

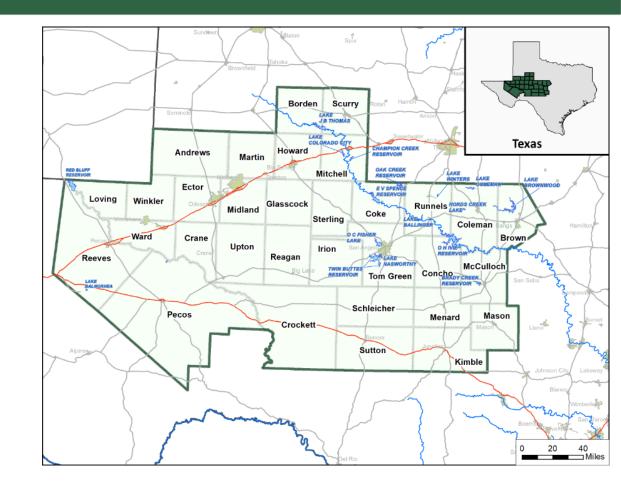
**2021 REGION F WATER PLAN** 



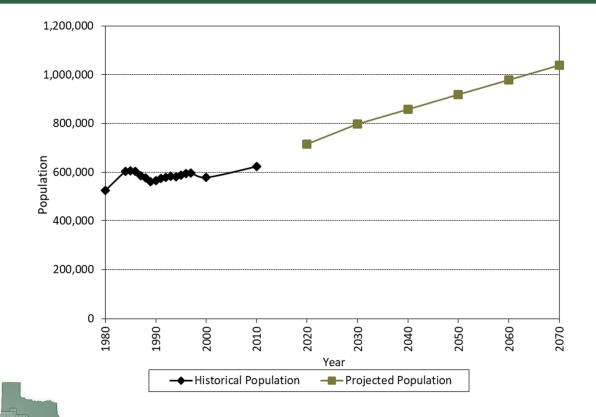
# 2021 Region F Water Plan Overview

### Region F Overview

- 32 counties
- Upper Colorado and Pecos River Basins
- Four major, ten minor aquifers
- Economic drivers
  - Oil and gas
  - Agribusiness



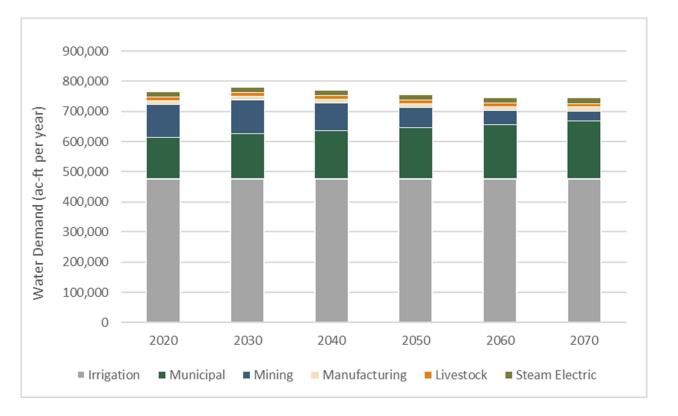
### Population



- Population in Region F projected to grow 45% over next 50 years
- Majority of people live in urban areas or small- to moderate-sized rural communities
- Permian Basin portions of Region F are expected to experience population growth

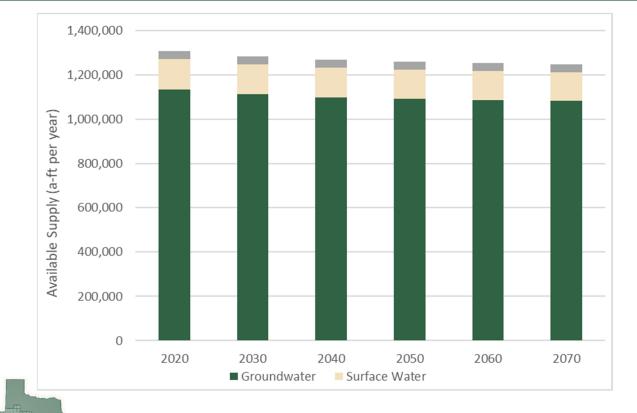
## Water Demands

- Irrigated agriculture is by far the largest water use category (> 60%)
- Municipal demands are projected to grow by nearly 40% from 2020 to 2070
- Mining is significant in early decades but is expected to decline as O&G deposits are developed





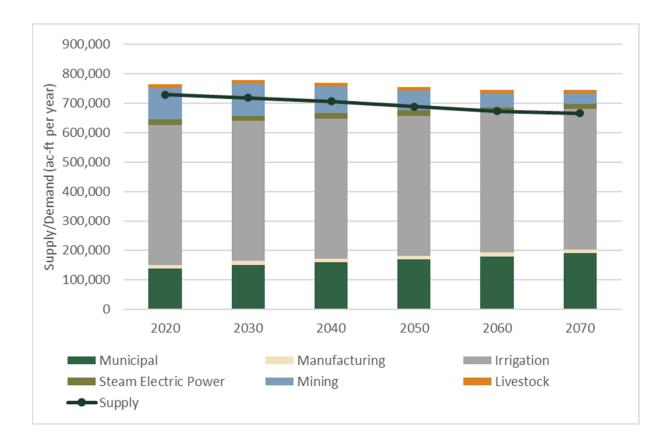
#### Water Supply Analysis (Total Supplies)



- Groundwater accounts for 87% of available water supply
- Nearly 100,000 acre-feet per year of reservoir supplies available in 2020 (WAM Run 3)
- Reuse supplies developed in 10 counties; recycled mining water supplies developed in 11 counties

### Identification of Water Needs (<u>Connected</u> Supplies v. Demands)

- Needs reach nearly 103,000 acre-feet per year by 2070
- Most needs are associated with municipal water use
  - Subordination strategy meets some of this need, but not all
- Irrigation, mining, and steam electric power are identified with needs greater than 10,000 acre-feet per year



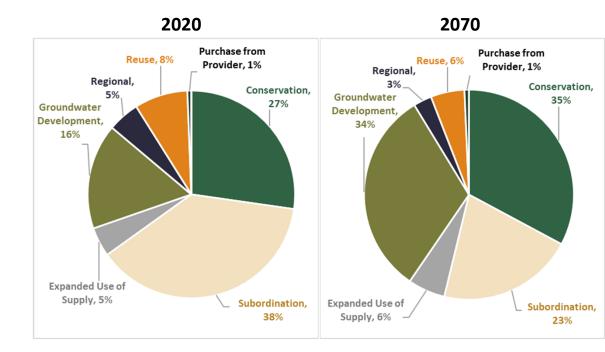
#### **Major Water Providers**



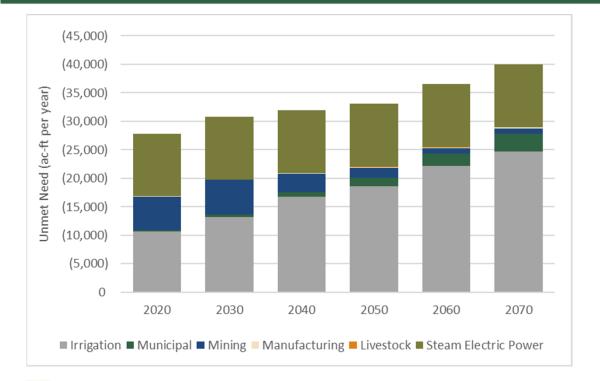
- Region F Definition: Entities that provide over 10,000 acre-feet per year of supply
- Supply over 75% of municipal demands in the region
  - Supply various non-municipal users (mining, irrigation, steam electric)
- Water management strategies comprise nearly 50% of total strategy volume for the region by 2070

### Water Management Strategies

- 31 recommended strategies applicable to WUGs
  - Excluding subordination, conservation, regional WMS
- 16 alternative strategies
- Majority of strategies involve groundwater
- Total supply from WMS
  - Over 200,000 acre-feet per year
  - Subordination and conservation account for 58-65%



### **Unmet Needs**



#### • Unmet needs

- Eight counties
- Majority are irrigation, SEP, or mining
- Many caused by MAG limitations in Andrews and Mitchell Counties

#### Implementation since 2016 RWP

• Three strategies implemented from 2016 RWP







MINING WELL FIELD RECYCLING IN AT LEAST 11 COUNTIES CITY OF EDEN DIRECT NON-POTABLE REUSE

PURCHASING WASTEWATER EFFLUENT FROM MIDLAND

## WMS Comparison to 2016 RWP

- 17 new recommended strategies
  - Excluding new conservation strategies
- Seven new alternative strategies
- Two strategies fundamentally altered
  - Big Spring WTP
  - San Angelo Concho River Water Project
- 48 strategies included in 2016 RWP removed

