



---

## CITY COUNCIL CONSIDERATION ITEM

### CITY OF FAIR OAKS RANCH, TEXAS

April 6, 2023

---

AGENDA TOPIC:      Consideration and possible action approving a phasing alternative regarding expansion of the existing Wastewater Treatment Plant

DATE:                      April 6, 2023

DEPARTMENT:        Public Works Department

PRESENTED BY:      Grant Watanabe, P.E., Director of Public Works & Engineering Services

---

**PURPOSE:** At the last Wastewater Treatment Plant (WWTP) Study workshop, two WWTP expansion phasing alternatives were presented and discussed: (1) single-phase expansion, or (2) multi-phase expansion. In order to begin design, a decision on the phasing of expansion improvements is needed.

#### **INTRODUCTION/BACKGROUND:**

On February 16th, city staff and consultants from Garver conducted a second workshop regarding the WWTP Site Feasibility Study which focused on the expansion of the existing WWTP. This included a summary of recommended capital improvements, two phasing alternatives, updated cost estimates and an environmental desktop review. The two phasing alternatives are shown below:

#### **Single-Phase Alternative (\$16.5M)**

- Effluent Pump Station and Conveyance Improvements
- Bottom of the Hill LS Improvements
- Oxidation Ditch to Aeration Basin Retrofit
- Aerated Sludge Holding Tank
- Headworks Grit System
- Intermediate LS Improvements

#### **Multi-Phase Alternative (\$17.2M)**

##### **Phase 1 (Immediate Needs): \$6.0M**

- Effluent Pump Station and Conveyance Improvements
- Bottom of the Hill LS Improvements

##### **Phase 2 (Future Improvements): \$11.2M**

- Oxidation Ditch to Aeration Basin Retrofit
- Aerated Sludge Holding Tank
- Headworks Grit Removal
- Intermediate LS Improvements

During the workshop, councilmembers requested additional information regarding risks and rate impact for the two alternatives. Tonight's presentation will cover both of these topics. There are risks to either alternative, some of which include potential change to ultimate build-out capacity (risk of overbuilding), potential increase/decrease in connection growth rate (risk of underutilized infrastructure or overlapping expansion phases), uncertainty in future construction and financing costs. Regarding rate impact, staff assumed debt funding for costs not covered by wastewater impact fees or cash on hand. It was also assumed that proposed debt would have a term of 20 years and interest rate of 4.0% . As part of the presentation, staff will review current rates, potential debts service fee increases, and estimated rate increases if either alternative is selected.

Staff recommends approval of the Multi-Phase Expansion alternative. Under this alternative, current funds budgeted would be used for design of Phase I improvements. This alternative is recommended since it meets immediate WWTP needs (mitigates critical/high risks identified in the study), allows time to update the Water, Wastewater & Reuse Master Plan and ultimate wastewater service area, and keeps debt service to the minimum needed at this time.

**POLICY ANALYSIS/BENEFIT(S) TO CITIZENS:**

- Supports Strategic Action Plan items for Responsible Growth Management and Reliable and Sustainable Infrastructure (CIP# 2.1S).
- Multi-Phase expansion meets immediate WWTP needs while providing flexibility to adjust to future changes which may affect cost, timing and priority of improvements.

**LONG-TERM FINANCIAL & BUDGETARY IMPACT:**

The current approved budget (\$929,711.00) is adequate for surveying and engineering services necessary for Phase 1 improvements. Financing options for construction will be discussed at a future 5-yr Financial Plan or budget workshop.

**LEGAL ANALYSIS:**

N/A

**RECOMMENDATION/PROPOSED MOTION:**

I move to approve the Multi-Phase Alternative regarding expansion of the existing Wastewater Treatment Plant.