

Idaho Department of Environmental Quality



How To Fund A Reuse Project
With The Help Of Your Wastewater Operator
Aimee Hill, DEQ Water Quality - Grants and Loans



What is the Clean Water State Revolving Fund (CWSRF)?



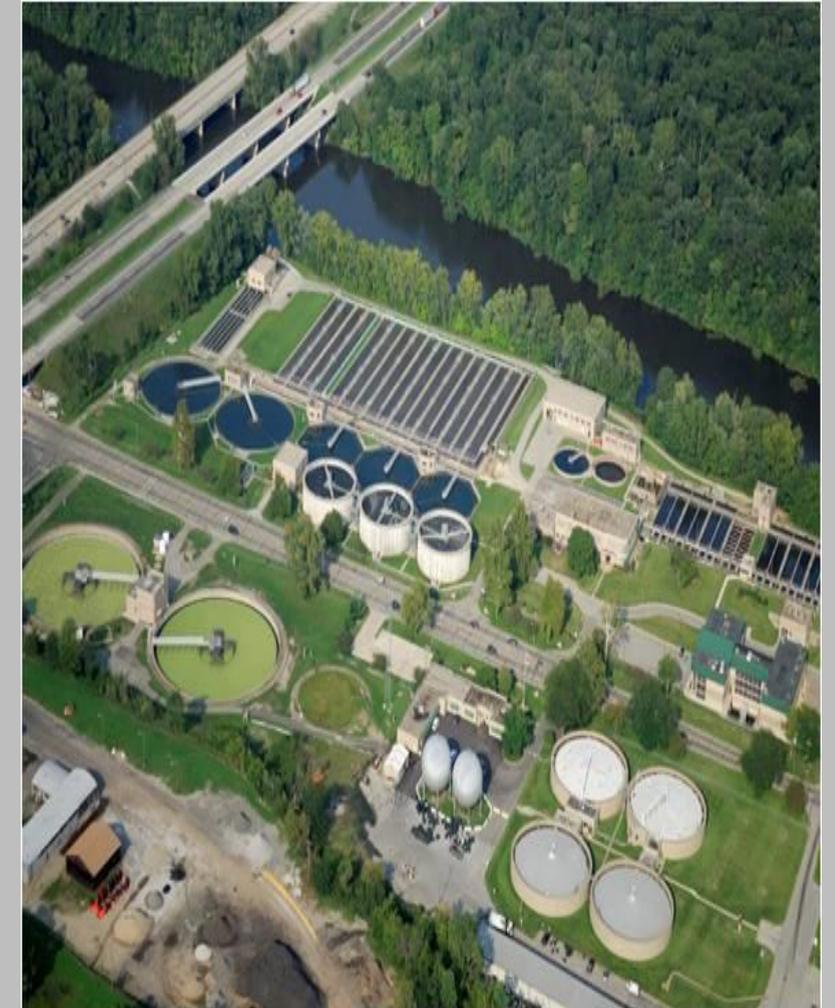
20%
State
Match

Federal
Grant



CWSRF
Loans

Loan
Repayments



Who Do We Fund?

Wastewater systems

- Government entities and nonprofit corporations that have authority to collect, treat, or dispose of sewage or industrial wastewater.

Projects that we fund

- Planning Grants
- Construction projects
- Nonpoint sponsored projects



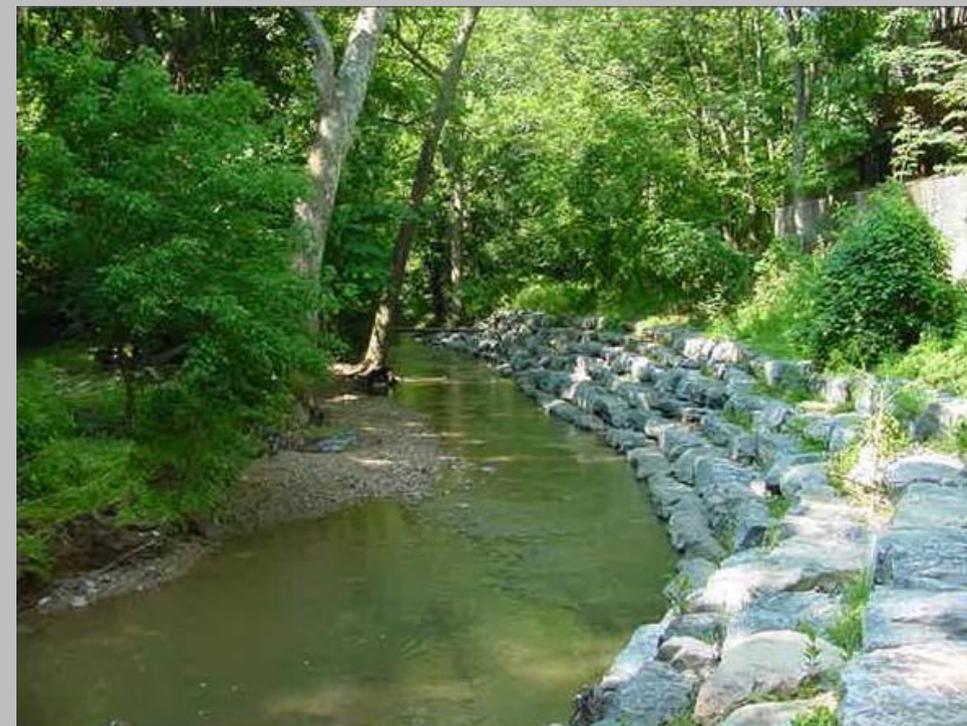
CWSRF Eligible Project Types

- Wastewater treatment plant upgrades
- Sewer collection systems
- Pumps and equipment
- Agricultural BMPs
- Conservation easements
- Wetland restoration
- Decentralized wastewater treatment
- Stormwater management
- Permeable pavement and green streets



CWSRF Eligible Project Types

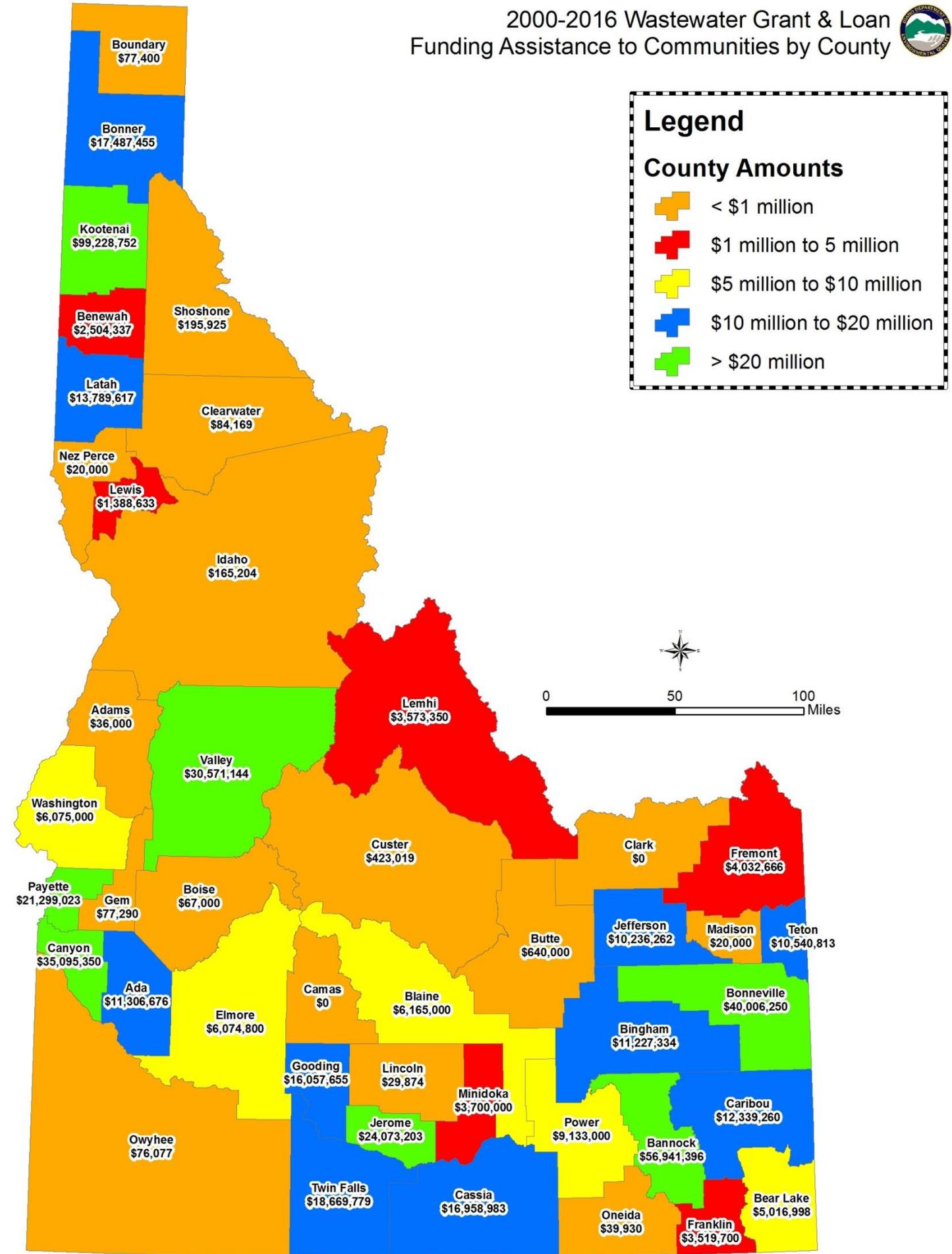
- Energy-efficiency upgrades at POTWs
- Alternative energy for a POTW
- Water reuse
- Land acquisition partnerships
- Landfill leachate collection/liners
- Planting trees and shrubs
- Contaminated site cleanup
- More.....





How Much Is Available?

\$62 million - 2017
\$90 million - 2018



Serious Savings



Cost Savings of CWSRF Below-Market Interest Rates						
	CWSRF Rate (20 year term)					
		0.0%	1.0%	2.0%	3.0%	
Market Rate	5.0%	38%	31%	24%	16%	
	6.0%	43%	36%	30%	23%	

At a market rate of 6.0%, a 3.0% CWSRF loan on a \$100,000 project is equal in savings to a \$23,000 grant and a \$77,000 loan at market rates.

Flexible Repayment Options

- Identifying a repayment source can be challenging
- CWSRF assistance recipients have the flexibility to access income from many sources as repayment, including:
 - Usage-based wastewater bill charges
 - Special assessments
 - Homeowner association assessments
 - Stormwater district fees
 - Farming revenues
 - Non-profit membership fees
 - Home owner fees
 - Landfill fees
 - For profit company revenue
 - Property tax revenue

Funded Project Examples

Granite Reeder Sewer and Water District

Presented by Chris Westerman, DEQ Coeur d'Alene

City of Ashton

Presented by Marvin Fielding, Keller Associates

DEQ awards \$4.9 million low-interest wastewater construction loan to city of Ashton

Friday, March 17, 2017

BOISE – The Idaho Department of Environmental Quality (DEQ) today announced the award of a \$4.9 million low-interest wastewater construction loan to the city of Ashton in Fremont County.

The funding will be used to repair or replace the collection system and to make improvements to the treatment system. Treatment improvements include replacing aerators, constructing a lined storage pond and pump station, repairing a chlorine contact basin, and implementing land application.

DEQ is authorized by state law to make loans to assist in the construction of public wastewater systems. Since the annual cost of wastewater service for residential customers exceeds one and one-half percent of the median household income, the city of Ashton is able to qualify for a disadvantaged loan, which carries very favorable repayment terms.

The loan from DEQ's State Revolving Loan Fund, which is capitalized annually by grants from the Environmental Protection Agency, carries a simple 1.75% interest rate, is payable over 30 years, and has \$786,670 of principal forgiveness. The favorable loan terms represent about a \$3,752,156 savings to the community when compared to average costs for municipal general obligation debt issuances.

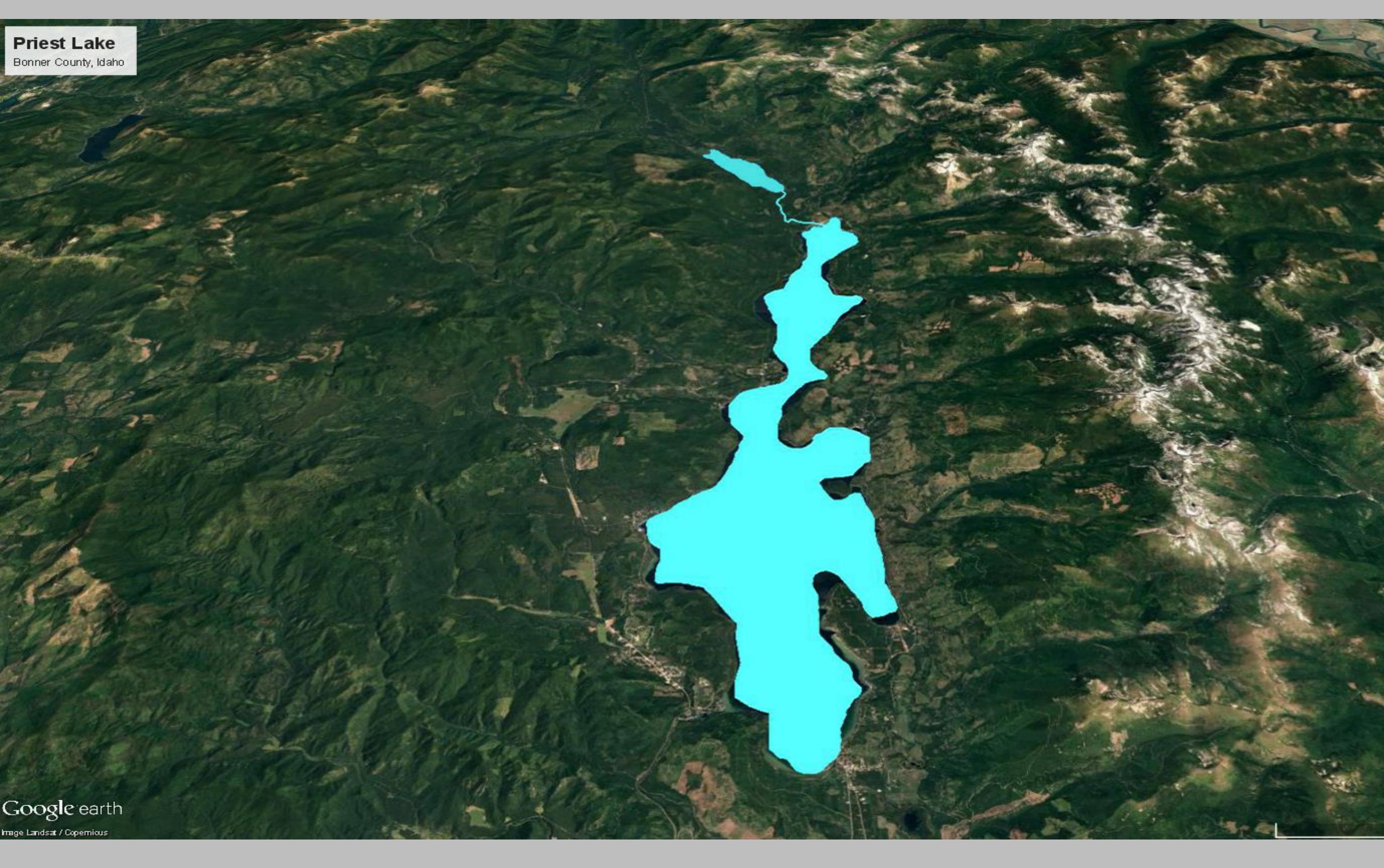
Granite-Reeder Sewer and Water District

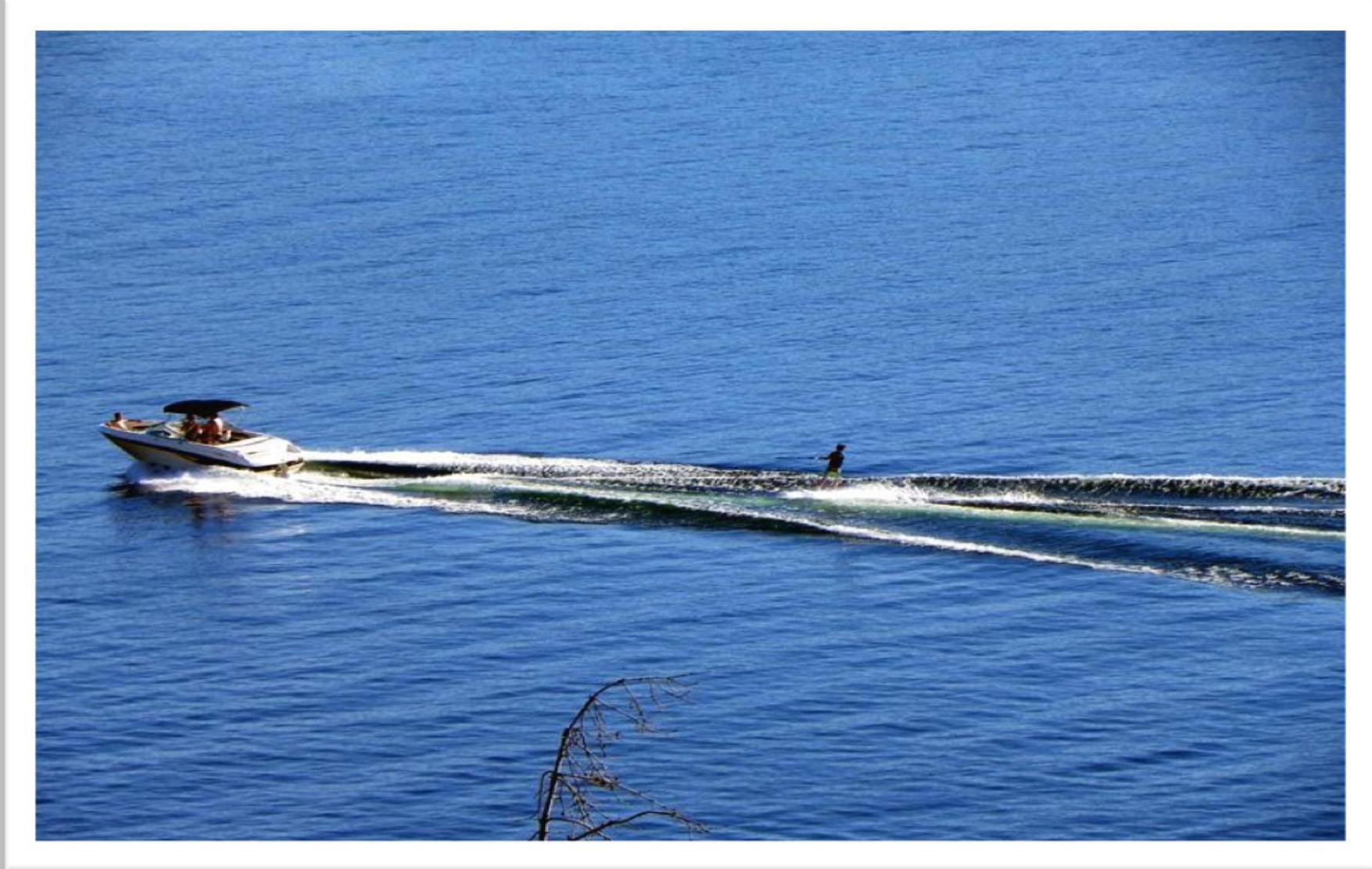


*Chris Westerman, Engineer
DEQ Coeur d'Alene Regional Office
May 18, 2017*



Priest Lake
Bonner County, Idaho





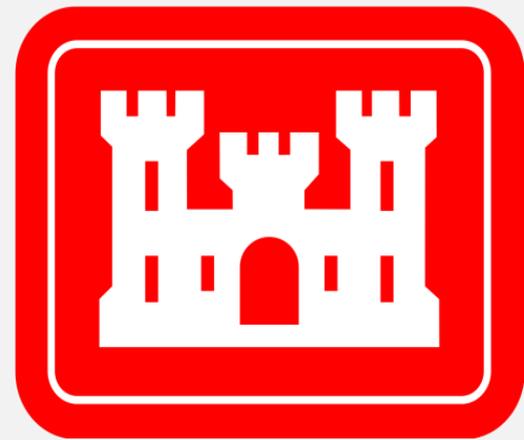
Recreational Opportunities Abound

Project Introduction

- Early 1980's – Granite Reeder Water & Sewer District



Project Introduction



Agency	Grant/Loan	Amount
Idaho DEQ	SRF Loan	\$7,022,387
US EPA	STAG	\$2,226,000
US ACE	595 Grant	\$547,500
US EPA	SAAP Funds	\$291,000
USDA	Rural Development Grant	\$470,000
USDA	Rural Development Loan	\$1,097,000
Panhandle State Bank		\$135,000
Total		\$11,788,887



Granite-Reeder SWD

- Two lined, aerated WW Lagoons
- 2.3 acres
- Total Volume = 16 MG
- Adjustable intake



Granite-Reeder SWD

- Float set on the intake pump



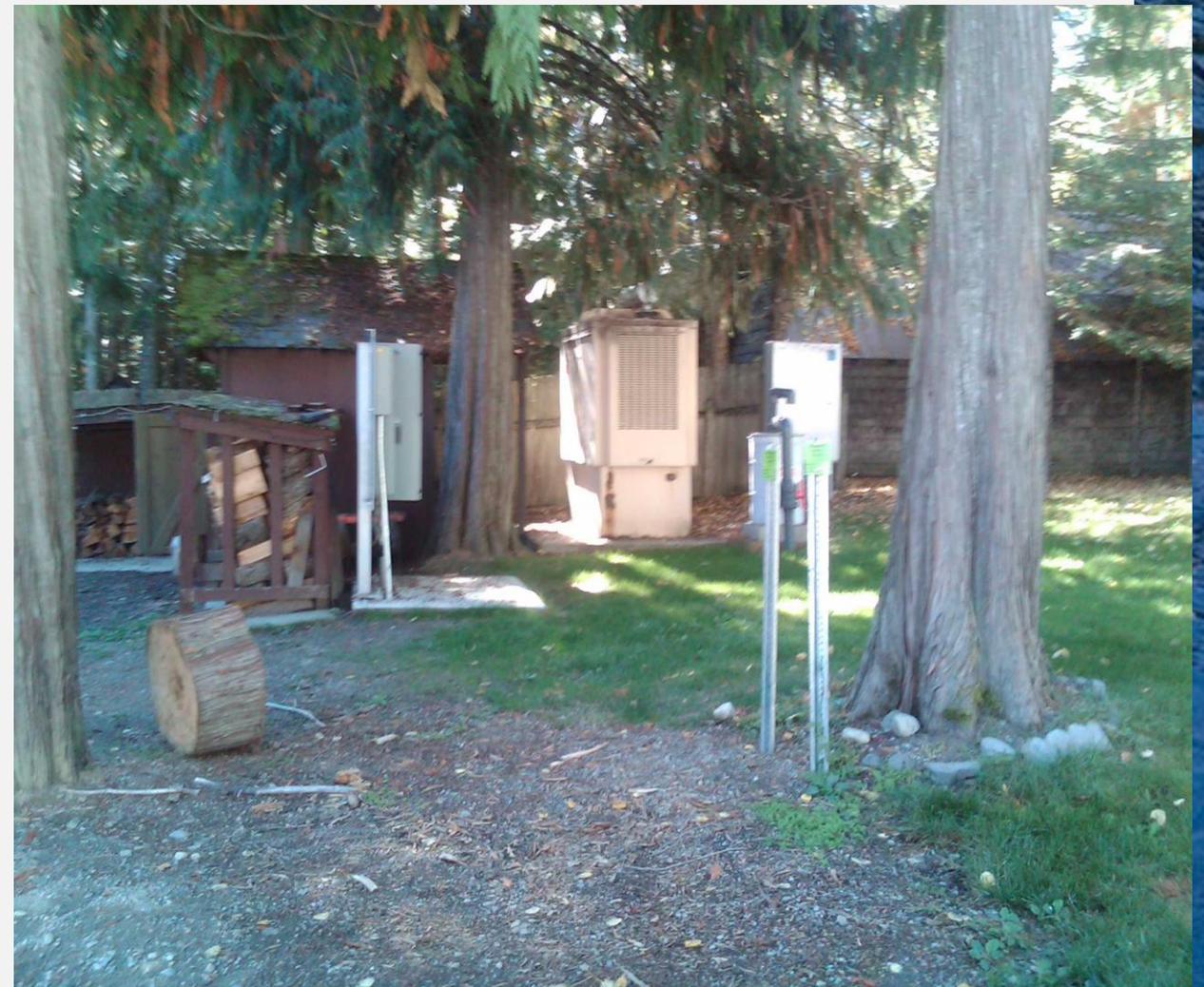
Granite-Reeder SWD

- Main lift stations
- Carbon filters
- Alarms and telemetry



Granite-Reeder SWD

- Individual lift stations
- Grinder pumps



Granite-Reeder SWD



Granite-Reeder SWD







Project Introduction

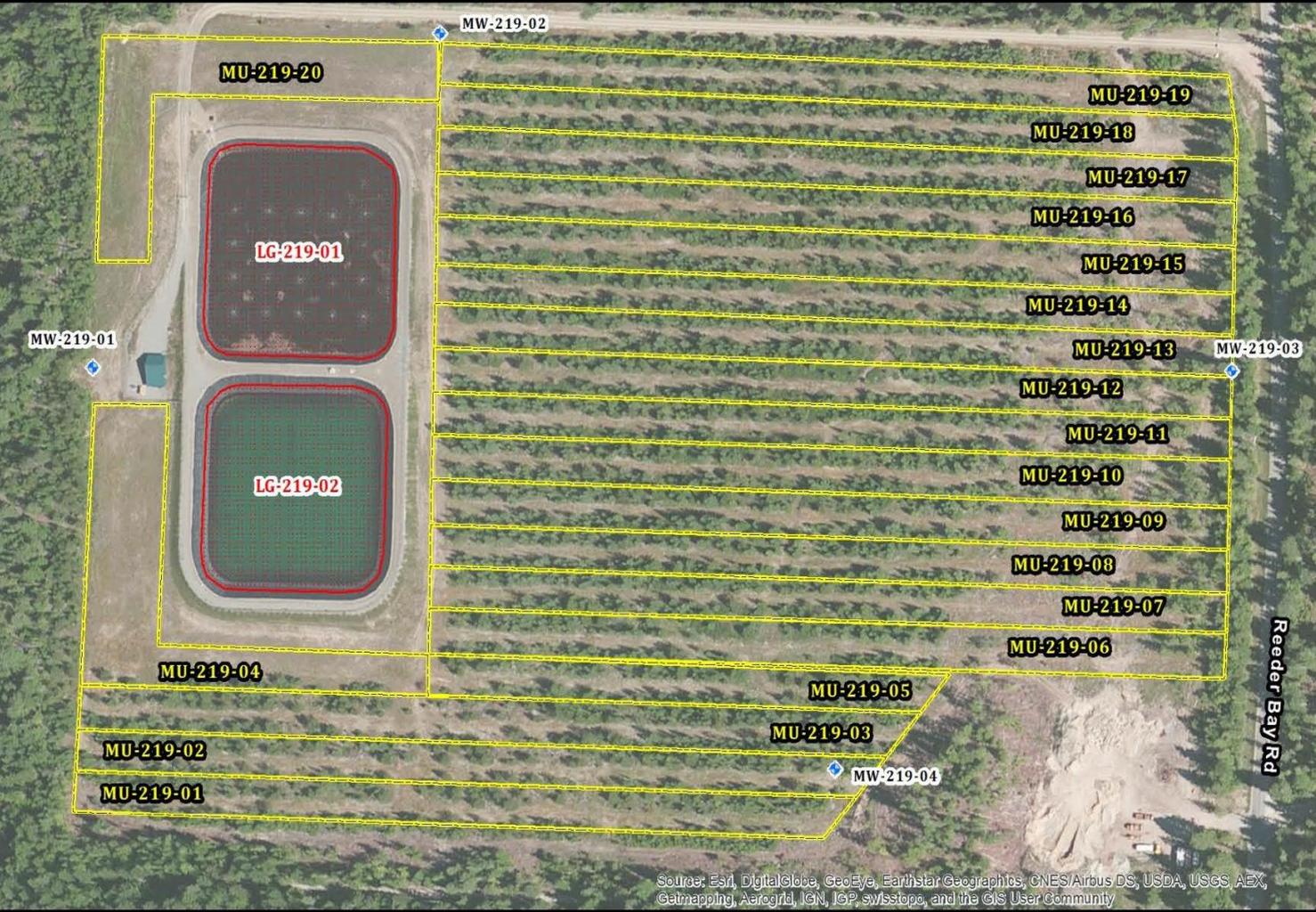
- Irrigation laterals to reuse site



Permitting

- LA-000219-01 issued in March 2010
- Irrigation in 2012
- Public comments received during renewal
- M-219-02 issued on June 29, 2016
 - Class C recycled water
 - 20 individual management units
 - Forested/silviculture site
 - Ground water monitoring

Permitting



Permitting – Public Response

- Clarifications
- Excluding hydraulic loading rate limits
 - Unique to the CDA office
 - “Substantially at or below the irrigation water requirement”
- Removed phosphorus monitoring
 - Low loading rates
 - Soil buffering capacity
 - Horizontal buffers to Granite Creek and Priest Lake
- Ground water monitoring frequency
 - To capture sufficient data to make a determination

Challenges

- Public interest in the project
- Land acquisition (required an act of Congress)



Successes

- Maintenance building
- Operator involvement during construction
- Cooperation of stakeholders





KELLER
associates

Get there!

City of Ashton Wastewater Improvements



*Marvin Fielding, P.E.
Project Manager*

*Keller Associates
May 18, 2017*



KELLER
associates

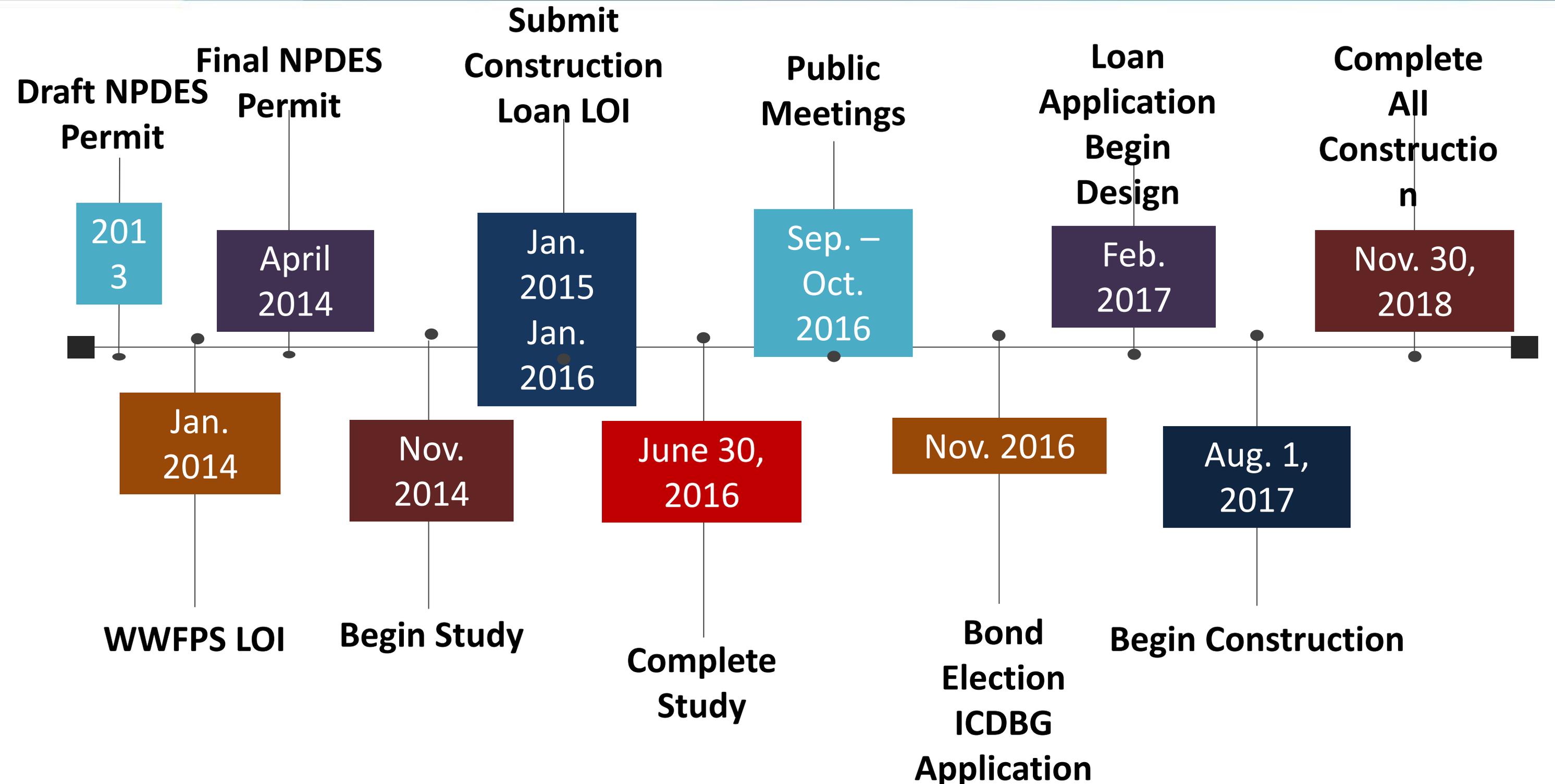
Get there!

System Overview

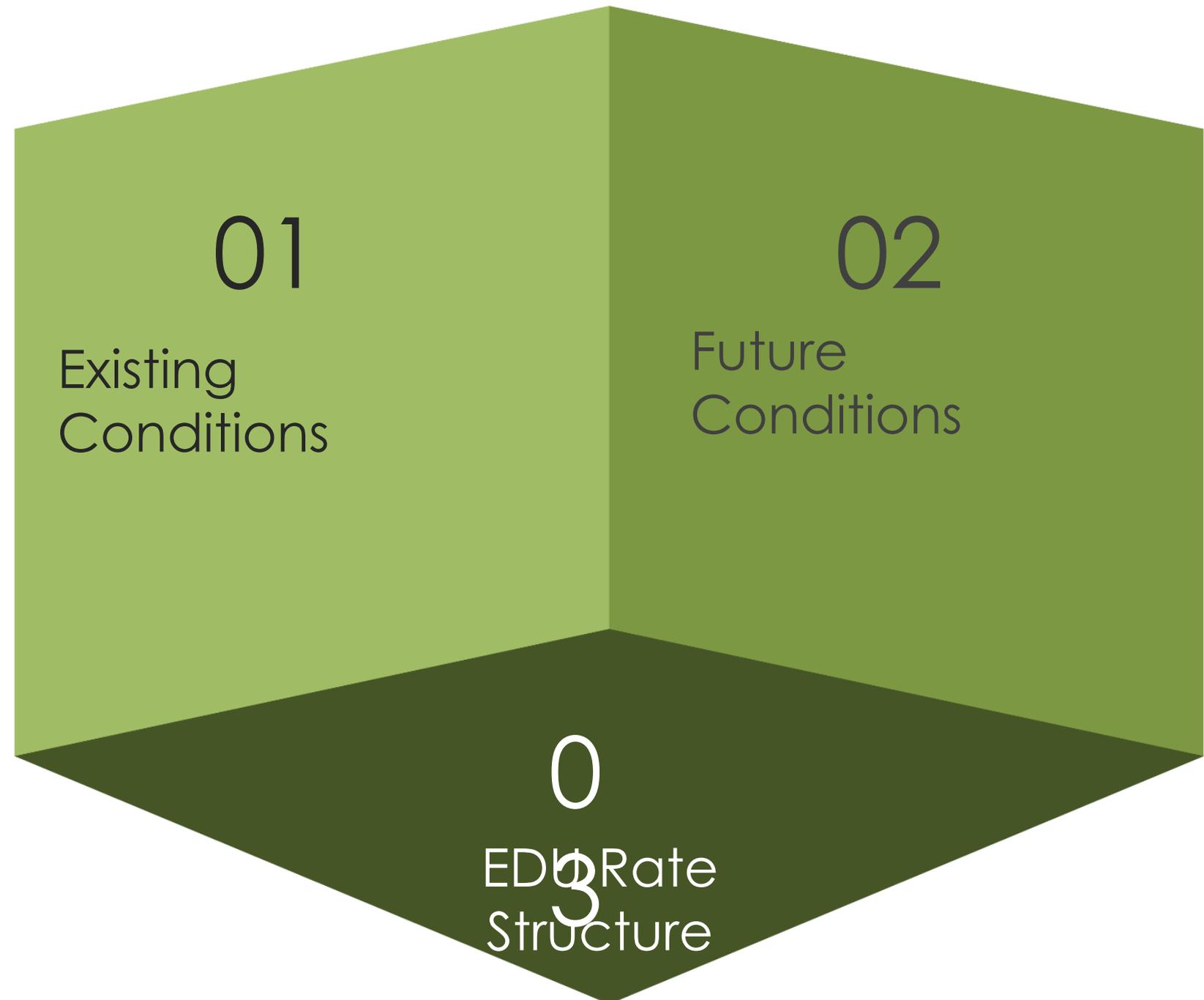


- Population 1,100
- 9 miles of sewer
- 96,000 gpd Average Daily Flow
- Four lagoons, two aerated
- Summer-time reuse
 - 77 acre site
- Winter –time discharge
 - NPDES permit
 - 2.92 mg/L total Ammonia Limit

Project Schedule



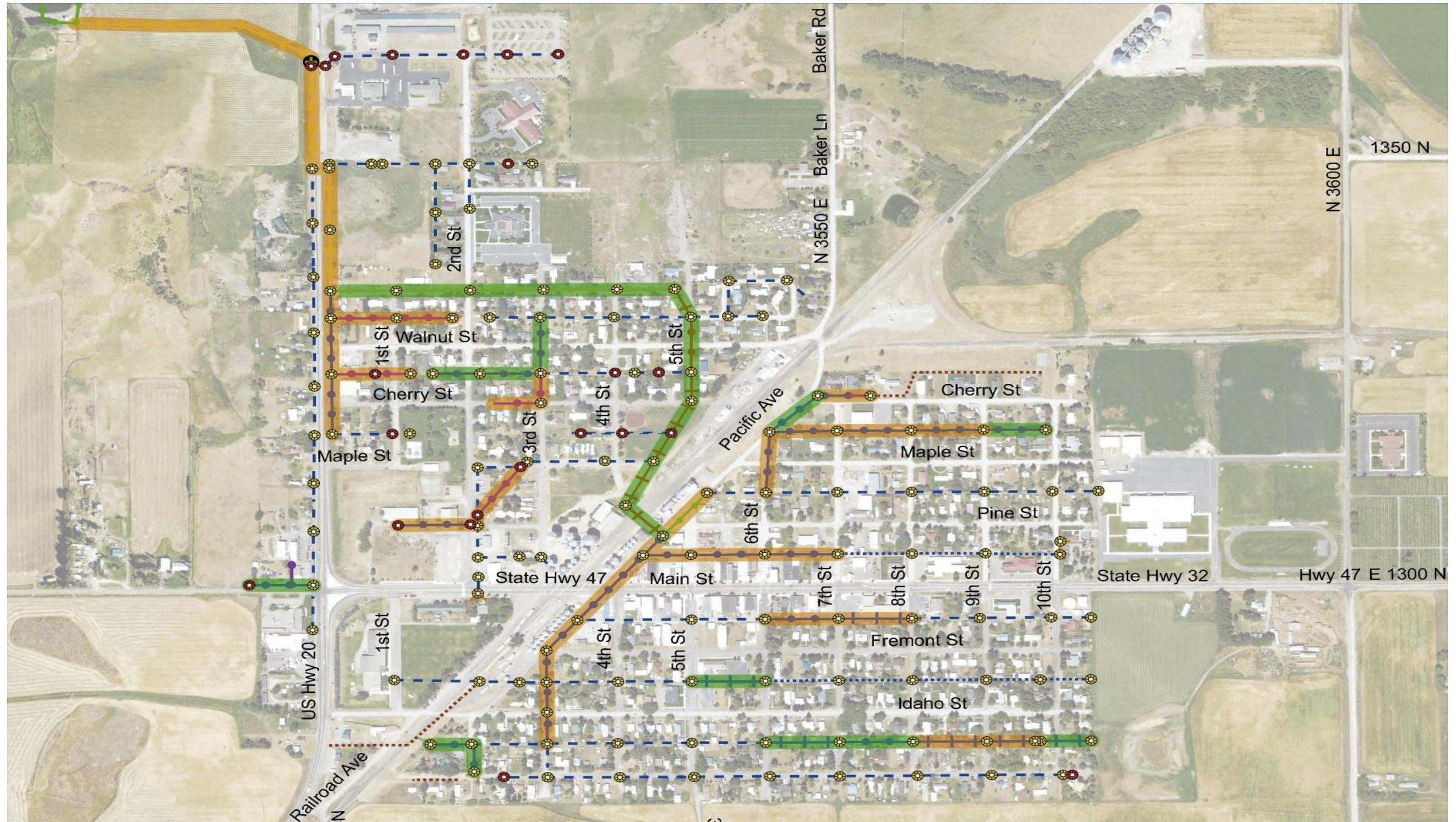
- Operator Records
 - Average Daily Flow
 - Maximum Day
 - Peak Hour
 - BOD₅ and TSS Monitoring
- Population Projections (City input)



Collection Alternatives

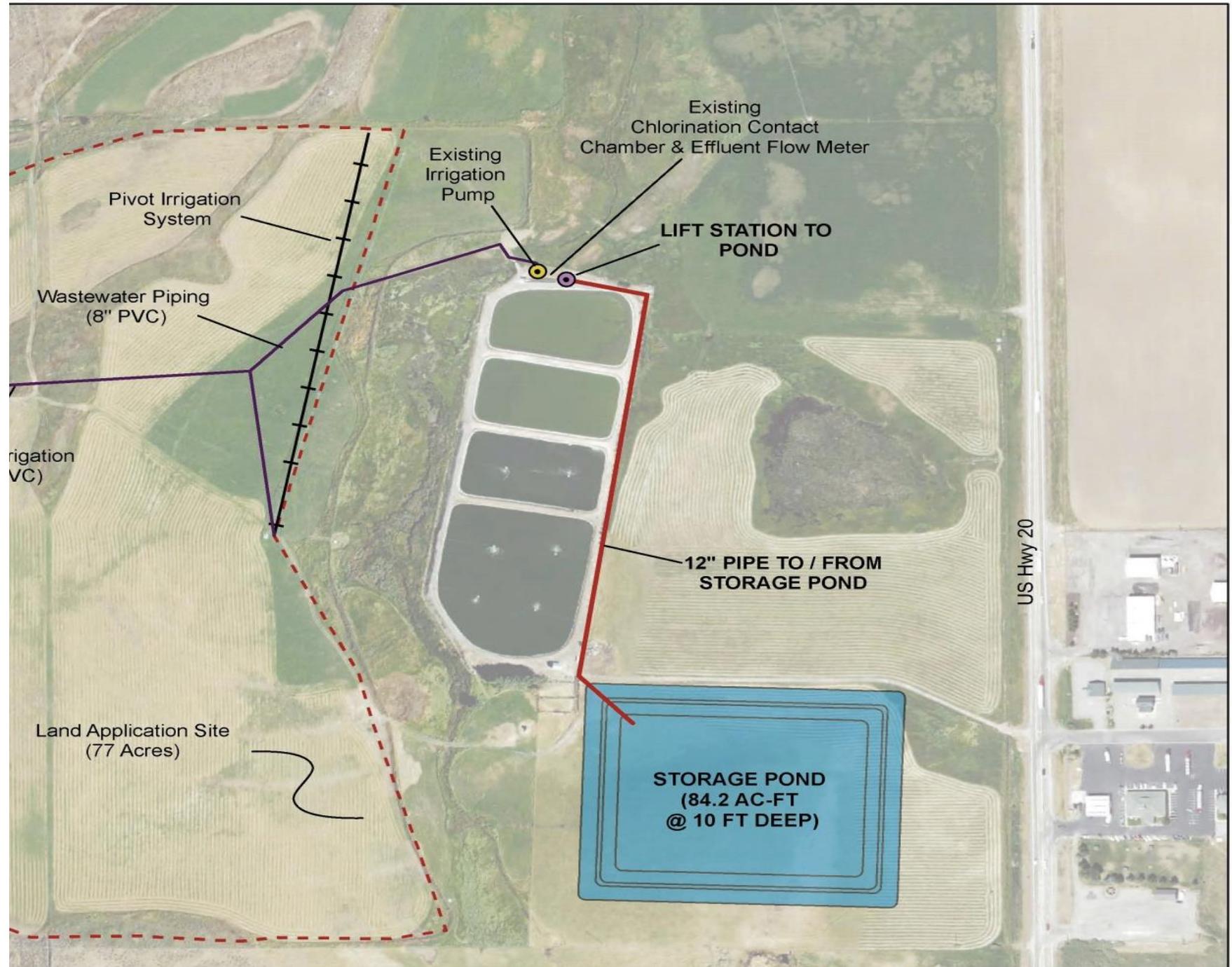


Collection Alternatives

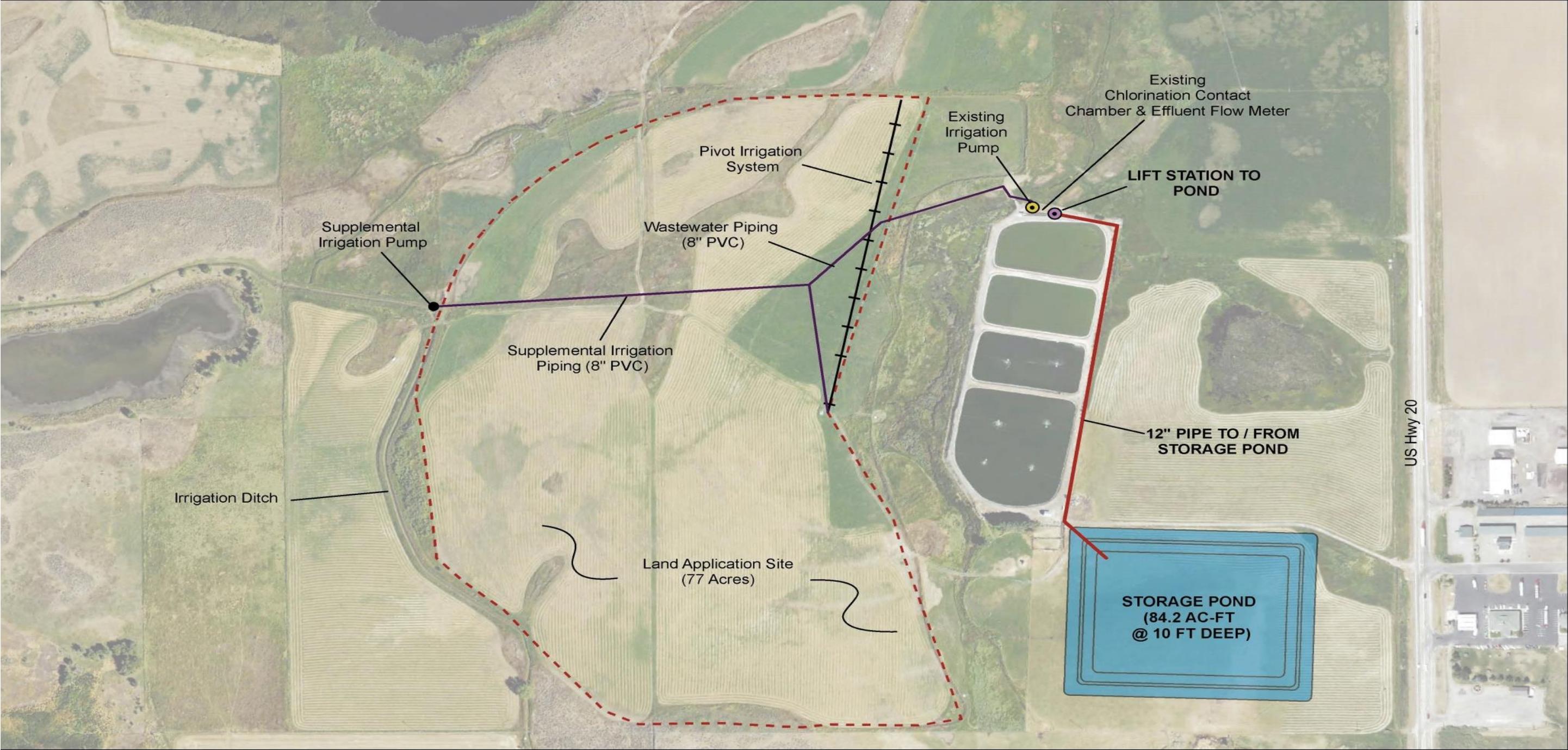


WWTP Alternatives

- Change point of discharge
- Snowmaking
- Enhance treatment
- Winter storage/reuse



WWTP Improvements



Capital Improvement Plan Summary

ID#	Item	Primary Purpose	Total Estimated Cost (2016)
Priority 1 Improvements (0-5 years)			
<i>Wastewater Collection System</i>			
1.1	Replacement of Known Problem Areas	Maintenance/Repair	\$ 1,000,000
<i>Wastewater Treatment</i>			
1.2a	Storage Pond and Pump Station	Compliance	\$ 3,815,000
1.2b	Biosolids Removal	Compliance, Operations	\$ 324,000
1.2c	Surface Aerators	Odor Control	\$ 116,000
1.2d	Control Structure Improvements	Operations	\$ 56,000
1.3e	Disinfection System	Compliance, Operations, Redundancy	\$ 48,000
1.3f	Effluent Screen	Operations	\$ 30,000
Total Priority 1 Improvements			\$ 5,389,000

Funding Alternatives

DEQ SRF

- 30 year loan @ 1.75%
- Principle forgiveness of \$274,227 FY2016
- due to timing, a LOI will need to be submitted for FY2017 funding cycle

USDA-RD

- 40 year loan @ 1.875%
- 75% loan, 25% grant
 - Grant might be higher pending on USDA funds

ICDBG

- Up to \$500,000 grant
- Application due in November
- Two separate applications
 - Collection System Improvements
 - WWTP Improvements

USACE

- Partner with others
 - Least likely funding option

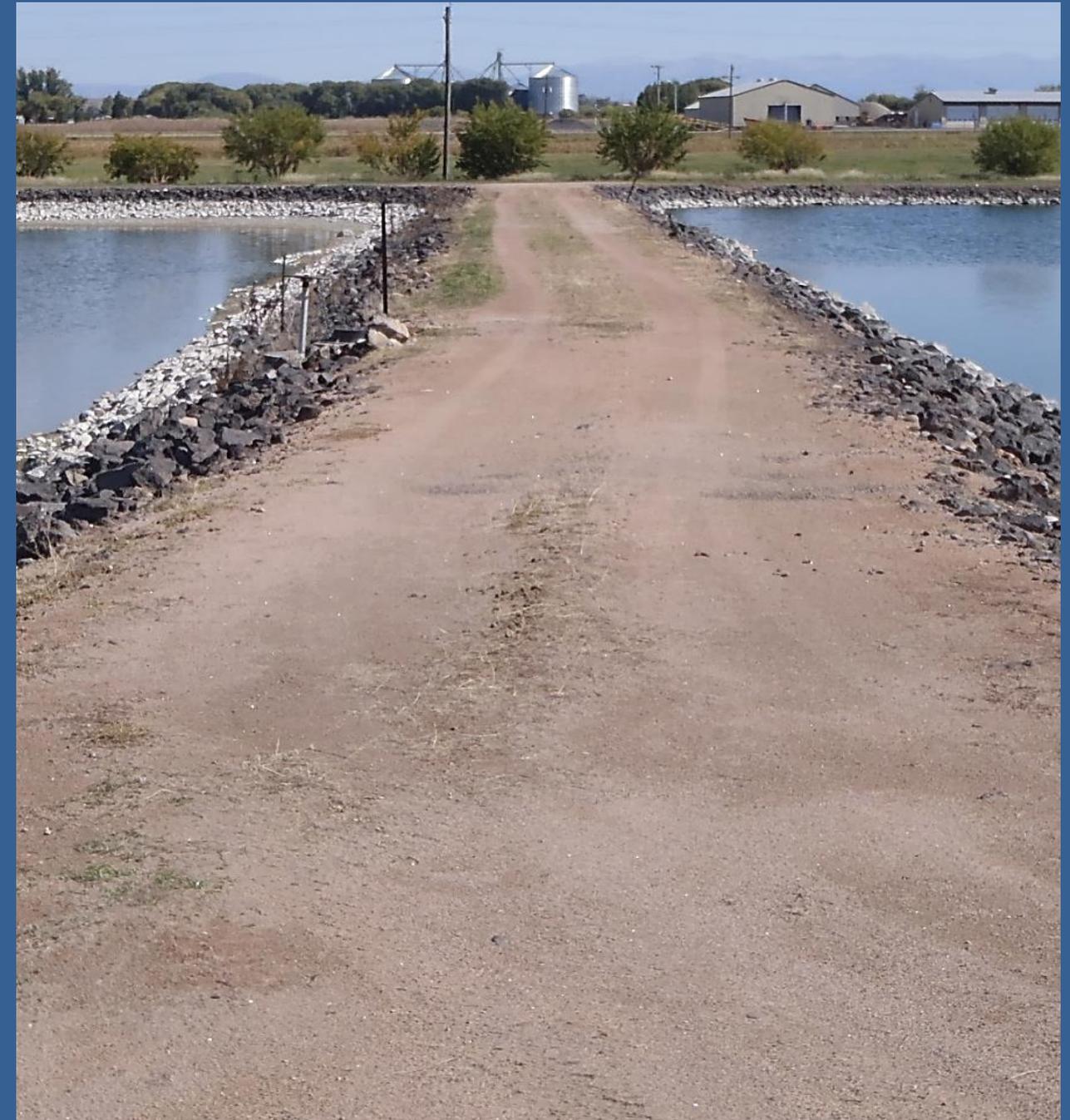
- Need Grant Administrator to put together best funding combination of the above options

Rate Analysis

Total Project Cost	\$5,389,000
Avg. EDU's	703
Current User Rate	\$39.13/mo.
Proposed User Rate (PR1)	\$57.83/mo. (\$18.70/mo. Increase)
Priority 1 & 2 Improvements (Options)	
Proposed User Rate (PR1 & 2, financed)	\$65.00/mo. (\$25.87/mo. Increase)
Proposed User Rate (PR1 & 2, self funded)	\$69.70/mo. (\$30.57/mo. Increase)
Potential Reduction for Each \$500,000 Additional Grant	\$2.12/mo.

Next Steps (2016)

- Draft Study to DEQ with recommended alternative
- Public Hearing
- 30-day Comment Period
- Council Selects Alternative
- Complete EID
- Bond Election



Contacts

DEQ State Office – Water Quality Grants and Loans

Aimee Hill (208) 373-0556

DEQ Coeur d’Alene Regional Office

Chris Westerman (208) 769-1422

Keller Associates and City of Ashton

Marvin Fielding (208) 542-6120

www.deq.idaho.gov/water-quality/grants-loans/



Questions

Visit our booth for more information!

www.deq.idaho.gov/water-quality/grants-loans/

