Sewer Life Cycle Costs

200 Year Projection

Age of System and Growth Forecasting

- Measured as a percent of the system in 2023
  - 52.6% of the system was installed in the 1990s
  - 24.9% of the system was installed in the 2000s
  - 18.8% of the system was installed in the 2010s Totals at
- Forecasting system size
  - Project that the system will continue to buildout for the next 4 decades at the current rate until we hit 10,392 units which is close to the estimate of the current buildout study.

Model Assumptions

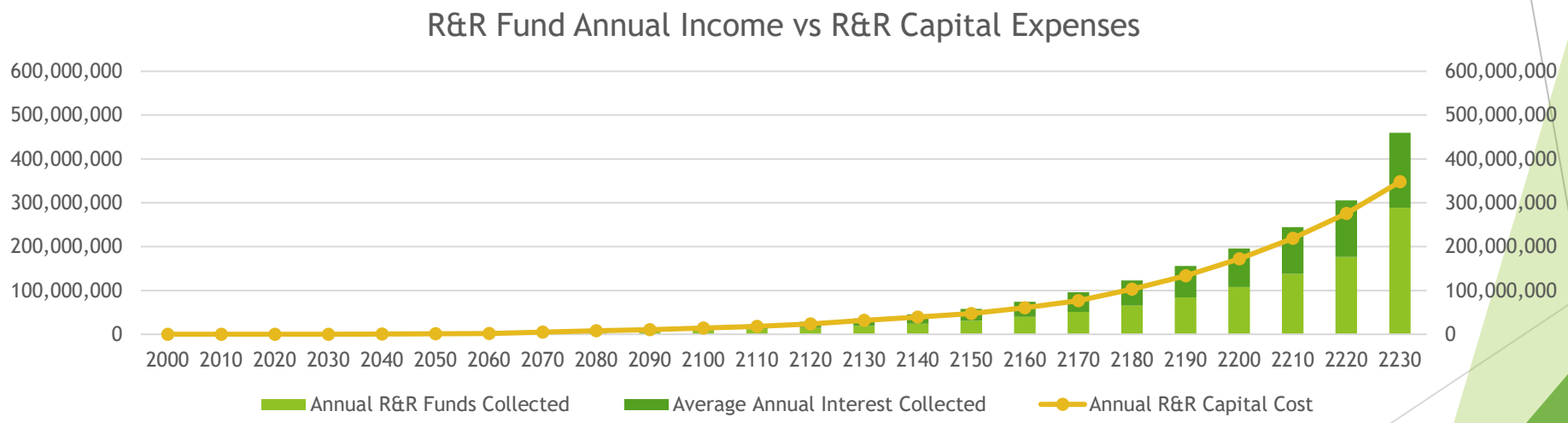
- Expected life of Sewer System is 75 years
  - Repair and Replacement Schedule (R&R)
    - 10% of the system is replaced after 50 years
    - 25% after 60 years
    - 50% after 70 years
    - 75% after 80 years
    - 90% after 90 years
    - 100% after 100 years
- Inflation: 2.5% per year
- Fund Investment Rate of Return: 5.0% per year
- Assumes 50% Rehab and 50% Replacement
  - Assumes Rehab costs are 50% of replacement cost
- Real Return Rate on funds is 2.5% per year (expected to be conservative)

Simplification of the Model

- Model is based on each period being 10 years or one decade.
- Model does not consider the proposed bonding. To compensate, we assume that no funds are saved until 2030.
- Since the model looks at inflation, numbers get very large, so it is useful to consider the following key indicator:
  - Annual R&R funds collected based on % of Replacement Value
    - Backwards looking
- Modeled for 200 years to find equilibrium point.

Results

- Model suggest that we start saving in the amount equal to 0.827% of replacement value. Based on current replacement value of $101,000,000 that amount is $835,270.



Model Results

- Using relative numbers based on % of Replacement Value

