

**City of Boerne**  
**Wastewater Treatment and Recycling Center (WWTRC) Expansion**  
**Re-Rating WWTRC Capacity from 1.4 mgd, to up to 2.2 mgd**  
**Conceptual Opinion of Probable Construction Cost**  
**AACE Estimate Class 5 (Accuracy Range of -30% to +50%)**

**Headworks**

New screening, gates, piping \$ 1,000,000

**BNR Basins**

Install Internal Mixed Liquor Recycle Pumps \$ 300,000

**Dewatering**

Install one new screw press unit (already purchased by the City), control panel and polymer blending unit, including connections to existing sludge and drain piping \$ 700,000

**Sludge Holding Tank and Pump Station**

Install new sludge holding tank, aeration equipment and pumps \$ 4,800,000

**Site Work and Yard Piping**

\$ 600,000

**Electrical, Instrumentation and Control**

15% \$ 1,200,000

**Contractor Mobilization, Bonds, Insurance and General Conditions**

15% \$ 1,200,000

**Construction Subtotal \$ 9,800,000**

Design Contingency 20% \$ 1,960,000

**Total Opinion of Probable Construction Cost \$ 11,760,000**

*Anticipated Accuracy Range:* -30% \$ 8,300,000  
+50% \$ 17,700,000

**Assumptions**

1. OPCC includes equipment required for expansion, and no replacement of existing equipment
2. OPCC assumes no changes to effluent permit limits
3. OPCC assumes no major changes to previous design of sludge holding tank or pump station
4. OPCC assumes a third screw press is not required

**City of Boerne**  
**Wastewater Treatment and Recycling Center (WWTRC) Expansion**  
**Re-Rated Capacity (up to 2.2 mgd) to 3.9 mgd**  
**Conceptual Opinion of Probable Construction Cost**  
**AACE Estimate Class 5 (Accuracy Range of -30% to +50%)**

<b><u>Influent Lift Station Upgrades</u></b>	\$	500,000
<b><u>Headworks</u></b>		
New screening, gates, piping and grit equipment	\$	2,000,000
<b><u>BNR Basins</u></b>		
Two new BNR basin trains, including aeration equipment and piping, aluminum covers, mixers, and foul air piping	\$	6,200,000
<b><u>Secondary Clarifier</u></b>		
One new secondary clarifier, including all equipment and piping	\$	2,700,000
<b><u>Secondary Pump Station</u></b>		
New pump station with RAS and WAS pumps and yard piping	\$	1,800,000
<b><u>Effluent Filters</u></b>		
Add two new channels, each with one bank of 12 cloth media disk filters	\$	2,800,000
<b><u>UV Disinfection</u></b>		
Install new UV equipment in existing channel	\$	1,000,000
<b><u>Dewatering</u></b>		
Installation of third screw press, control panel, and polymer blending unit, piping	\$	1,800,000
<b><u>Site Work and Yard Piping</u></b>		\$ 2,200,000
<b><u>Administration Building</u></b>		\$ 2,700,000
<b><u>Electrical, Instrumentation and Control</u></b>	15%	\$ 3,600,000
<b><u>Contractor Mobilization, Bonds, Insurance and General Conditions</u></b>	15%	\$ 3,600,000
<b><u>Construction Subtotal</u></b>	<b>\$</b>	<b>30,900,000</b>
Design Contingency	20%	\$ 6,180,000
<b><u>Total Opinion of Probable Construction Cost</u></b>	<b>\$</b>	<b>37,080,000</b>

<i>Anticipated Accuracy Range:</i>	-30%	\$ 26,000,000
	+50%	\$ 55,700,000

**Assumptions**

1. OPCC includes equipment required for expansion, and no replacement of existing equipment
2. OPCC assumes no changes to effluent permit limits
3. OPCC does not include future escalation in costs
4. OPCC assumes no major changes to previous design of administration building

**City of Boerne**  
**Wastewater Treatment and Recycling Center (WWTRC)**  
**Reclaimed Water System Expansion**  
**Conceptual Opinion of Probable Construction Cost**  
**AACE Estimate Class 5 (Accuracy Range of -30% to +50%)**

**Reclaimed Water System**

Install new reclaimed water storage tank, including connections to existing piping and upgrade to reclaimed water pumps	\$	2,200,000
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<b><u>Electrical, Instrumentation and Control</u></b>	15%	\$ 400,000
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<b><u>Contractor Mobilization, Bonds, Insurance and General Conditions</u></b>	15%	\$ 400,000
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<b>Construction Subtotal</b>	<b>\$</b>	<b>3,000,000</b>
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Design Contingency	20%	\$ 600,000
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<b>Total Opinion of Probable Construction Cost</b>	<b>\$</b>	<b>3,600,000</b>
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<i>Anticipated Accuracy Range:</i>	-30%	\$ 2,600,000
	+50%	\$ 5,400,000

**Assumptions**

1. OPCC includes equipment required for expansion, and no replacement of existing equipment
2. OPCC assumes no changes to effluent permit limits
3. OPCC does not include future escalation in costs