

# ***2011 South Central Texas Regional Water Plan***

**Lower Guadalupe Water Supply Project  
Retrospective and  
New Scenarios for Technical Evaluation**

**November 1, 2007**



# ***2001 Regional Plan***

## ***Lower Guadalupe River Diversions***

### **Water Sources**

- GBRA water rights (67,200 acft/yr)**
- New surface water appropriation (54,500 acft/yr)**
- Gulf Coast aquifer (41,400 acft/yr)**

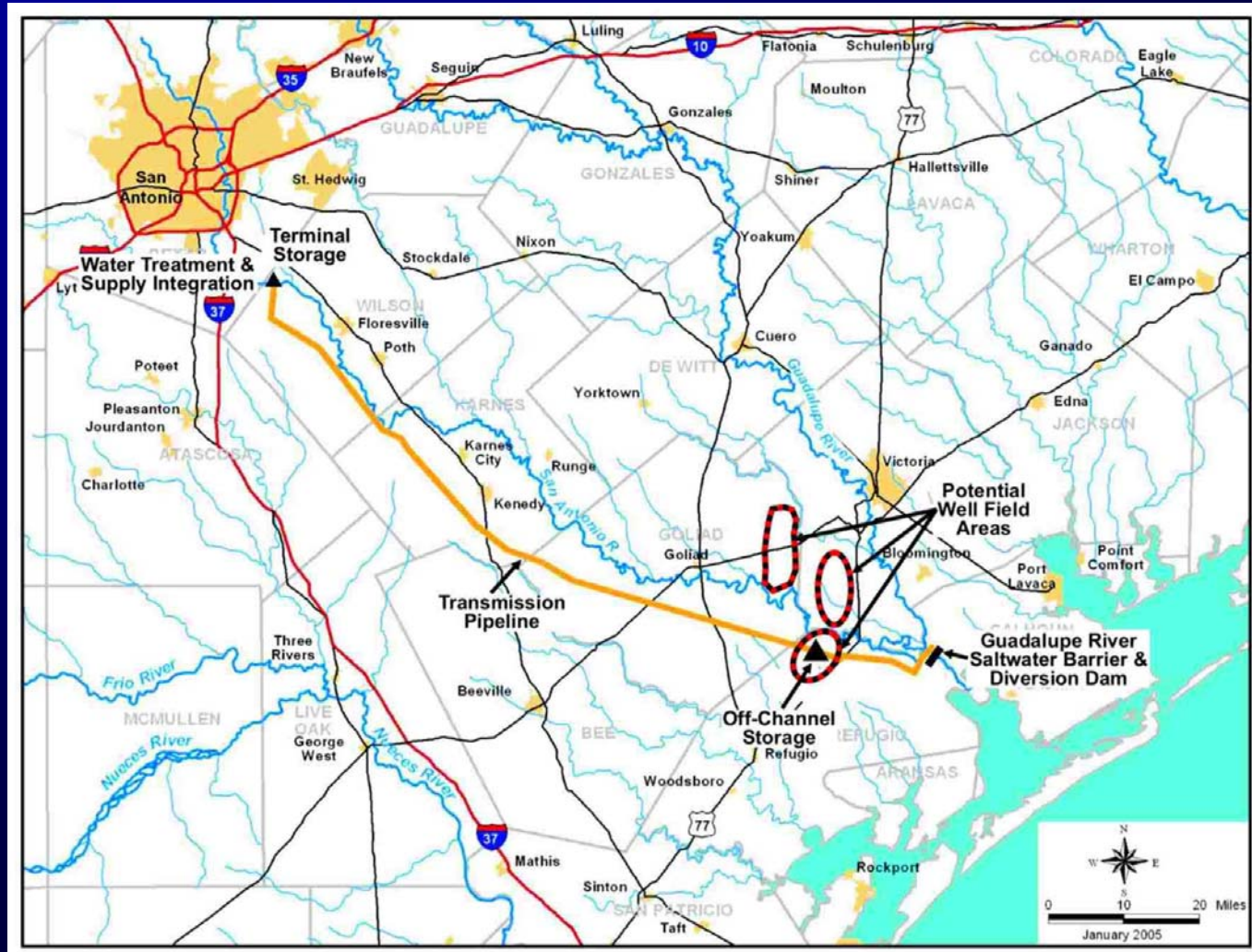
### **Facilities**

- Diversion pump station near Guadalupe River  
Saltwater Barrier**
- Off-channel storage (50,000 acft)**
- Transmission, well field(s), groundwater collection,  
treatment, & integration**

### **Delivery Point(s)**

- Bexar County, SARA District**

# 2005 Initially Prepared Regional Plan Lower Guadalupe Water Supply Project



# ***2005 Initially Prepared Regional Plan Lower Guadalupe Water Supply Project***

## **Water Sources**

- GBRA water rights (70,000 acft/yr)**
- New surface water appropriation (289,000 acft/yr)**
- Gulf Coast aquifer (41,400 acft/yr)**

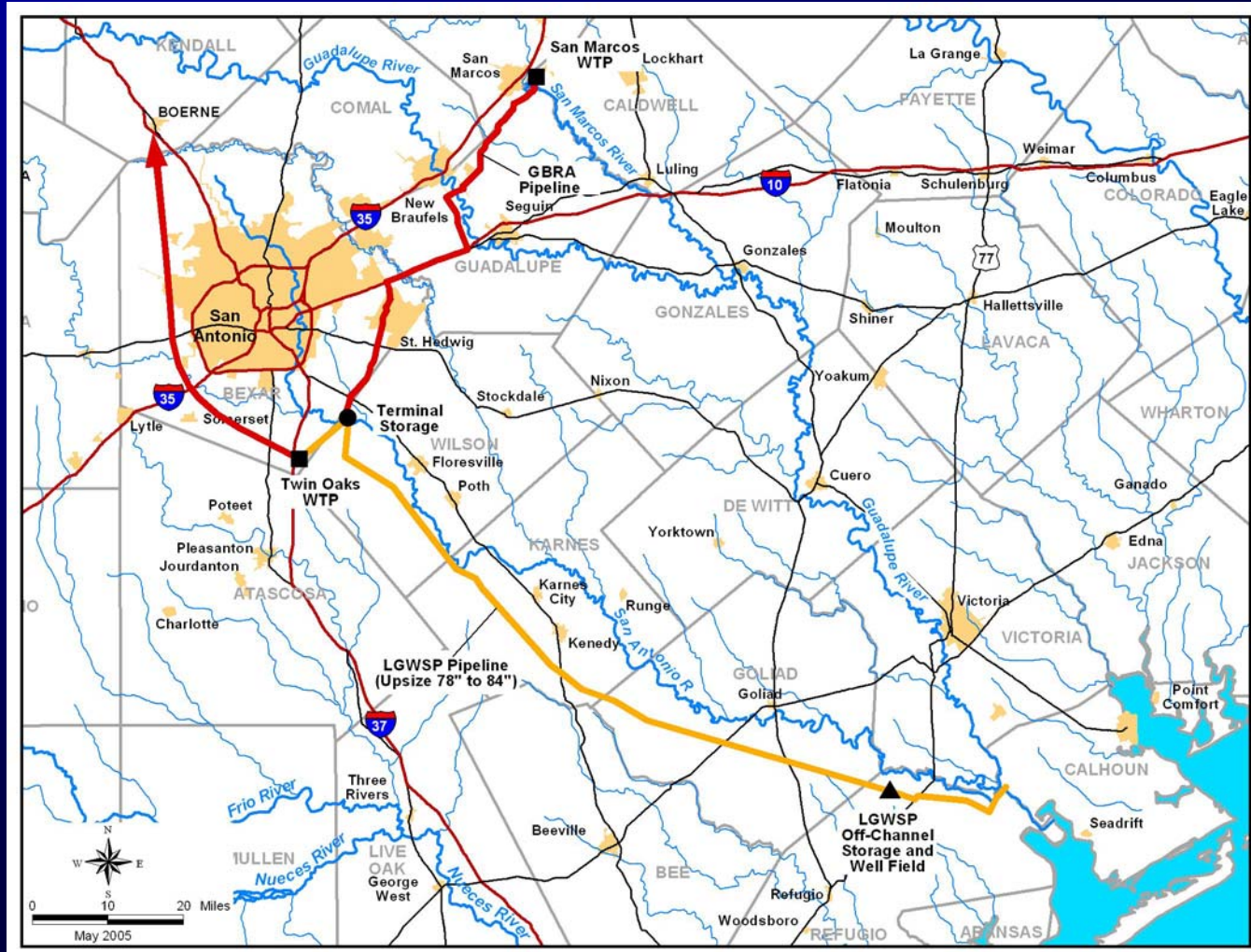
## **Facilities**

- Diversion pump station near Guadalupe River  
Saltwater Barrier**
- Off-channel storage (50,000 acft)**
- Transmission, well field(s), groundwater collection,  
treatment, & integration**

## **Delivery Point(s)**

- Bexar County, SARA District**

# 2005 Initially Prepared Regional Plan Increased LGWSP Capacity for GBRA Needs



# ***2005 Initially Prepared Regional Plan Increased LGWSP Capacity for GBRA Needs***

## **Water Sources**

- GBRA water rights (36,710 acft/yr)**

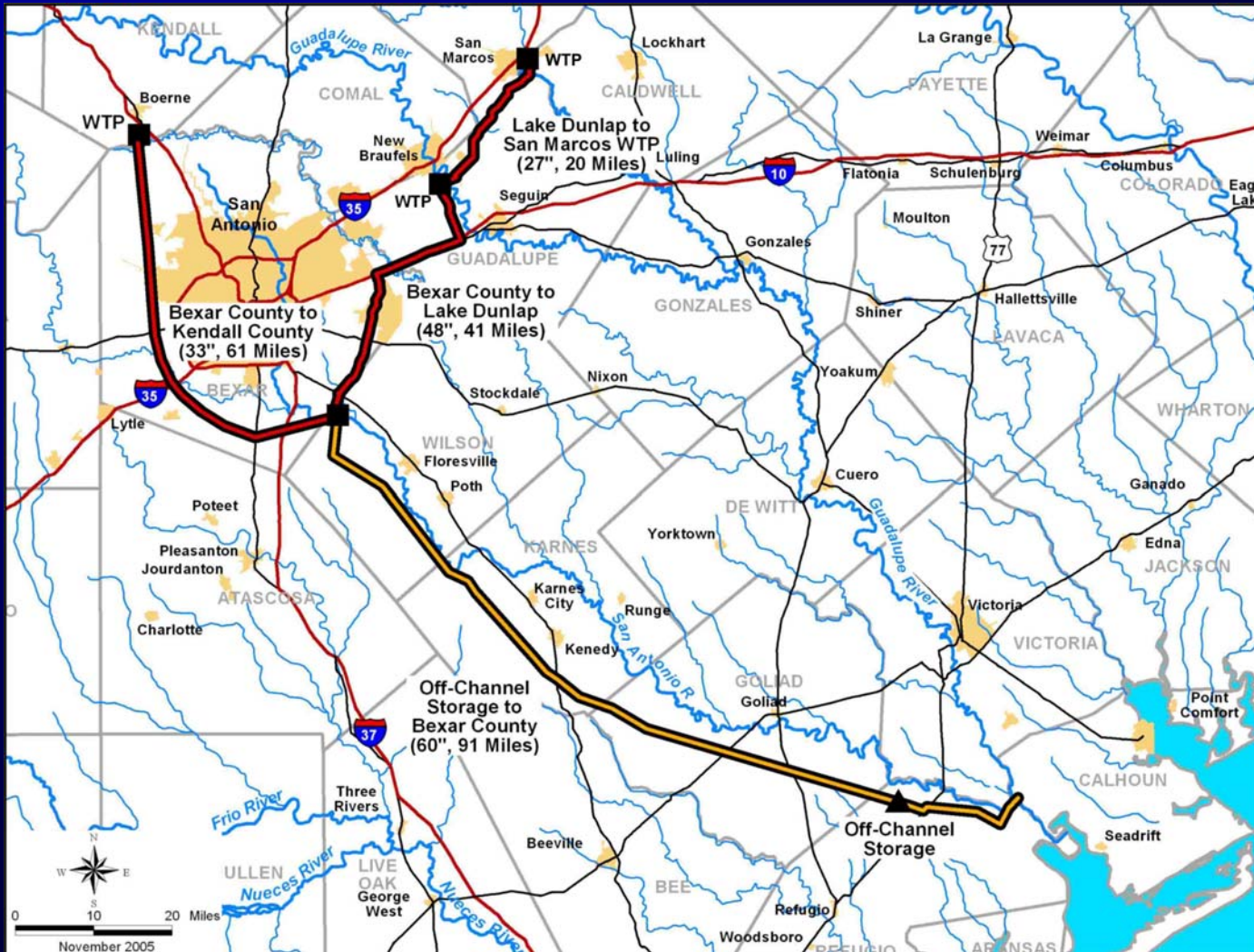
## **Facilities**

- Upsized diversion, pumping, and transmission capacity**
- Supplemental transmission and treatment**

## **Delivery Point(s)**

- GBRA District**

# 2006 Regional Plan LGWSP for GBRA Needs



# ***2006 Regional Plan LGWSP for GBRA Needs***

## **Water Sources**

- ❑ GBRA water rights (70,000 acft/yr)**
- ❑ New surface water appropriation (289,000 acft/yr)**

## **Facilities**

- ❑ Diversion pump station near Guadalupe River  
Saltwater Barrier**
- ❑ Off-channel storage (50,000 acft)**
- ❑ Transmission, treatment, & integration**

## **Delivery Point(s)**

- ❑ GBRA District - Caldwell, Comal, Guadalupe, Hays,  
& Kendall**

# **2011 Regional Plan**

## **Study 1 — LGWSP for GBRA Needs**

### **Initial Objective**

**Define three (3) scenarios of source composition and facilities for technical evaluation.**

### **Potential Water Sources**

**Surface Water – GBRA water rights; other water rights; new appropriations; Canyon Reservoir; & seawater.**

**Groundwater – Gulf Coast (fresh or brackish); Carrizo; Wilcox (fresh or brackish); & Simsboro.**

### **Potential Facilities**

**Diversion pump station; transmission pipeline(s) & pump station(s); off-channel storage; well field(s); groundwater collection; water treatment; & integration.**

### **Delivery Points**

**GBRA statutory district.**

### **Additional Considerations (HB3776)**

**100,000 acft/yr for lower basin needs; fresh groundwater prohibition; property owner consent for off-channel storage; & consensus criteria for environmental flow needs.**

# ***2011 Regional Plan***

## ***Study 1 — LGWSP for GBRA Needs***

### ***Scenario 1 (GBRA)***

#### **Water Sources**

- ❑ GBRA water rights (60,000 acft/yr)**

#### **Facilities**

- ❑ Diversion pump station at existing station site on Calhoun Canal System**
- ❑ Off-channel storage as needed**
- ❑ Transmission within GBRA district, treatment, & integration**

#### **Delivery Point(s)**

- ❑ GBRA District – Caldwell, Comal, Guadalupe, Hays, & Kendall**

#### **Key Assumptions**

- ❑ GBRA water rights exercised per certificates of adjudication**
- ❑ Standard 2006 Plan hydrologic assumptions w/ Edwards per SB3**

# **2011 Regional Plan**

## **Study 1 — LGWSP for GBRA Needs**

### **Scenario 2 (Staff Workgroup)**

#### **Water Sources**

- ❑ GBRA water rights (75,000 acft/yr) w/ delivery of 60,000 acft/yr**
- ❑ Brackish groundwater as needed (50% Gulf Coast, 50% Wilcox)**

#### **Facilities**

- ❑ Diversion pump station at existing station site on Calhoun Canal System**
- ❑ Off-channel storage as needed**
- ❑ Transmission within GBRA district, production/storage well field(s), groundwater collection/distribution, treatment, & integration**

#### **Delivery Point(s)**

- ❑ GBRA District – Caldwell, Comal, Guadalupe, Hays, & Kendall**

#### **Key Assumptions**

- ❑ GBRA water rights used subject to Consensus Environmental Criteria**
- ❑ Standard 2006 Plan hydrologic assumptions w/ Edwards per SB3**

# ***2011 Regional Plan***

## ***Study 1 — LGWSP for GBRA Needs***

### ***Scenario 3 (Staff Workgroup)***

#### **Water Sources**

- ❑ GBRA water rights (75,000 acft/yr) w/ delivery of 60,000 acft/yr**

#### **Facilities**

- ❑ Diversion pump station at existing station site on Calhoun Canal System**
- ❑ Off-channel storage as needed**
- ❑ Transmission within GBRA district, treatment, & integration**

#### **Delivery Point(s)**

- ❑ GBRA District – Caldwell, Comal, Guadalupe, Hays, & Kendall**

#### **Key Assumptions**

- ❑ GBRA water rights used subject to Consensus Environmental Criteria**
- ❑ Standard 2006 Plan hydrologic assumptions w/ Edwards per SB3**