

# General LID Discussion

## Laclede Water District

March 2022



**T-O ENGINEERS**

# Outline

- Timeline of Events
- Water Demand
  - Existing
  - Projected
- Water system issues and selected solutions
  - Treatment
  - Intake
  - Distribution

# Timeline of Events

## Previous

- December 2018 – DEQ Facility Planning Grant LOI submitted
- July 2019 – Facility Planning Grant awarded by DEQ
- November 2019 – T-O Engineers contracted to develop Water Facility Plan (WFP)
- August 2020 – WFP Update at regular Board meeting
- October 2020 – Presentation of WFP project alternatives at regular board meeting
- November 2020 – Board approval to submit DEQ Loan Letter of Interest
- April 2021 – DEQ Technical Approval of Draft WFP
  - Public meeting announced for discussion of Draft WFP and opening of comment period
  - LWD tentatively offered DEQ Loan (30 years, 1.5%, \$721,000 in principal forgiveness)
- May 2021 – Public meeting discussing Draft WFP including project alternatives
- July 2021 – Board voted on selected alternatives for Final WFP
- November 2021 – DEQ Approval of Final WFP
- August 2021 – January 2022 – Board exploring means of obtaining legal authority to incur debt
- January 2022 – Retained Hawley-Troxell for formation of LID



**T-O ENGINEERS**

# Timeline of Events

## **Moving Forward**

- March 2022 – General information meeting on LID
- April 2022 – Board adopts preliminary resolution to form LID
- April 2022 – Public Notice of Hearing published and sent to property owners
- May 2022 – Public hearing to hear protests
- June 2022 – Adoption of Ordinance to create LID
- June 2022 – Adopt Resolution to Approve DEQ Loan Agreement
- Summer – Winter 2022 – Design project
- Spring – Fall 2023 – Bid and construct project



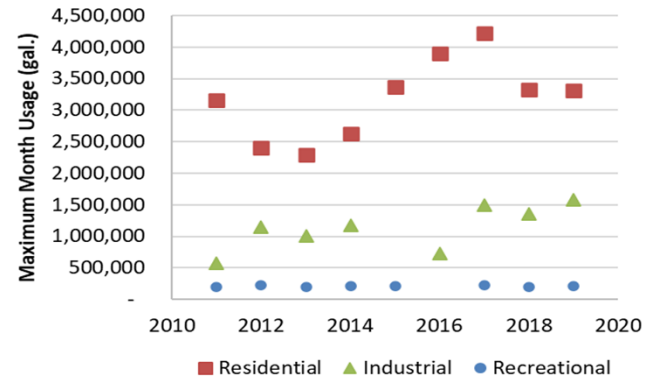
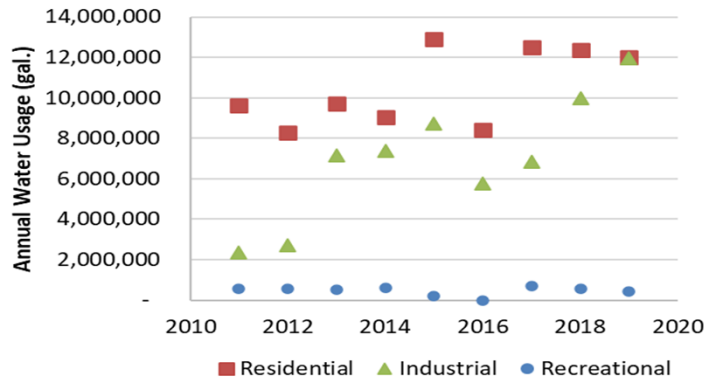
**T-O ENGINEERS**

# Existing Water Demand

## Existing Demand Assumptions

- Based on maximum monthly system usage from individual meter data between 2010 and 2019.
- MDD based on WA DOH Water System Design Manual equations utilizing maximum month average day.
- ERU=Equivalent Residential Unit ~ Average Household

Maximum Day Demand (gpm)						
Scenario	Residential ERUs	Residential	Recreational (RCRA)	Industrial (IFG)	Loss	Total
Existing	242	161	9	51	25	247



# Projected Water Demand

## 20-Year and Build-Out Demand Assumptions

- Residential growth based on U.S. Census data for Bonner County (3.4 ERUs/year).
- Industrial growth based on trends over the last 10 years.
  - Currently working with IFG on more accurate projections.
- Proposed improvements based on 364-gpm demand (20-year projections)

Scenario	Residential <i>ERUs</i>	Maximum Day Demand (gpm)				Total
		Residential	Recreational (RCRA)	Industrial (IFG)	Loss	
Existing	242	161	9	51	25	247
<b>20-Year Projections</b>	311	210	9	121	25	<b>364</b>
Build Out	462	311	9	231	25	576

# Water System Issues/Solutions

	<b>Issues</b>	<b>Solutions</b>	<b>Cost</b>
<b>Treatment System</b>	<ul style="list-style-type: none"> <li>Under capacity for current demand</li> <li>Valving</li> <li>No redundancy</li> <li>Corrosion</li> <li>Aged (40 years)</li> <li>No backup power</li> <li>Settling pond deteriorated</li> </ul>	<ul style="list-style-type: none"> <li>New treatment plant</li> <li>Backup generator</li> <li>Rehab settling pond</li> </ul>	<b>\$2.8 Million</b>
<b>Intake System</b>	<ul style="list-style-type: none"> <li>Capacity</li> <li>No backup power</li> <li>Lack of maintenance access</li> </ul>	<ul style="list-style-type: none"> <li>New pumps</li> <li>Backup generator</li> <li>New land-based pump system</li> </ul>	<b>\$640,000</b>
<b>Distribution System</b>	<ul style="list-style-type: none"> <li>Concrete storage tank failing</li> <li>Booster under capacity</li> <li>Booster no backup power</li> <li>Failing water mains</li> </ul>	<ul style="list-style-type: none"> <li>New storage tank</li> <li>Improved booster station</li> <li>Replacing undersized mains</li> </ul>	<b>\$1.8 Million</b>
		<b>Total</b>	<b>\$5.3 Million</b>



# Total Construction Cost & LID

## Tentative IDEQ Loan:

- 30 Year Loan Term at 1.5%
- 13.5% Principal Forgiveness
- Maximum loan value of \$5.3 Million
- Expires June 30<sup>th</sup>, 2022

## Assumptions:

- Costs are approximate and assume equally split between **535 ERUs**

<u>Approximate Costs</u>	
<b>Total Loan Amount</b>	<b>\$5.3 Million</b>
Monthly Debt Service/ERU	\$29.83
One-Time Debt Service/ERU	\$8,596



**T-O ENGINEERS**



# Questions?

## Contact Info:

Email – [BDeyo@TO-Engineers.com](mailto:BDeyo@TO-Engineers.com)

Phone – 208-762-3644



**T-O ENGINEERS**