



Public Meeting Hamlet of Lone Rock Infrastructure Consultation

Nicole Allen, P.Eng.
October 15th, 2014



Discussion Outline

1. What infrastructure does Lone Rock have?
2. What does it cost to maintain and operate?
3. What are the upcoming renewals?
4. What are the life cycle costs?
5. What is the current income level?



Definition of an Organized Hamlet

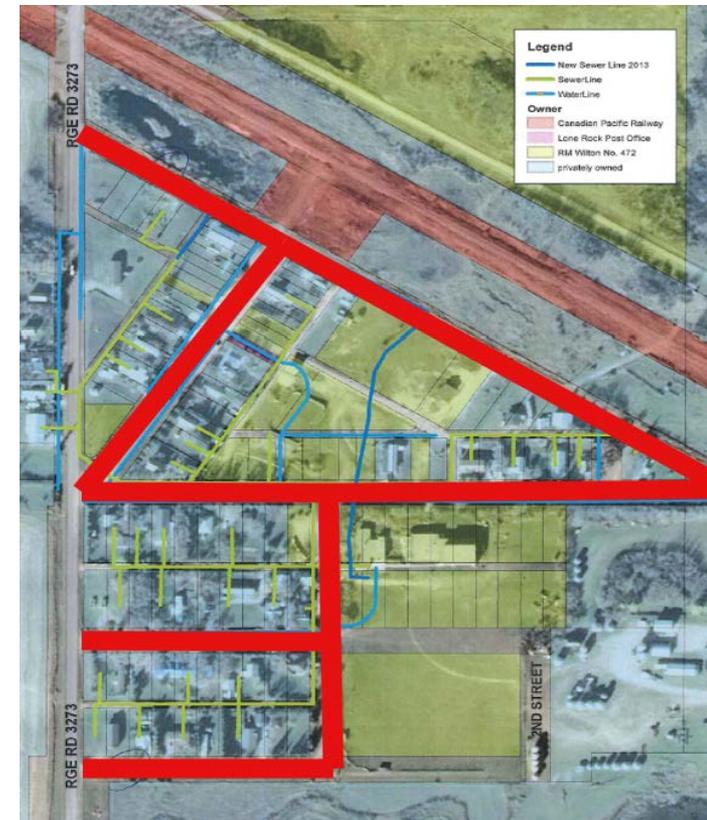
- Hamlets
 - are not recognized as municipal entities
 - are governed by a rural municipality
 - have not been granted spending authority
- Hamlets are represented by a hamlet board at the RM Council
 - Elected by residents
- The RM collects all grants and taxes for the Hamlet
 - All grant money is allocated to the Hamlet
 - Hamlet and the RM negotiate agreement for percentage of taxes allocated to Hamlet (40-75%)
 - Current agreement allocates 100% to Lone Rock
 - Expenditures are made at the request of the hamlet board
- Contain at least 5 homes and 10 subdivided lots
 - mean area under 1 acre

1. What Infrastructure is in Lone Rock?

Road Network – What is there?

| | Amount | Current Replacement Cost |
|----------------|--------|--------------------------|
| Gravel Streets | 1.8 km | \$174,920 |

1965 



Water Network – What is there?

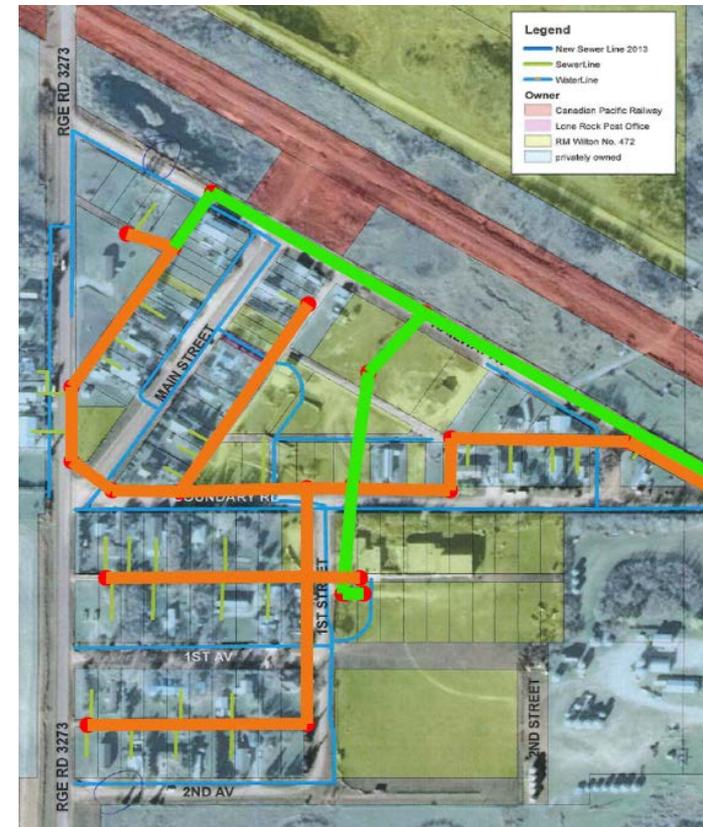
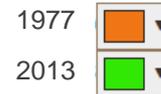
| | Amount | Current Replacement Cost |
|-----------------------|--------|--------------------------|
| Water Mains | 2.6 km | \$523,740 |
| Water Treatment Plant | | \$1,000,000 |
| | | \$1,523,740 |

1977 

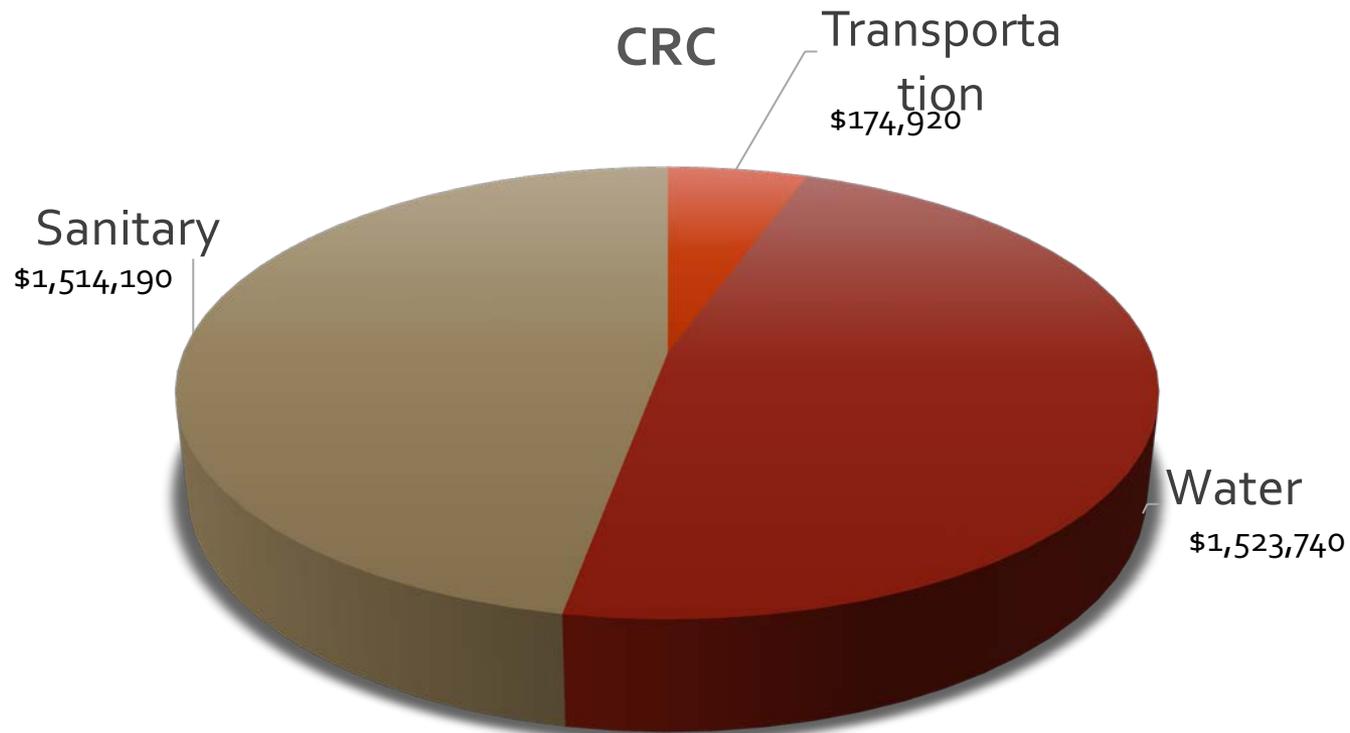


Sanitary Network – What is there?

| | Amount | Current Replacement Cost |
|----------------|--------|--------------------------|
| Sanitary Mains | 2.0 km | \$464,190 |
| Lift Station | | \$50,000 |
| Lagoon | | \$1,000,000 |
| | | \$1,514,190 |



Total Infrastructure Current Replacement Value



Total Infrastructure
CRC = \$3,212,850
CRC = \$97,360 / dwelling

2. What are the operating and maintenance activities in Lone Rock?



Operating and Maintenance Activities

- Transportation
 - Blading
 - Snow removal
 - Dust control
 - Gravel
 - Culvert replacement
 - Street lighting

- Water Network
 - Minor repairs
 - Water treatment and testing
 - Chemical, labour, power, etc.

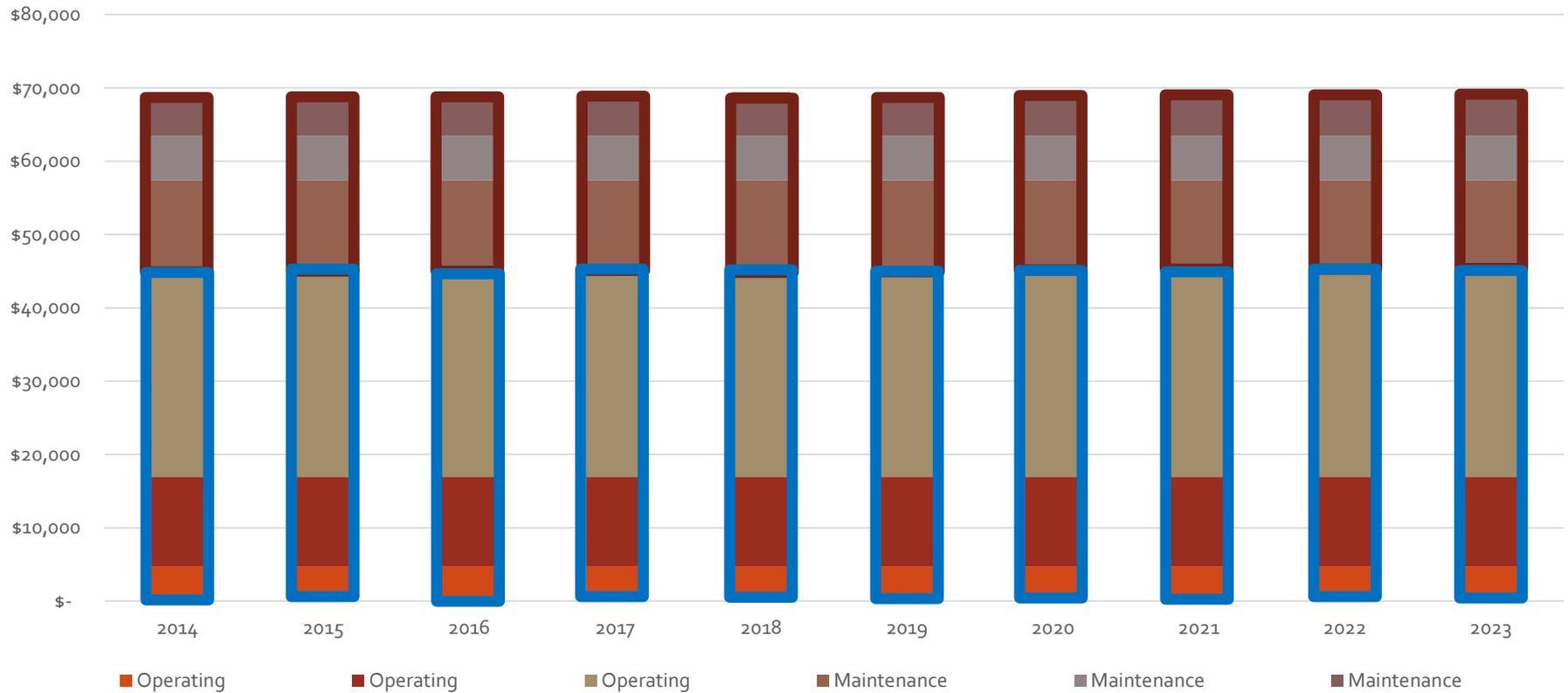
- Sanitary Network
 - Minor repairs

- Other
 - Mowing
 - Dog control
 - Garbage collection
 - Post office building expenses



Life Cycle Costs – O & M

Operating & Maintenance



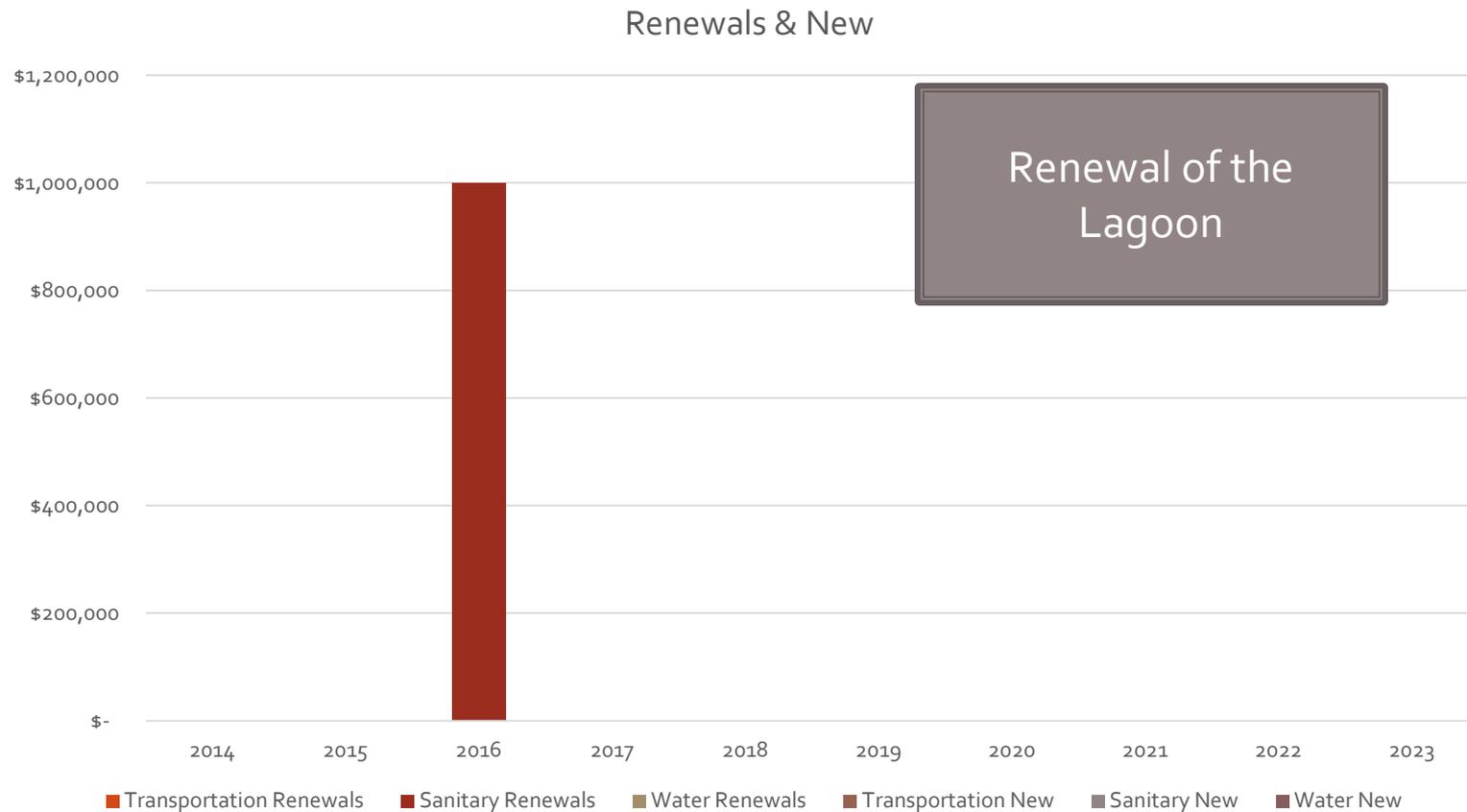
Operating and Maintenance

- Just to operate and maintain current infrastructure
 - Transportation, Water, Sanitary Sewer
 - \$69,420 / year
- This amount does not include renewal of any infrastructure

3. What Infrastructure renewals are coming up in Lone Rock?



Life Cycle Costs - Capital



Renewals of Infrastructure

- This amount does not include renewal of any infrastructure

| | Amount | Replacement Cost | Year of Construction | Expected Life |
|-----------------------|--------|------------------|----------------------|------------------------|
| Gravel Streets | 1.8 km | \$174,920 | 1965 | ~80 years |
| Water Mains | 2.6 km | \$523,740 | 1977 | ~50 years |
| Water Treatment Plant | | \$1,000,000 | 2010 | ~22 years |
| Sanitary Mains | 2.3 km | \$464,190 | 1977 2013 | ~50 years ~75 years |
| Lift Station | | \$50,000 | 2011 | ~23 years |
| Lagoon | | \$1,000,000 | 1977 / 2013 | ~39 years |



Water and Sewer Concerns

- Current water usage is ~74,000 m³ per year
- There have been concerns in regards to the sanitary sewer capacity in the past
 - Especially resulting from high spring runoff volumes
- Sanitary sewer is strongly impacted by runoff and rainfall as it acts partly as a storm sewer
 - Weeping tiles
 - Septic tanks not sealed
 - Aging septic tanks and failures

4. What are the full costs of the infrastructure in Lone Rock?



Average Annual Cost

- If you had to pay the same amount each year for the renewal of the assets
 - we call this the asset consumption
 - doesn't include operating and maintenance costs
 - Based on current replacement cost and expected life
- Annual Consumption of Sanitary = \$36,000 / year
- Annual Consumption of Water = \$56,000 / year
- Annual Consumption of Roads = \$2,000 / year



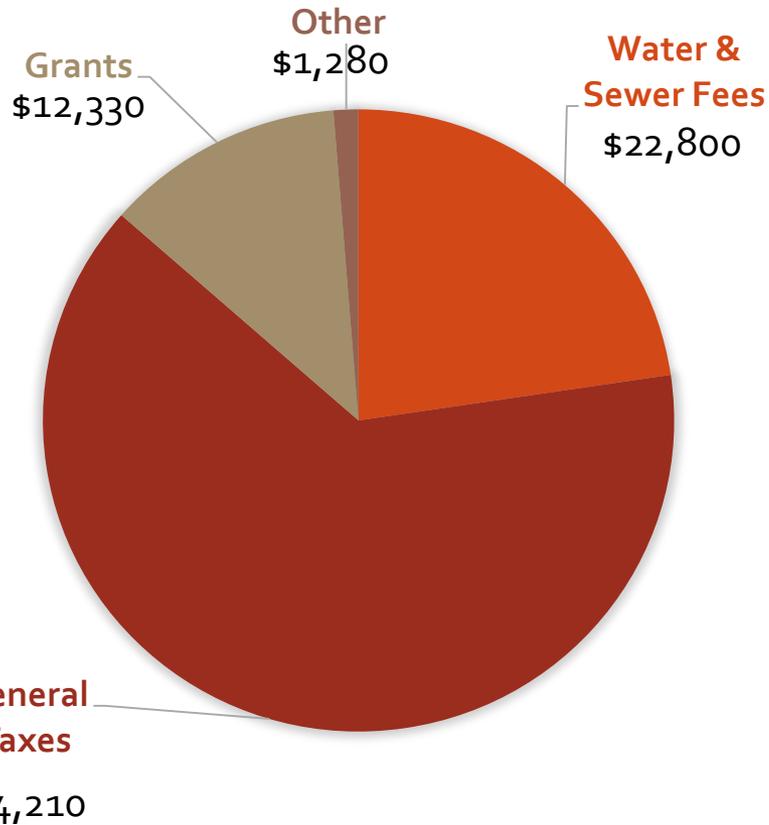
Full Cost of Service

- Annual operating and maintenance costs
 - \$69,420 / year
- Annual consumption of the infrastructure
 - \$94,000 / year
- The full cost of providing these services (transportation, sanitary, and water)
 - ~ \$163,420 / year

5. What is the current income level?

Current Income for Lone Rock

Current Income

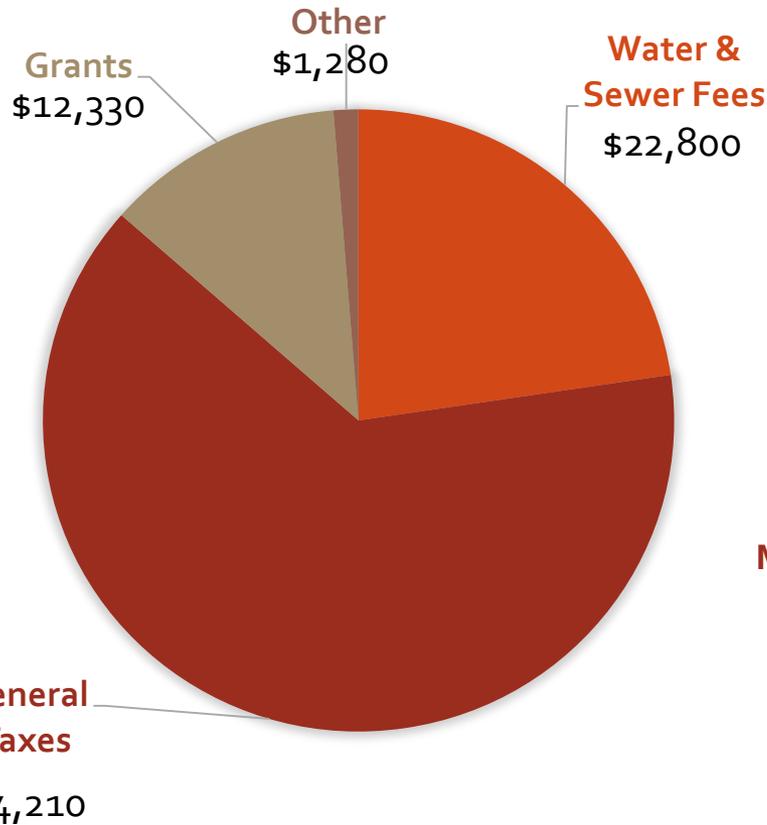


Current Total = \$100,620



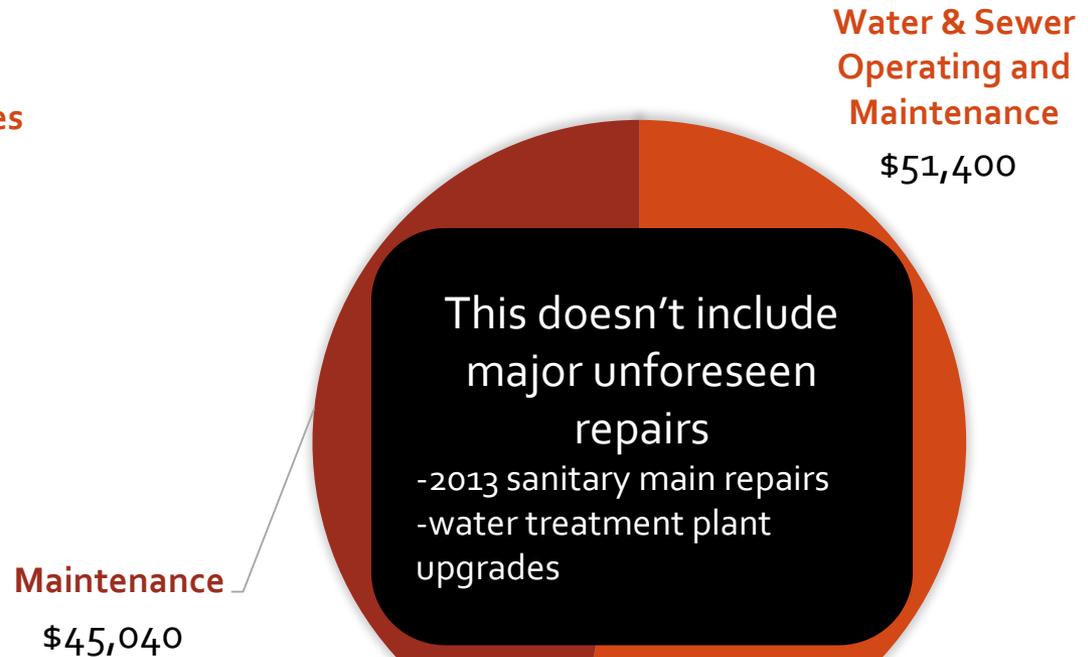
Current Income and Expenses for Lone Rock

Current Income



Current Total = \$100,620

Current Expenses



Current Total = \$96,440

SUMMARY



Summary

- Lone Rock infrastructure has a current value of \$3,212,850 (\$97,360 / dwelling)
- Annual income covers operating & maintenance only
 - \$69,420 / year
- There are currently no funds to cover renewals of the infrastructure
 - Lagoon upgrade or other repairs
- The full cost of providing these services (transportation, sanitary, and water)
 - ~ \$163,420 / year

Questions

