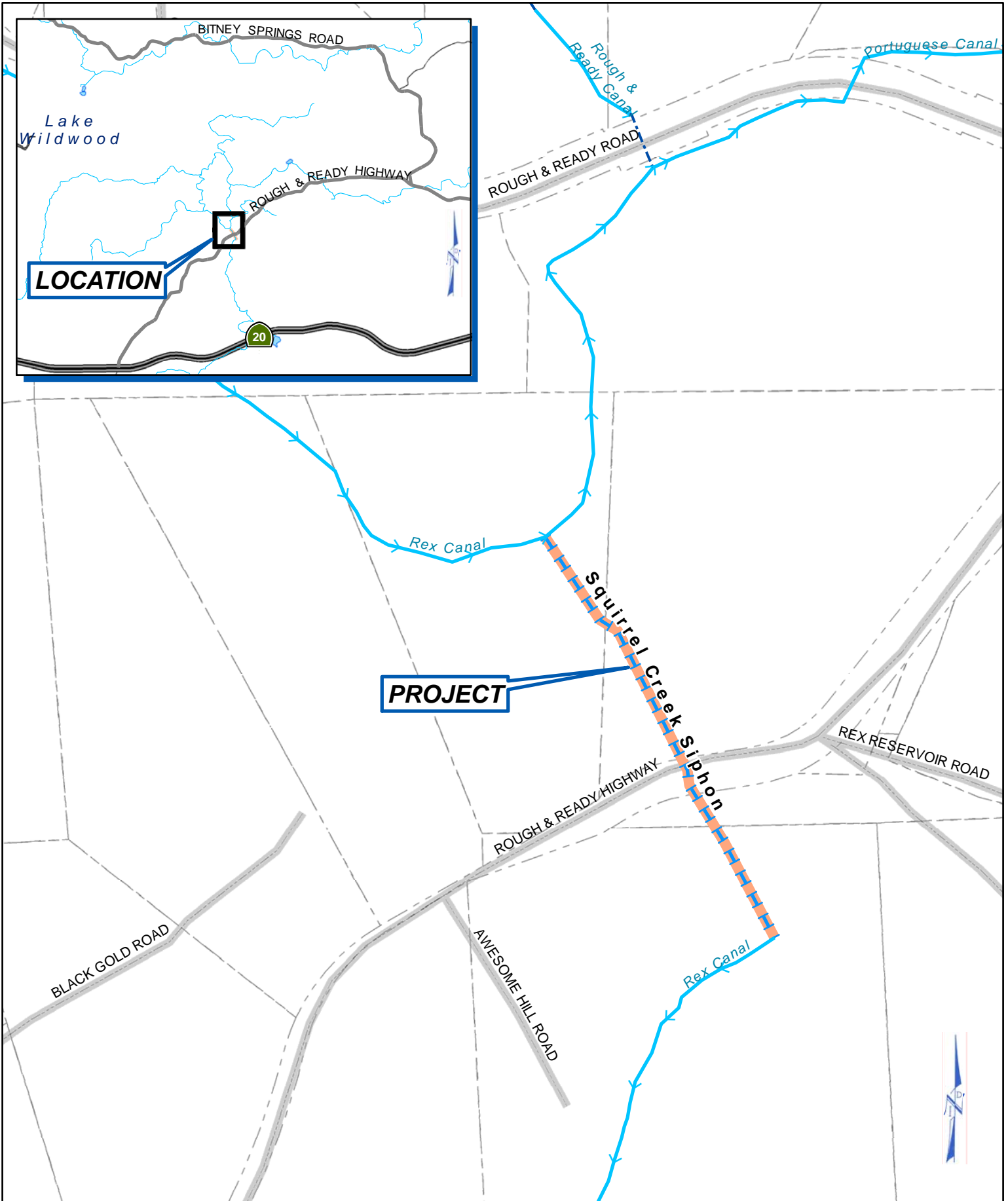
Notes:

Capital Improvement Project Scoring Sheet

Project Name

Project No.

Criteria #	Scoring	Score
1. Capital Costs	10 Points - Lower Future Capital Costs 5 Points - No Impact 0 Points - Higher Future Capital Costs	
2. Annual Operation and Maintenance Costs	10 Points - Lower Operating Costs 5 Points - No Impact 0 Points - Higher Operating Costs	
3. Increased Revenue Potential	10 Points - Higher Revenues 5 Points - No Impact 0 Points - Lower Revenues	
4. Health and Safety	10 Points - Reduces Threat/Impact to Health and Safety 5 Points - No Impact 0 Points - Increases Threat/Impact to Health and Safety	
5. Environmental	10 Points - Improves/Reduces Impacts to Environment 5 Points - No Impact 0 Points - Increases Threat/Impact to Environment	
6. Distributional or Hydro Generation Effects	10 Points - Project has Regional Benefit or improves generation 5 Points - Project has Limited Benefit (Neighborhood) or improved generation 0 Points - No Impact	
7. Critical Infrastructure and Risk to Service Disruption	10 Points - Deferral will Significantly Impact Disruption to Service 5 Points - Deferral will Moderately Impact Disruption to Service 0 Points - No Additional Impacts to Disruption to Service if Deferred	
8. Board Strategic Plan/Goals	10 Points - Meets Strategic Plan/Goals Set by the Board 5 Points - Important Project but not Critical 0 Points - Does not Meet Strategic Plan/Goals of the Board	
9. Certainty of Project Funding	5 Points - Funded by Existing Revenue Source 2-3 Points - Requires Outside Funding with High Probability of Obtaining 0 Points - Requires Outside Funding with Low Probability of Obtaining	
10. New Capital Asset will have associated revenue that offsets maintenance costs	5 Points - Asset will have Associated Revenue to Offset Depreciation and Maintenance Costs 2-3 Points - Asset will have Associated Revenue to Offset Some Depreciation and Maintenance Costs 0 Points - Asset will have no change to Associated Revenue	
11. Improves and/or increases level of service	10 Points - Project Improves Level of Service 5 Points - Project Maintains Existing Level of Service 0 Points - Project Impacts Existing Level of Service	
Max score 100	TOTAL PRIORITIZATION SCORE	



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PROJECT

LOCATION

SQUIRREL CREEK SIPHON



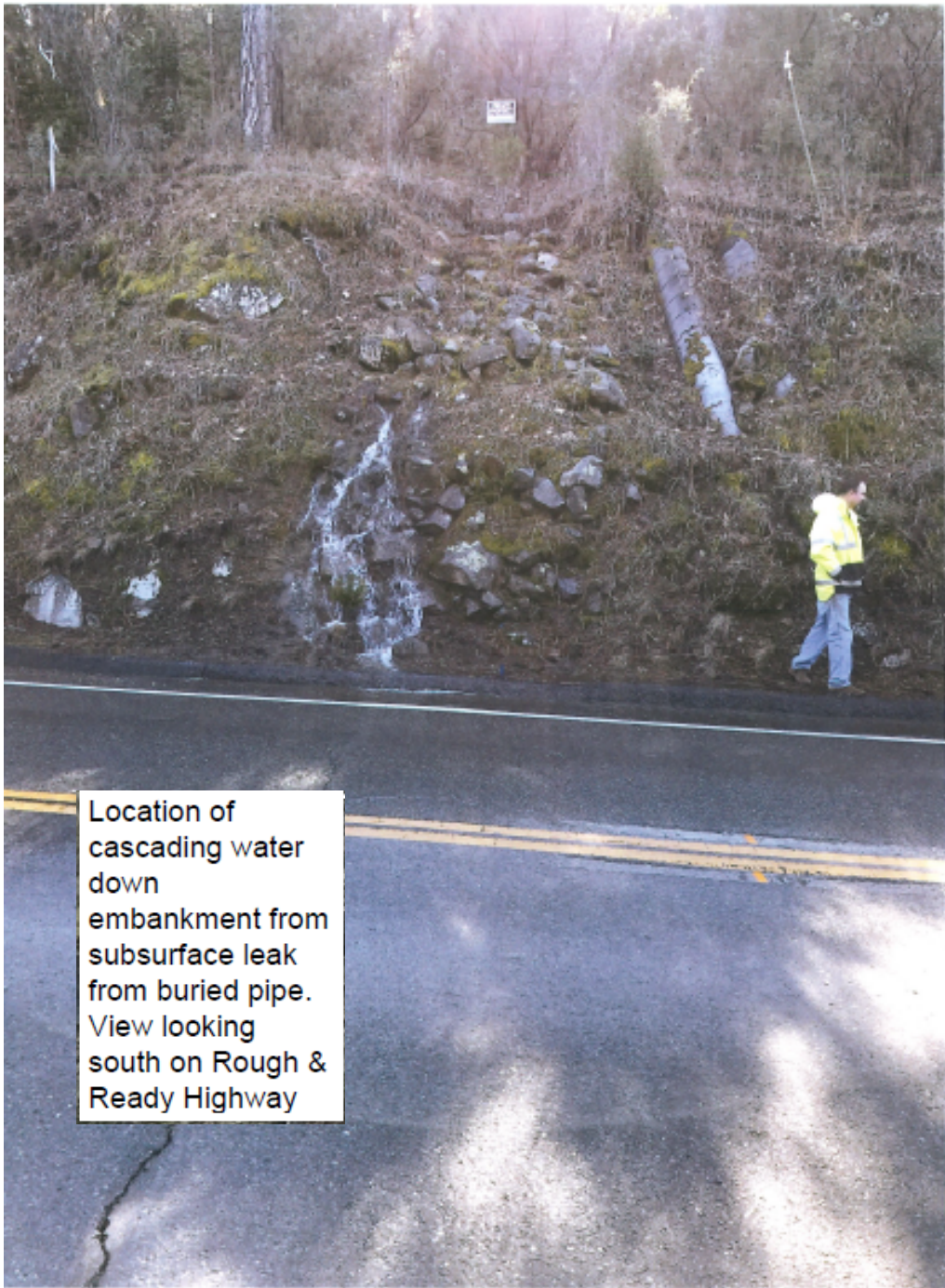
Date: 3/8/2022
 Drawn By: L. HAMMER

NEVADA IRRIGATION DISTRICT
 NEVADA COUNTY -- PLACER COUNTY
 GRASS VALLEY, CALIFORNIA

Scale: 1" = 200' @ 8.5x11
 Sheet: 1 of 1



Pipe Leak on Aerial Crossing



Location of cascading water down embankment from subsurface leak from buried pipe. View looking south on Rough & Ready Highway



Aerial Pipe Crossing - Severe corrosion and failed pipe wrap/covering







NO POSTS





