

# Wastewater Treatment Plant Projects

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## Key Points to Discuss



### 1. Timing

- Still in early stages
- Time to adjust
- 2 Drivers: Regulatory and Growth



### 2. Uncertainty

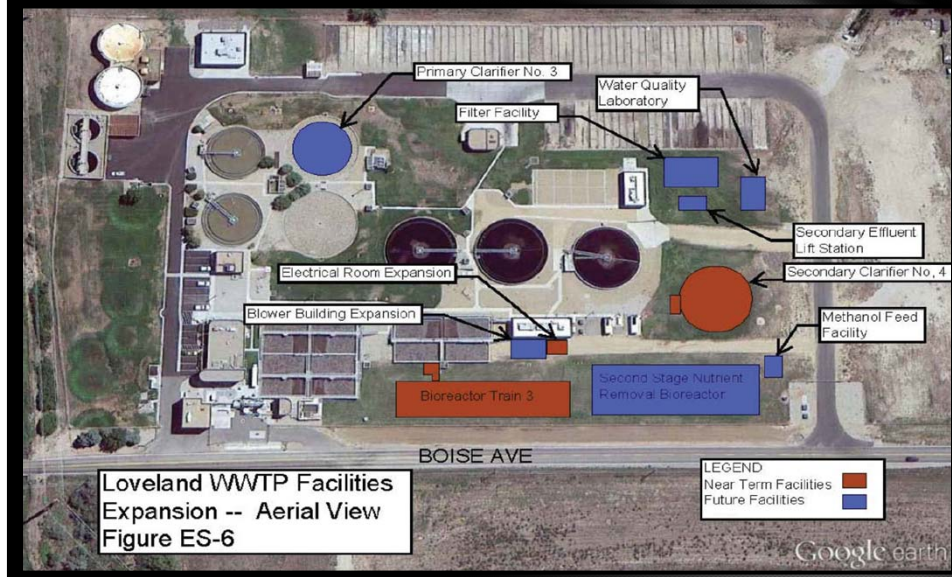
- Unknown factors
- Areas outside our control



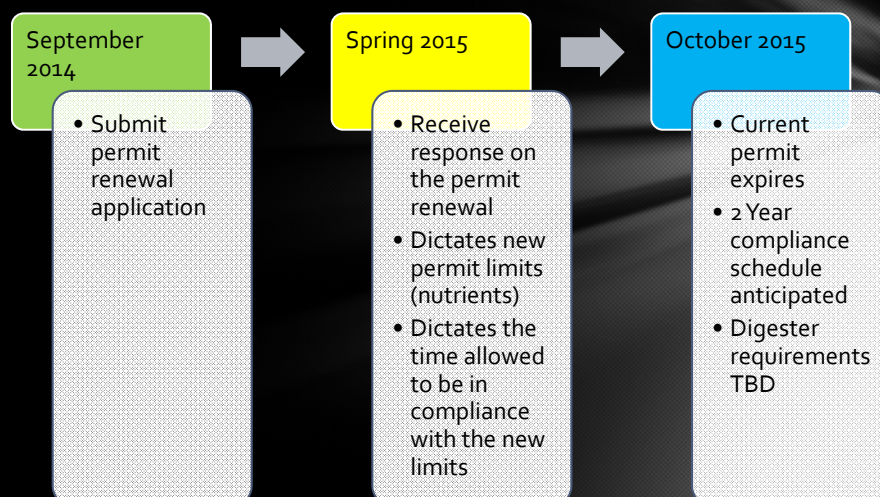
### 3. Options

- Project schedule
- Cash flow

## Wastewater Treatment Plant Site Plan

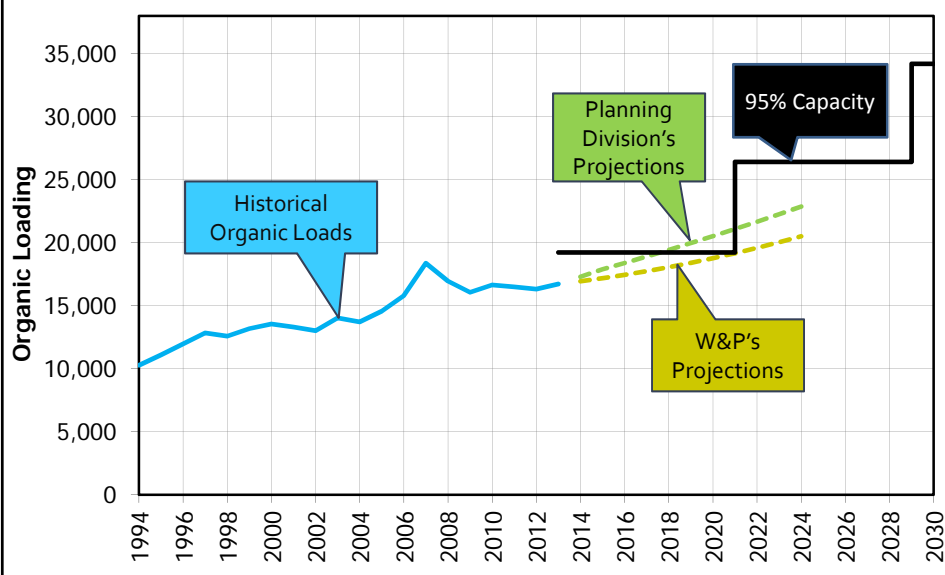


### 1. Timing - Regulatory Driver (NPDES Permit Renewal)





## 1. Timing – Growth Driver



## 2. Areas of Uncertainty

### State Requirements

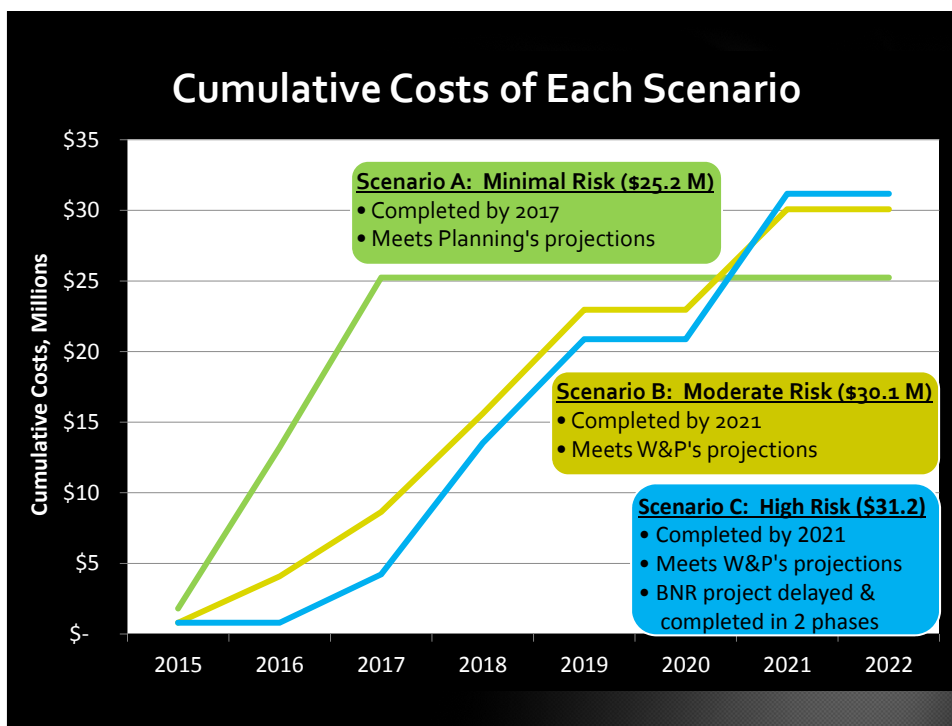
- Nutrient limits
- Effluent temperature
- Digester timing


### Growth Rates

- Population growth
- Large economic development projects

### Borrowing Environment

- Interest rates
- Construction inflation rates





### 3. Options – Debt Service Comparison

| Scenario | Loan Amount                               | Loan Type                   | Interest Rate    | Annual Debt Service | Total Interest Payments |
|----------|---|-----------------------------|------------------|---------------------|-------------------------|
| <b>A</b> | \$20M<br>(\$10 M 2015,<br>\$10 M 2016)    | 20 Year<br>External<br>Loan | 2.75%<br>(fixed) | \$1.3M              | \$6.3M                  |
| <b>B</b> | \$13.1M<br>(\$10 M 2015,<br>\$3.1 M 2016) | 20 Year<br>External<br>Loan | 2.75%<br>(fixed) | \$860K              | \$4.1M                  |
| <b>C</b> | \$10M<br>(\$10 M 2018)                    | 20 Year<br>External<br>Loan | 3.5%<br>(fixed)  | \$700K              | \$4.1M                  |

| + Advantages  | - Disadvantages  |
|---|--|
| <b>Scenario A: Minimal Risk (\$25.2 M)</b>  |  |
| <ul style="list-style-type: none"> <li>+ Conservative</li> <li>+ Redundancy sooner</li> <li>+ Most conservative (regulatory)</li> <li>+ Accelerated digester adequacy</li> <li>+ Adequate Community Facilities</li> <li>+ Economies of scale</li> </ul> | <ul style="list-style-type: none"> <li>- Debt service</li> <li>- Temperature standard not included</li> </ul>  |
| <b>Scenario B: Moderate Risk (\$30.1 M)</b>   |  |
| <ul style="list-style-type: none"> <li>+ Cash flow</li> <li>+ Deferred capital expenses</li> </ul>  | <ul style="list-style-type: none"> <li>- Delayed digester adequacy</li> <li>- Capacity limitations</li> <li>- Increased regulatory risk</li> <li>- Permit moratorium possible</li> <li>- Temperature standard not included</li> </ul>  |
| <b>Scenario C: High Risk (\$31.2)</b>   |  |
| <ul style="list-style-type: none"> <li>+ Cash flow</li> <li>+ Deferred capital expenses</li> </ul>  | <ul style="list-style-type: none"> <li>- Delayed digester adequacy</li> <li>- Capacity limitations</li> <li>- Increased regulatory risk</li> <li>- Permit moratorium possible</li> <li>- Loss of economies of scale</li> <li>- Most complex construction phasing</li> <li>- Temperature standard not included</li> </ul> |

Questions?