



# Quarterly Update: Public Works & Engineering Services

Grant Watanabe, P.E.

April 21, 2022

# Mission Statement



To maintain a safe, clean, and attractive City appearance with the preservation of all City-owned facilities, roads, rights-of-way, and drainage features that promote a welcoming environment for the residents and visitors of Fair Oaks Ranch.

To maintain and administer the utilities and provide safe, uninterrupted water and wastewater services while providing exemplary customer service.

# Agenda



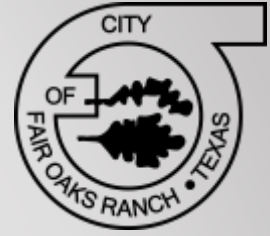
- Core Services
- Strategic Priorities and Projects
- Performance Measures
- Project Highlights
- Recent Accomplishments
- Top Issues or Other Issues
- Goals for Next Period
- Summary

# Department Core Services



- Roadway Maintenance
- Drainage Maintenance
- Facility Maintenance
- Utility Operation & Maintenance
- Utility Regulatory Compliance
- Engineering Plan/Plat Review
- Infrastructure Inspection & Acceptance
- Building Permit Issuance, Inspection & C.O.
- Capital Improvements Planning & Execution
- Establish and Implement Environmental Programs
- Comprehensive Plan & UDC Administration
- Code Compliance

# Strategic Priorities and Projects (Water/Wastewater Capital Fund)



| PROJECT STATUS LEGEND  |                                 |
|--|---------------------------------|
| <span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> | Project Planning Phase          |
| <span style="background-color: green; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>  | Funds budgeted for this project |
| <span style="background-color: blue; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>   | Project Completed/Operational   |
| <span style="background-color: red; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>    | Project Cancelled               |

| RELIABLE AND SUSTAINABLE INFRASTRUCTURE PRIORITY AREAS AND PROJECTS  | FY 21-22 BUDGETED | STATUS  | 2020   | 2021  | 2022   | 2023   | 2024   | 2025+   |
|--|-------------------|---|--|---|--|--|--|---|
| Plant 2 Hydro Tank and Variable Frequency Drives (1W)                | 903,600           | In construction (MGB)                         | <span style="background-color: green;"></span> | <span style="background-color: green;"></span>  | <span style="background-color: blue;"></span>  |  |  |   |
| Replace Waterline - Balcones Creek Crossings (not Impact Fee)(6R)    | 220,433           | Design complete, pending easement acquisition | <span style="background-color: green;"></span> | <span style="background-color: green;"></span>  | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Replace Willow Wind Dr/Red Bud Hill Water Line (not Impact Fee)(29R) | 65,370            | Design consultant selected (Weston)           |  | <span style="background-color: yellow;"></span> | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Build EST, System PRVs, and 12-inch waterline (2W)                   | 181,623           | Design 95% complete, pending site selection   | <span style="background-color: green;"></span> | <span style="background-color: green;"></span>  | <span style="background-color: green;"></span> | <span style="background-color: green;"></span> | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span> |
| Replace Rolling Acres Trail Water Line Rehabilitation (28R)          | 61,754            | Design consultant selected (Weston)           |  | <span style="background-color: yellow;"></span> | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Implement Water System EPA Risk Assessment and ERP                   | 10,326            | Completed                                     |  | <span style="background-color: green;"></span>  | <span style="background-color: blue;"></span>  |  |  |   |
| Old Fredericksburg Waterline (not impact fee) (21W)                  | 50,000            | In design (KFA)                               |  |   | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Existing WWTP Solids Handling Improvements (4.1R)                    | 920,210           | Design complete, out for bid                  | <span style="background-color: green;"></span> | <span style="background-color: green;"></span>  | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Finalize & Advance Wastewater Treatment Plant Study (2.1S)           | 200,000           | Study ongoing (Garver)                        | <span style="background-color: green;"></span> | <span style="background-color: green;"></span>  | <span style="background-color: green;"></span> | <span style="background-color: blue;"></span>  |  |   |
| Implement Wastewater System EPA Risk Assessment and ERP              | 38,212            | Completed                                     |  | <span style="background-color: green;"></span>  | <span style="background-color: blue;"></span>  |  |  |   |

# Strategic Priorities and Projects (Governmental Fund)



| PROJECT STATUS LEGEND |                                 |
|-----------------------|---------------------------------|
| Yellow                | Project Planning Phase          |
| Green                 | Funds budgeted for this project |
| Blue                  | Project Completed/Operational   |
| Red                   | Project Cancelled               |

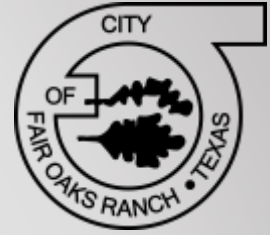
| RELIABLE AND SUSTAINABLE INFRASTRUCTURE<br>PRIORITY AREAS AND PROJECTS | FY 21-22<br>BUDGETED | STATUS                               | 2020   | 2021   | 2022   | 2023   | 2024 | 2025+ |
|--|----------------------|--------------------------------------|--------|--------|--------|--------|------|-------|
| Drainage 7840 Silver Spur Trail (Drainage CIP # 17)                    | 95,000               | Design consultant selected (Halff)   | Yellow | Yellow | Green  | Blue   |      |       |
| Drainage 29010 Tivoli Way (Drainage CIP #34)                           | 50,000               | Design consultant selected (PD)      | Yellow | Yellow | Green  | Blue   |      |       |
| Drainage 7715 Fair Oaks Parkway (Drainage CIP #25)                     | 40,000               | On Hold                              | Yellow | Yellow | Yellow | Yellow |      |       |
| Drainage 7967 Turf Paradise Lane (Drainage CIP #37)                    | 40,000               | In-house Maintenance Program         | Yellow | Yellow | Green  | Green  | Blue |       |
| Drainage 7900 Fair Oaks Parkway (Drainage CIP #30)                     | 10,000               | Design consultant selected (GEC)     | Yellow | Yellow | Blue   |        |      |       |
| Drainage 7820 Rolling Acres Trail (Drainage CIP #5)                    | 85,000               | Design consultant selected (Ardurra) | Yellow | Yellow | Green  | Blue   |      |       |
| Drainage Repairs at Rockinghorse Lane (Drainage CIP #61)               | 75,000               | Design consultant selected (RPS)     | Yellow | Yellow | Green  | Blue   |      |       |
| Modify Chartwell and Dietz Intersection                                | 175,000              | Design complete, out for bid         |        | Yellow | Blue   |        |      |       |
| Bond Development Program   | 200,000              | Pending retreat discussion           |        | Yellow | Green  | Blue   |      |       |
| Implement Fuel Station for City Fleet Vehicles                         | 15,000               | Out for bid                          |        | Yellow | Blue   |        |      |       |

# Performance Measures

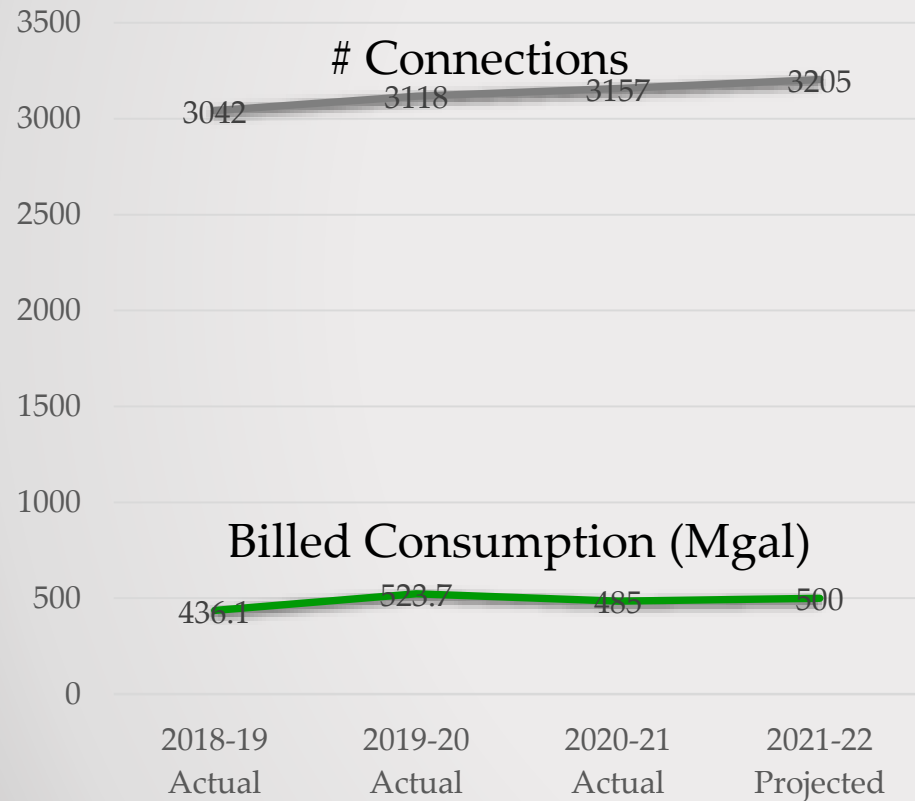


| Strategic Pillar                        | Performance Measure                  | FY 2018-19<br>Actual | FY 2019-20<br>Actual | FY 2020-21<br>Actual | FY 2021-22<br>YTD |
|---|--------------------------------------|----------------------|----------------------|----------------------|-------------------|
| Reliable and Sustainable Infrastructure | # Work Orders Completed - Maint      | 116                  | 145                  | 105                  | 344               |
| Reliable and Sustainable Infrastructure | Ave. Work Order Duration (days)      | 5.2                  | 4.0                  | 5.6                  | 2.5               |
| Reliable and Sustainable Infrastructure | # Work Orders Completed - Water      | 915                  | 759                  | 923                  | 356               |
| Reliable and Sustainable Infrastructure | Ave. Work Order Duration (days)      | 4.4                  | 4.0                  | 3.5                  | 3.6               |
| Reliable and Sustainable Infrastructure | # Work Orders Completed - Wastewater | 103                  | 128                  | 88                   | 65                |
| Reliable and Sustainable Infrastructure | Ave. Work Order Duration (days)      | 15.9                 | 19                   | 2.8                  | 1.6               |

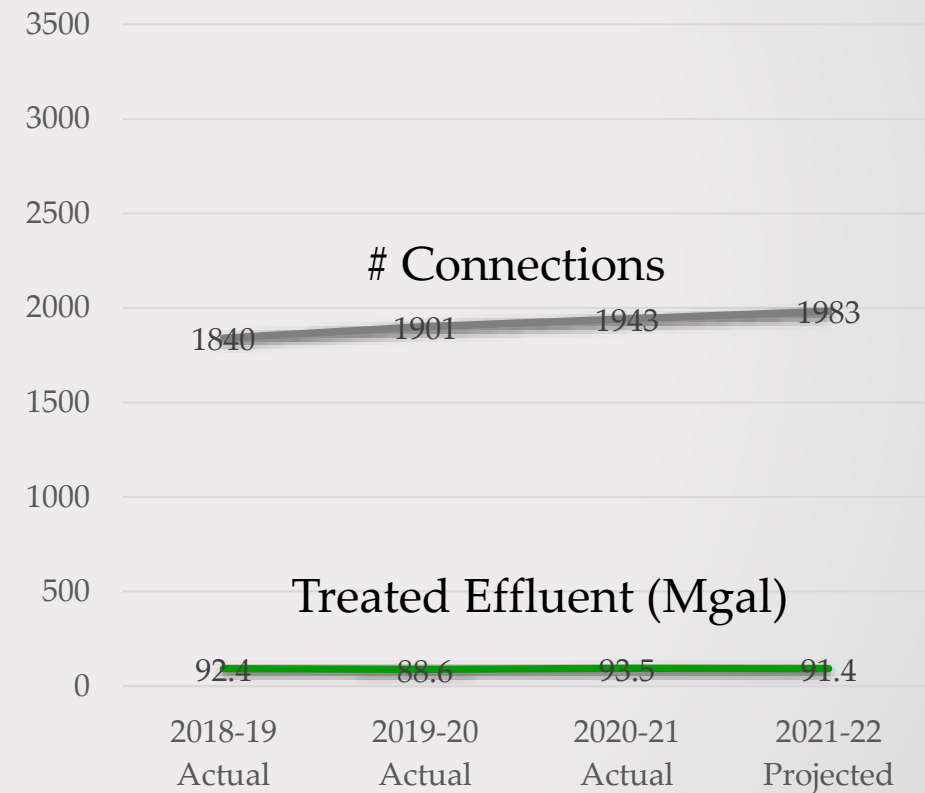
# Performance Measures



## Water Utility



## Wastewater Utility





# Performance Measures

| Strategic Pillar              | Performance Measure                                 | FY 2018-19<br>Actual | FY 2019-20<br>Actual | FY 2020-21<br>Actual | FY 2021-22<br>YTD |
|-------------------------------|---|----------------------|----------------------|----------------------|-------------------|
| Responsible Growth Management | Building Codes -<br># Building Plans Reviewed       | 710                  | 970                  | 1043                 | 406               |
| Responsible Growth Management | Building Codes -<br># Permits Issued (Total)        | 624                  | 891                  | 939                  | 354               |
| Responsible Growth Management | Building Codes -<br># Permits Issues (new SF homes) | 118                  | 157                  | 247                  | 73                |
| Responsible Growth Management | Building Codes -<br># Inspections Conducted         | 1898                 | 2297                 | 2751                 | 1095              |

Additional metrics being developed for Engineering & Planning, Code Compliance and Environmental Compliance

# Project Highlight

## Plant #2 Hydropneumatic Tank



**Scope:** Replace existing hydropneumatic tank with larger 9,000-gallon hydro-pneumatic tank, and upgrade pumps to 400 GPM with variable speed drives and associated electrical improvements.

**Budget:** \$946,815 (FY2021-2022) - Construction

**Design Firm:** CP&Y, Inc., San Antonio, TX

**Construction Firm:** MGB Construction, Castroville, TX

### Construction Project Timeline (subject to change)

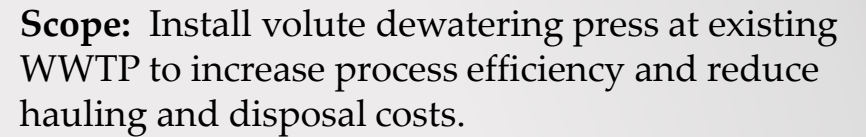
Nov 2021 – Contract awarded

Dec 2021 – Construction started

Jul 2022 – Construction complete (estimated)

**% Completed:** 60

**Status Update:** Awaiting new hydro-tank delivery



**Design Firm:** Malone & Wheeler, Inc., Austin, TX  
**Construction Firm:** TBD

Apr 2022 – Posted bid opportunity  
May 2022 – Contract award  
Jul 2022 – Construction start  
Dec 2022 – Construction complete

**Status Update:** Bids due May 11<sup>th</sup>

# Project Highlight

## Dietz/Chartwell Safety Improvements



**Scope:** Realign Dietz/Chartwell intersection to create 4-leg standard intersection to improve pedestrian safety and traffic flow in the vicinity of Fair Oaks Ranch Elem School

**Budget:** \$175k (FY2021-2022) – Construction

**Design Firm:** Legacy Engineering Grp, San Antonio, TX

**Construction Firm:** TBD

**Project Timeline (subject to change)**

Apr 2022 – Posted bid opportunity

May 2022 – Contract award

Jun 2022 – Construction start

Aug 2022 – Construction complete (estimated)

**% Completed:** 0

**Status Update:** Bids due April 29<sup>th</sup>

# Project Highlight

## City Hall Renovation



**Scope:** Renovate City Hall to maximize office space

**Budget:** \$991.7 (FY2021-2022) – Architect/Construction

**Design Firm:** Studio S Architekt, Fair Oaks Ranch, TX

**Construction Firm:** Waterman Construction LLC, San Antonio, TX

### **Project Timeline**

Apr 2020 – Design contract award

Jan 2021 – Construction contract award

Mar 2022 – Construction GMP approve

Apr 2022 – Construction start

Oct 2022 – Construction complete (estimated)

**% Completed:** 10%

**Status Update:** Under construction

# Recent Accomplishments



- Approved 5-Yr CIPs for water, wastewater & reuse, roadways and drainage
- Established Professional Service Agreements with 9 consultants for general engineering support and CIP design work
- Started construction on City Hall Renovation project
- Adopted stormwater pollution prevention and construction hours ordinances
- Awarded WWTP of the Year (Category 1)
- Awarded Wastewater Operator of the Year (Bill Champion)





# Top Issues or Other Issues

- Staffing
  - Engineering – difficulty meeting pay expectations, 6 months to fill vacant Environmental PM position
  - Maintenance – high turnover, lost 3 (1 retirement, 1 to private sector, 1 to City of Boerne) but hired 3 employees
- In-House Drainage Maintenance Program
  - 2 FTEs unfilled – positions have been advertised since Dec 2021
  - Limitations on making improvements to private property/gated communities
- Elevated Storage Tank Construction
- Future Water Supply Needs
- Bond Program & CIP Implementation



# Goals for Next Period

- Strategic undertakings
  - Coordinate with GBRA regarding future water allocations
  - Manage WWTP Study and Analysis of Alternatives
  - Support Bond Program Development
- Financial goals
  - Revisit Utility Rate Study (focus on correcting wastewater shortfall)
  - Update Fee Schedule
- Other key efforts
  - Negotiate fee and issue Work Authorizations for SAP projects
  - Coordinate all Annual Street Maintenance Plan contracts/road closures
  - Implement GIS-based Work Order/Asset Management System
  - Advance UDC amendment to support Growth Management
  - Workforce Development – Career progression guidance



# Questions?

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