



Celebrating 50 years of Serving our Community
1967 - 2017

Mesachie Lake Sewer Upgrades and South Shore Sewer Project

Agenda:

- Introduction of CVRD staff
- Overview of the Mesachie Lake Sewer Upgrades and the South Shore Sewer Project
- Questions from Residents
- Clicker Questions

Other forms of Government vs Regional Districts

Other forms of Government

- Other forms of government have the flexibility to move money from one system to another
- Money can be moved to fund upgrades or emergency repairs

Regional District

- The money to operate each system (water or sewer) is funded from the customers of the particular system
- There is NO flexibility to move money from one system to another

The CVRD operates 16 Sewer Systems and 19 Water Systems

For each system...



Why does the Mesachie Lake Sewer System need Upgrades?

The system is over
70 years old

It pre-dates permits
and registrations
and does not comply
with today's
standards

Regular failures of
the Mesachie sewer
system is an
environmental and
public health risk

And...

The drinking water well is located in the middle of the failing sewer system



Signs of Failure



Root intrusion
creating major
pipe blockage



More Signs of Failure

Bear Lake Park



Sewage surfacing to
the ground

More Signs of Failure

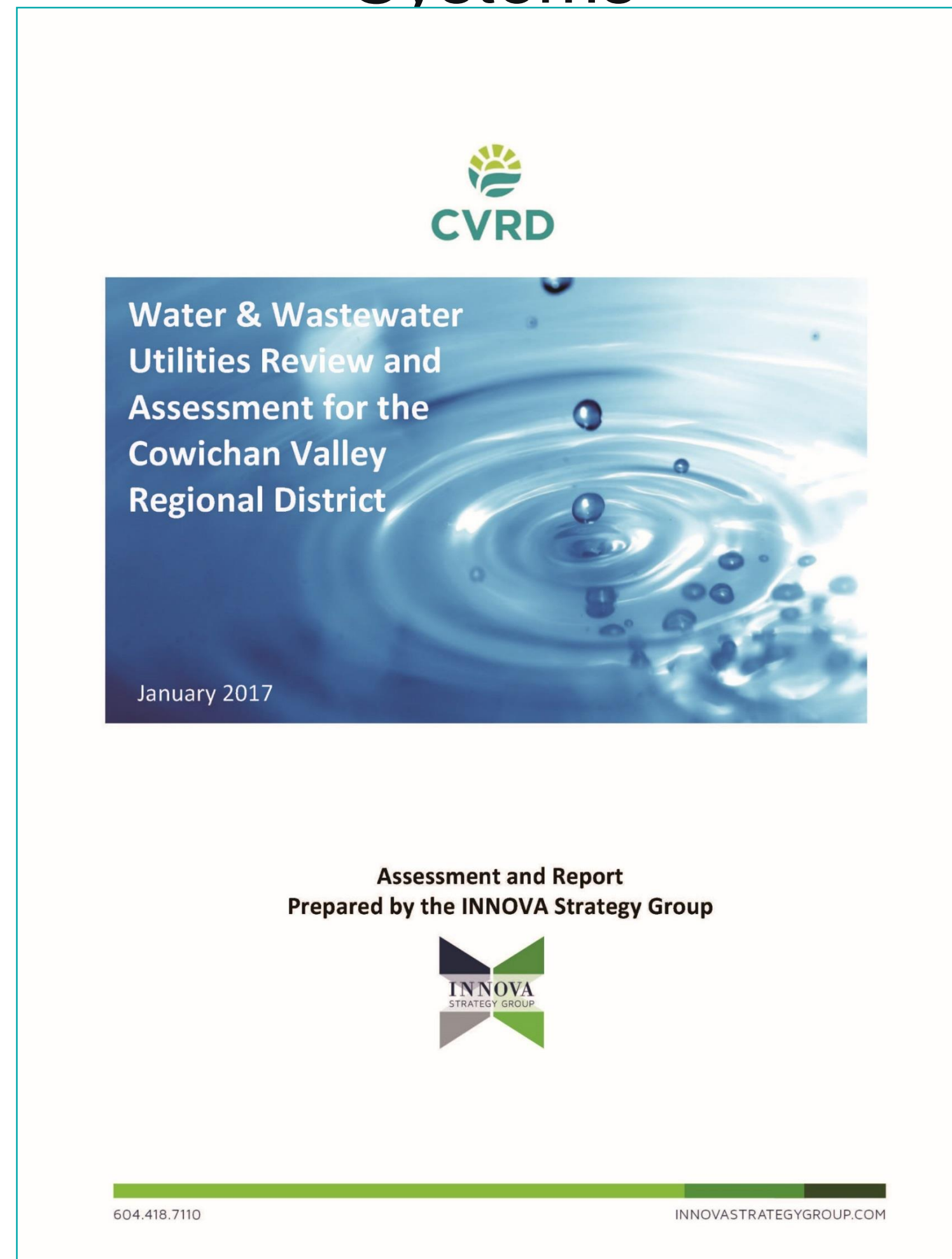


Collapsed weeping
tank lid, 2013
(next to Bear Lake)



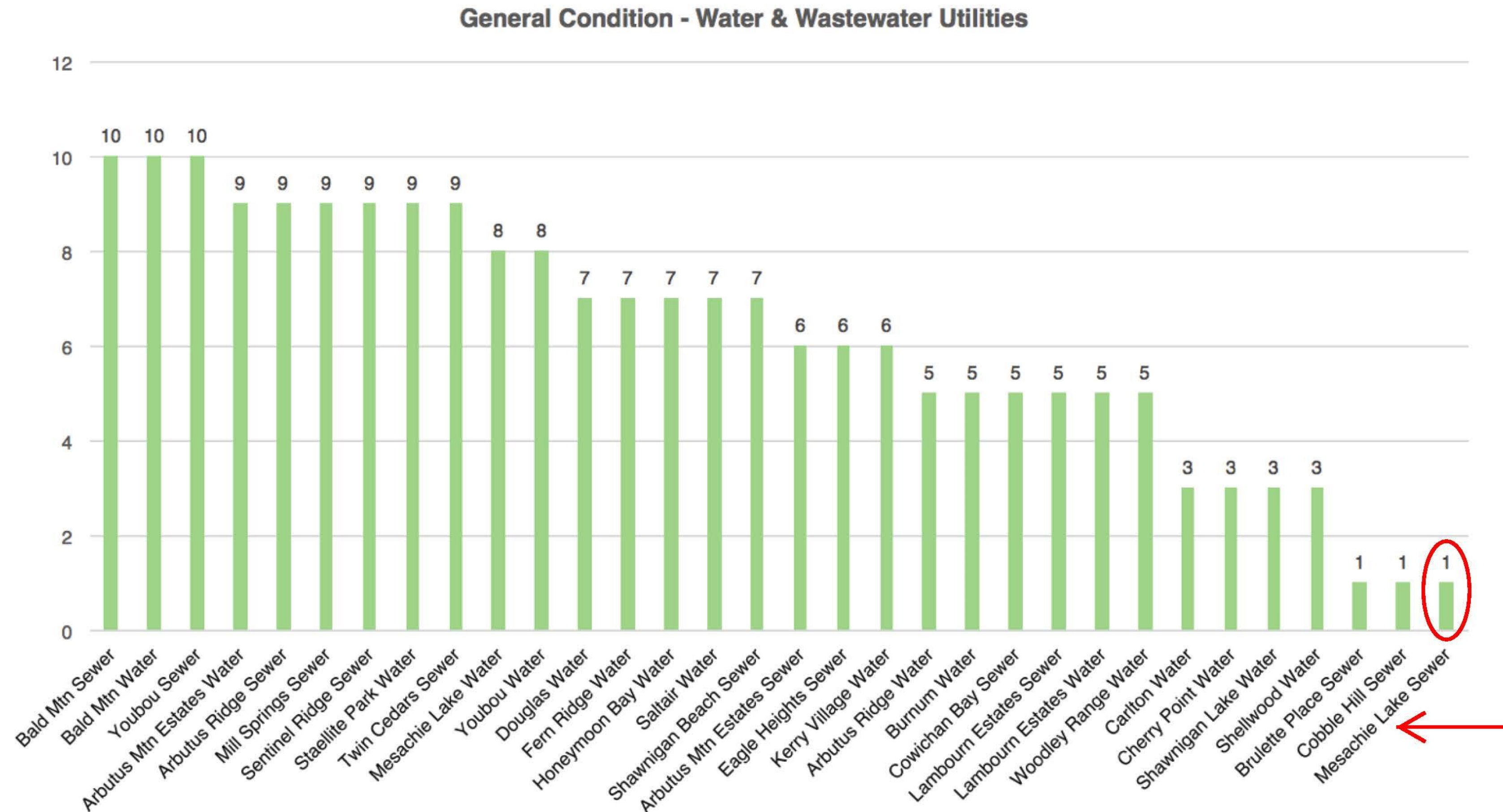
What has been done?

Completion of an Independent Utility Review of all CVRD Water and Sewer Systems



The full report is available for viewing on the CVRD website at www.cvrld.bc.ca/utilities

Condition Assessment of CVRD Sewer and Water Utilities from the INNOVA report

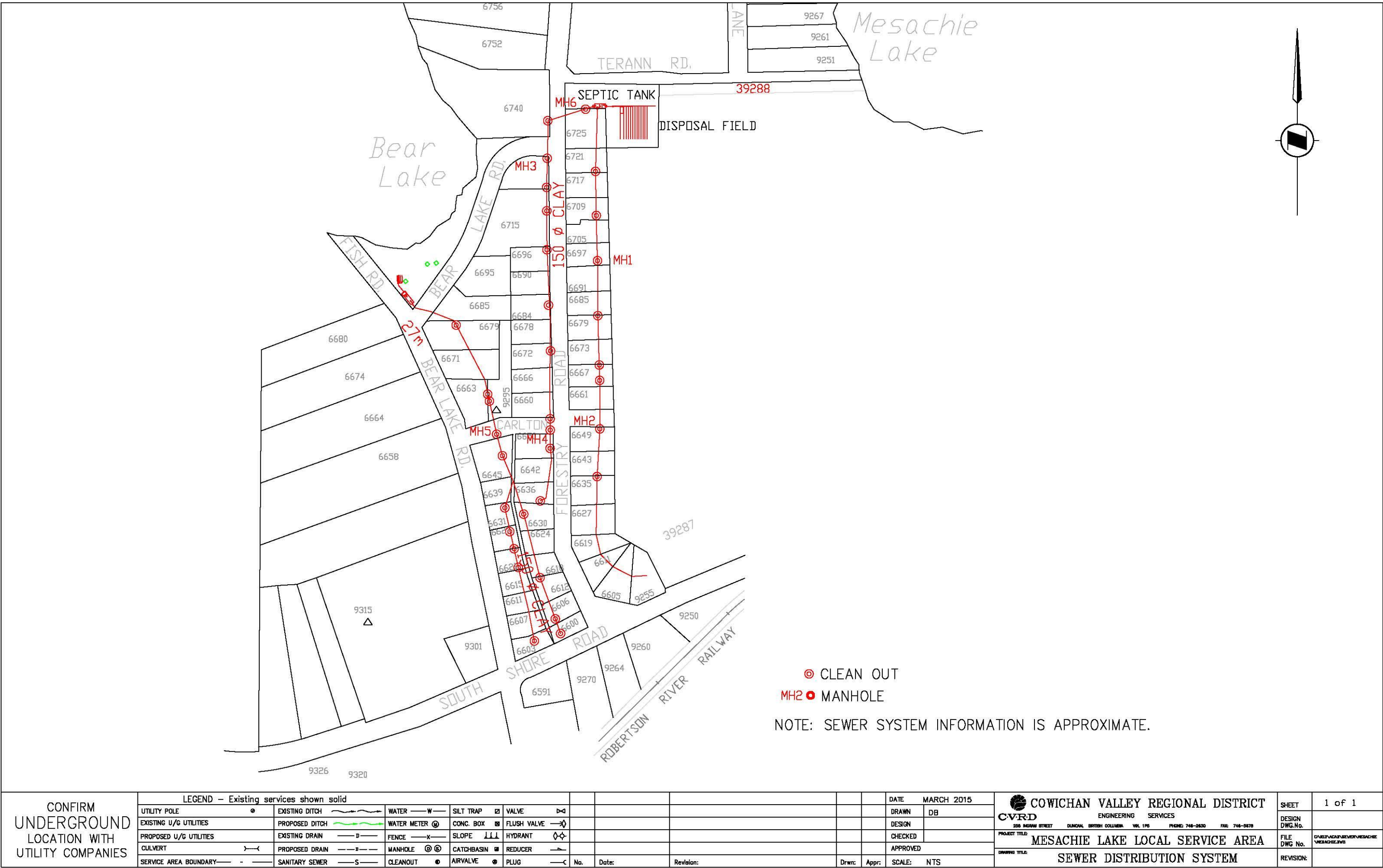


Condition Assessment

The rating for each system was based on:

- The amount of required capital improvements
- How the system meets established standards
- The risk to public health and the environment

Mesachie Lake Sewer System



Phase 1 of the Upgrade Project

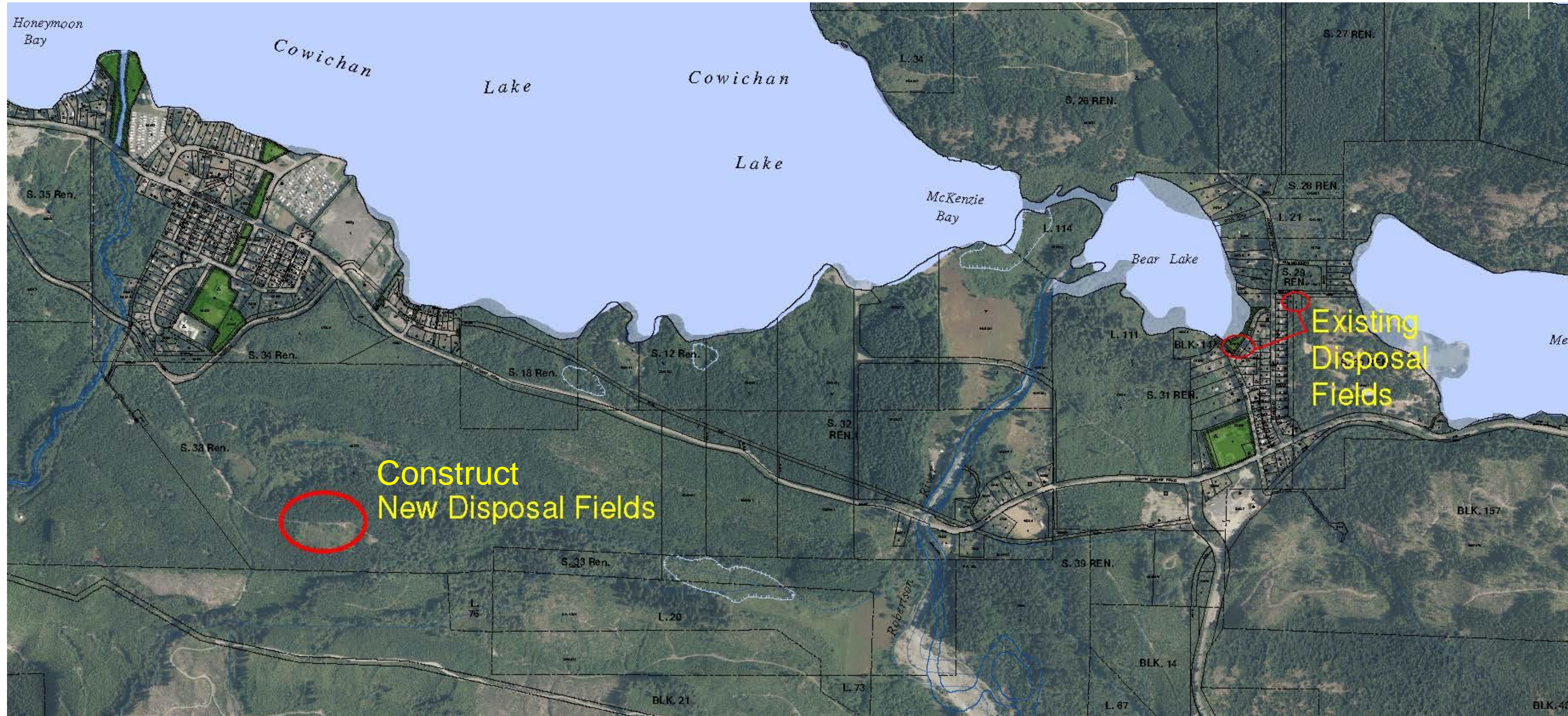
Installation of
two pump
stations at the
existing septic
disposal fields

Construction of new
disposal fields
(south-east of
Honeymoon Bay)

Construction of the
pressurized sewer pipe
to transport septic tank
effluent from the pump
stations to the new
disposal fields

Phase 1

Phase 1 of the Upgrade Project



Existing Disposal Fields:
Install two pump stations

Why Locate the Disposal Fields near Honeymoon Bay?

The land for the disposal fields intended to be given to CVRD by Couverdon (Timberwest)

- The grant portion cannot be used to purchase land
- The cost to purchase land would be an additional project cost (paid for by the customers of the system)

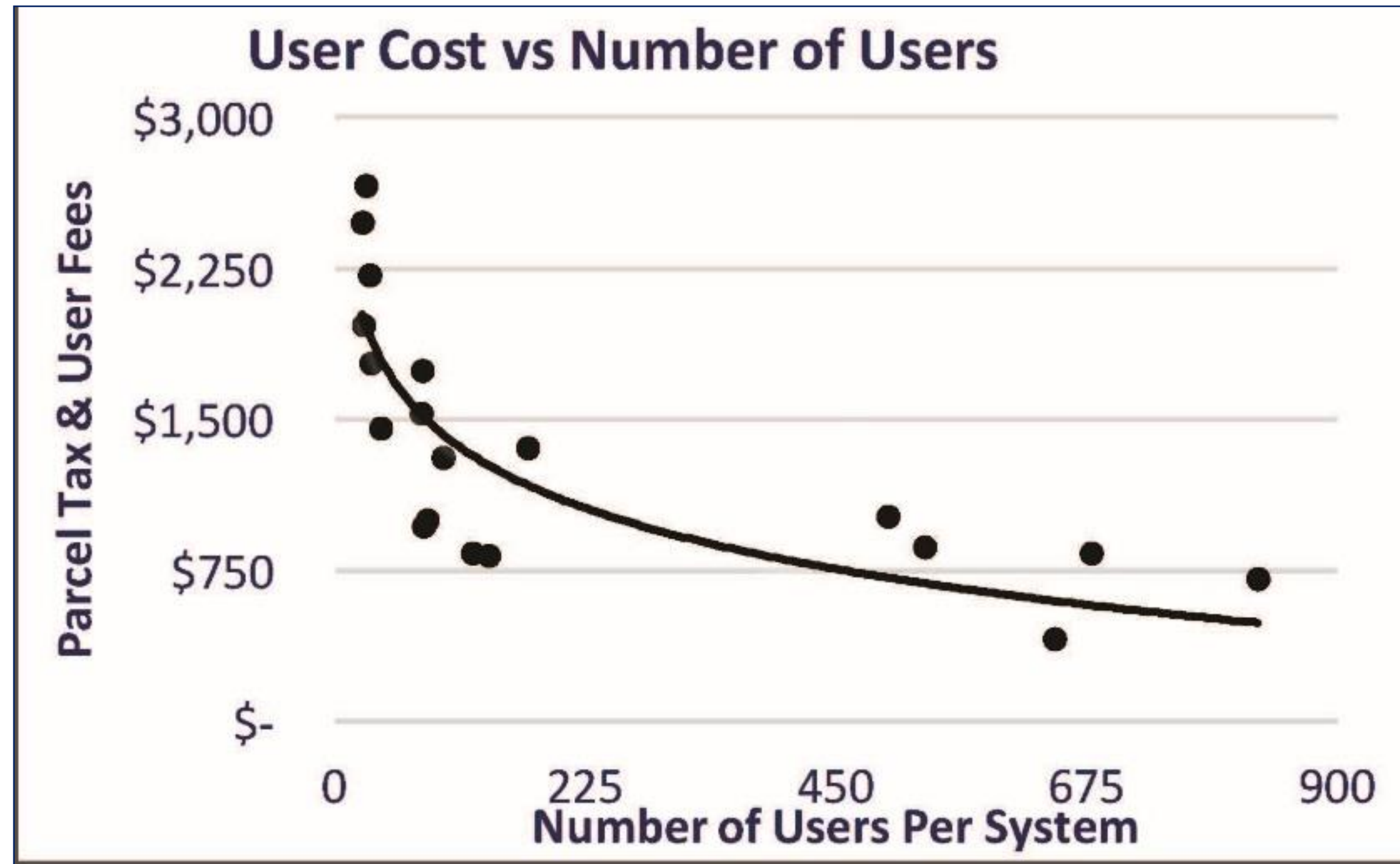
The area is large enough for the disposal fields

- Initially there will be no treatment plant; therefore, a large land area is needed to provide adequate disposal capacity
- The Mesachie ball field is not large enough, unless a treatment plant is also built (with additional cost)

First step towards a centrally located sewer system to service Mesachie Lake and Honeymoon Bay

- A larger sewer system, servicing more people, is more economical and efficient to operate and maintain
- More customers lowers individual customer costs

From the INNOVA Report



To be financially sustainable, the revenues earned by a water or wastewater utility should cover the full cost of operating and maintaining the utility, as well as accounting for the eventual replacement of the utility as it ages and comes to the end of its useful life.

Who will be the Customers of Phase 1?

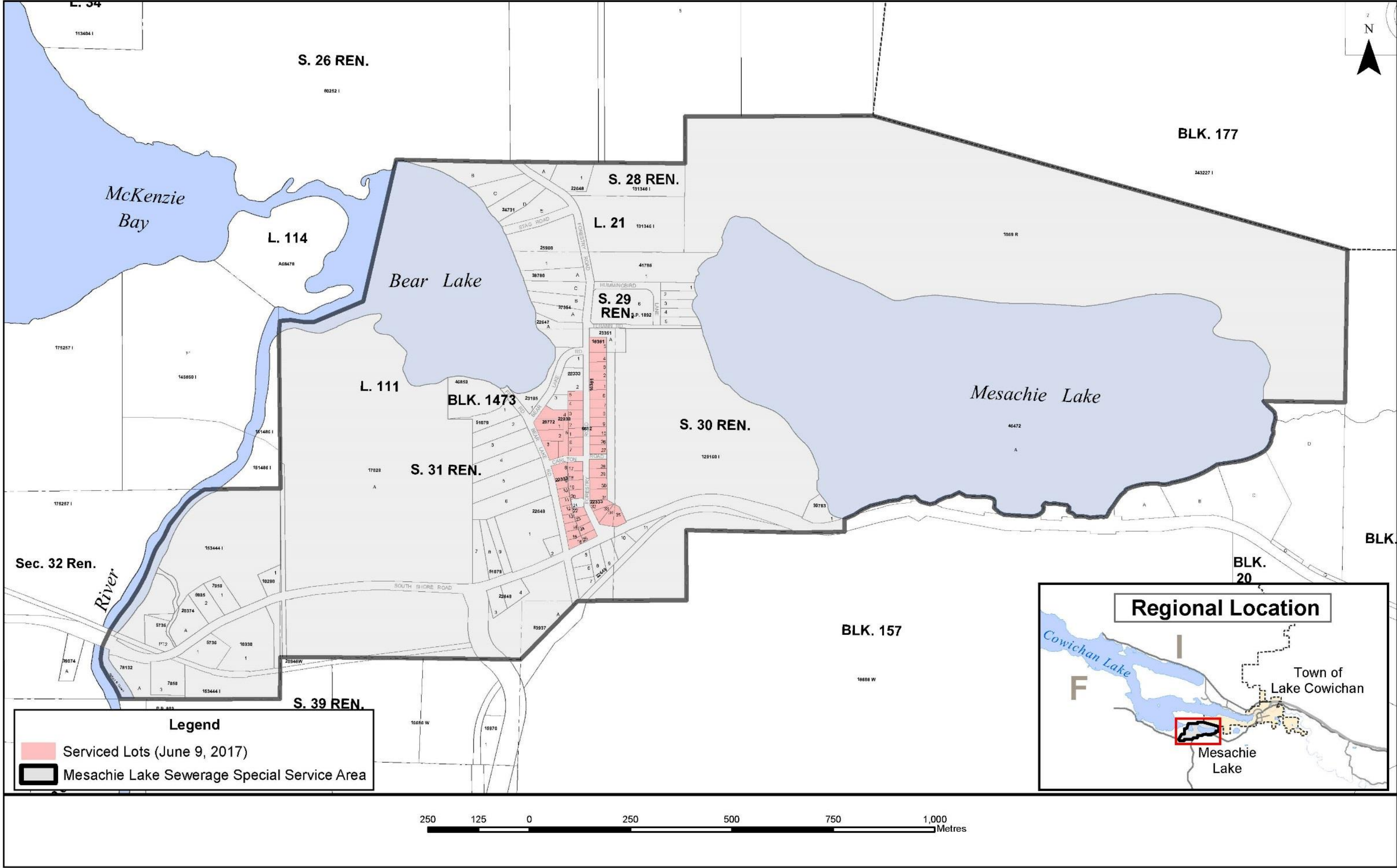
The existing customers of Mesachie Lake Sewer System

- 49 existing customers

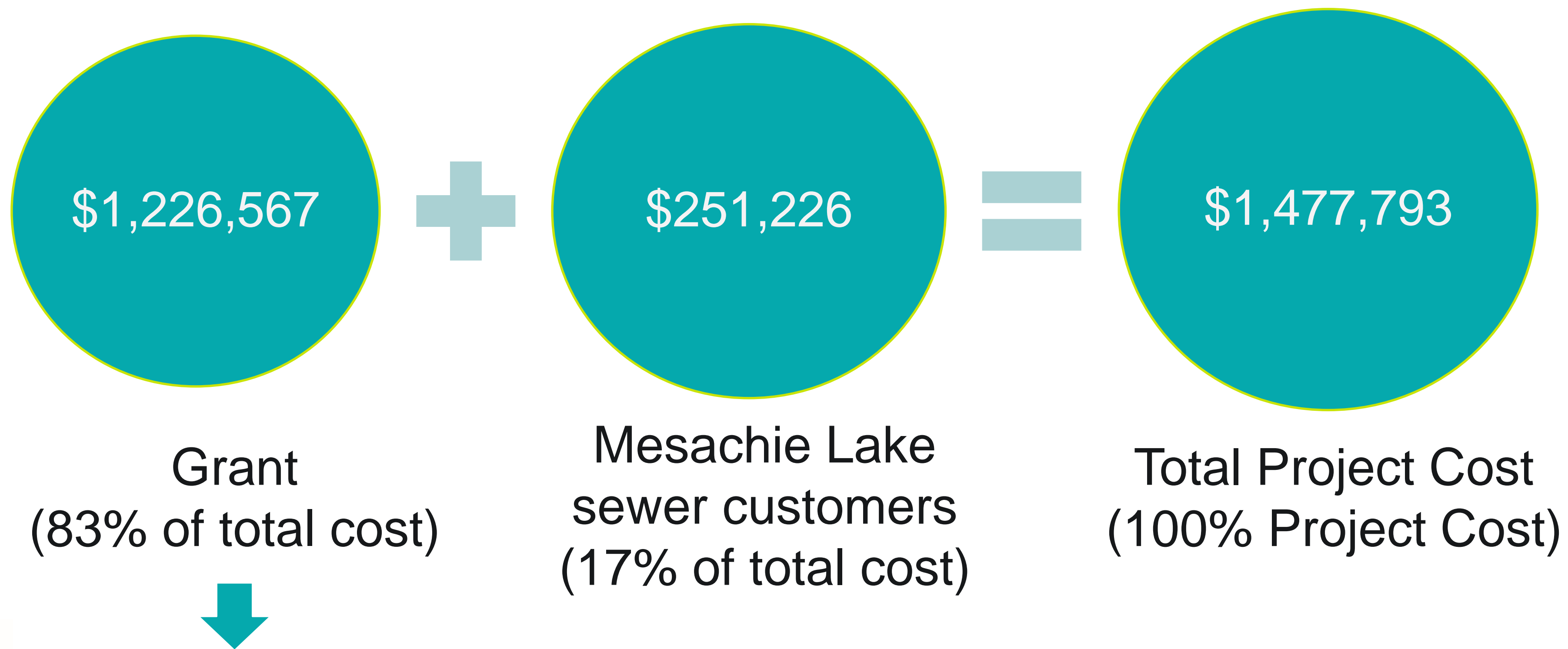
New customers may connect after Phase 1

- New customers will be required to pay:
 - the necessary fees to join the sewer service area
 - all the costs associated with physically connecting to the sewer main
 - the cost for any required sewer main extension

Mesachie Lake Sewer Customers - June 2017



Project Cost for Phase 1



Phase 2 – Future Phase

- Connection of individual properties of the existing 49 customers to the pressurized sewer pipe installed in Phase 1
 - ✓ This would resolve blockages and sewage back up issues
- \$200,000 has been allocated to Phase 2, as recommended to the Board by your Electoral Area Director, Ian Morrison

Future Phases

Possible New Developments/Connections:

- Properties fronting the pressurized sewer line
- Additional properties in Mesachie Lake
- Couverdon
- Pebble West
- Honeymoon Bay properties

Benefits of New Developments/Connections

- Potential for a Treatment Plant
- Lower individual customer costs
- Expansion of sewer mains to provide servicing to more customers
- Increased environmental protection
 - ✓ fewer failing septic fields
 - ✓ protection of drinking water sources

Customers Share (17%) of the Project Cost for Phase 1: Borrowing up to \$251,226

Additional Cost per Customer per Year (to borrow up to \$251,226)	
Length of Borrowing Term	Additional Cost per Year (assuming 4% interest)
20-year	\$405.00 per year
25-year	\$353.00 per year



Upon approval, the first payment would be collected on the 2018 parcel tax (collected through the annual property tax)

Increase to Operation and Maintenance Cost

- An increase to User Fees will be necessary to cover additional maintenance and operational costs resulting from:
 - Hydro costs
 - Disposal field and pump station maintenance
 - Environmental and alarm monitoring
- ✓ Additional customers would reduce the individual customer cost

Solving Mesachie Lake's sewer problem requires customer's consent.
It is recommended that consent be authorized through the petition process.

Petition Process

Approval must be given from greater than 50% of the property owners representing greater than 50% of the taxable value of all land and improvements of 48 Mesachie Lake Sewer customers (the fire hall is excluded from the petition process)

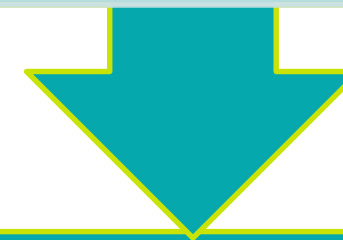
Petitions will be distributed to the customers in the coming weeks

Approval must be received by a set date

Phase 1 Project Timeline

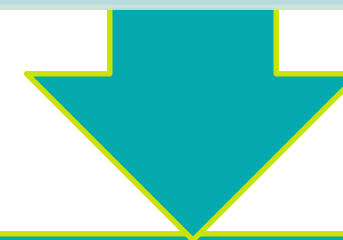
Successful approval of the Petition to borrow the funds

August 2017



Design work and Registration with the Municipal Wastewater Regulation

August 2017 - May 2018



Construction begins

May 2018 - March 2019 (Phase 1 must be completed by March 2019 as per the terms of the grant)

What if Approval is not given to borrow the funds?

- The project will not proceed and the grant funding will be returned to the provincial and federal governments
- We wait for the Ministry of Environment or Island Health Authority to mandate the upgrade. The customers would be responsible to pay for the entire upgrade project cost.
- Future grant funding is very unlikely

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- [Toilet Rebate Application](#)
- [What not to flush...](#)

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Mesachie Lake Sanitary Sewer System



DSC_0131

Mesachie Lake sewer system is located in the community of Mesachie Lake in Area F and services 49 residential properties.

System Overview

Mesachie Lake Sewer System was built in the 1940's by Hillcrest Logging Company to support houses built for its workers and their families. Despite the age of the system, and its primitive design, the system continues to function, but is badly in need of upgrades.

To bring the system up to modern day standards, and to comply with the Ministry of Environment's regulations, the system requires upgrades to all parts of the system as well as the addition of a treatment plant to treat the sewage to higher quality.

Options are currently being explored for to determine the best, long-term, sustainable solution to

Contact Us

General Inquiries

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After Hours Utilities Emergency

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News Flash

Public Meeting, Friday June 23, 7:00pm

A community meeting will be held on Friday, June 23, starting at 7:00 pm, at the Mesachie Lake Community Center, 9315 South Shore Road, to discuss the Mesachie Lake Sewer System Upgrade Project. [Read on...](#)

Watering Restrictions

Watering Restrictions [Read on...](#)

\$1.2 million Grant Funding

Questions from the Audience?

How to Use Your Clicker

1. **Turn clicker on.** The blue light should be on.
2. **Wait** for instruction to start.
3. **Choose one option** using the clicker. You may change your selection while the timer is counting down. Only the last selection is counted.
4. **Please return** the clicker after the meeting.

Clicker 'Warm-Up' Question #1

1. Do you think Prince Charles would make a good king?

a) Yes

b) No

Clicker 'Warm-Up' Question #2

1. Where do you live?

- a) Mesachie Lake
- b) Honeymoon Bay
- c) Elsewhere

Clicker 'Warm-Up' Question #3

1. How long have you owned your property in the South Shore area (Beaver Lake Resort to Gordon Bay)?
 - a) 1-5 years
 - b) 5-10 years
 - c) 10-15 years
 - d) Over 15 years

1. For the 49 Mesachie Lake customers, currently connected to the sewer system, do you support the Mesachie Lake Upgrade Project moving forward?

a) Yes

b) No

2. For the 49 Mesachie Lake customers, currently connected to the sewer system, what is your preferred borrowing term?

a) 20-year (\$405 per year)

b) 25-year (\$353 per year)

3. For the people of Mesachie Lake, but not connected to the sewer system, are you interested in potentially joining the sewer system?

a) Yes

b) No

4. For the people of Honeymoon Bay,
are you aware of failing septic fields in
your neighbourhood?

a) Yes

b) No

5. For the people of Honeymoon Bay, would you think a community sewer system servicing Mesachie Lake and Honeymoon Bay would be a benefit?

a) Yes

b) No

6. Are you concerned about the affects of failing septic systems on water quality in the lake?

a) Yes

b) No