

LCRA's Raw Water Supplies



Overview

- LCRA's Water Supplies
 - How much water does LCRA have?
 - Current system
 - Water rights
 - Water Management Plan (WMP)
 - How much water is contracted for or otherwise committed?
 - Firm supplies
 - Interruptible supplies
 - Where are our customers using water? How much is being used?
 - What is LCRA doing to increase supplies?

Current and Future Sources of Firm Water – Potential Strategies

Current Firm Supply

Lakes Buchanan/Travis Maximum Firm Supply:
445,226 AFY

+ Owned Run-of-River Rights

	Authorized (AFY)
Garwood ¹	133,000
Gulf Coast ²	262,500
Lakeside ²	186,250
Pierce Ranch ²	55,000
Total	636,750 AFY

Firm Supply Range:
200,000 AFY to 500,000 AFY

Current Commitments = 507,000 AFY
Sources include: Lakes Buchanan/Travis and LCRA Run-of-River Rights

Current Maximum Firm Water Use = 143,600 AFY

+ In The Works

- LCRA-SAWS Water Project Studies (up to 150,000 AFY)
- Excess Flows Permit (Firm Yield ~ unconfirmed)
- Groundwater (LCRA-SAWS Water Project)
- Return Flows from Interbasin Transfer, Water Conservation, Desalinization, etc.

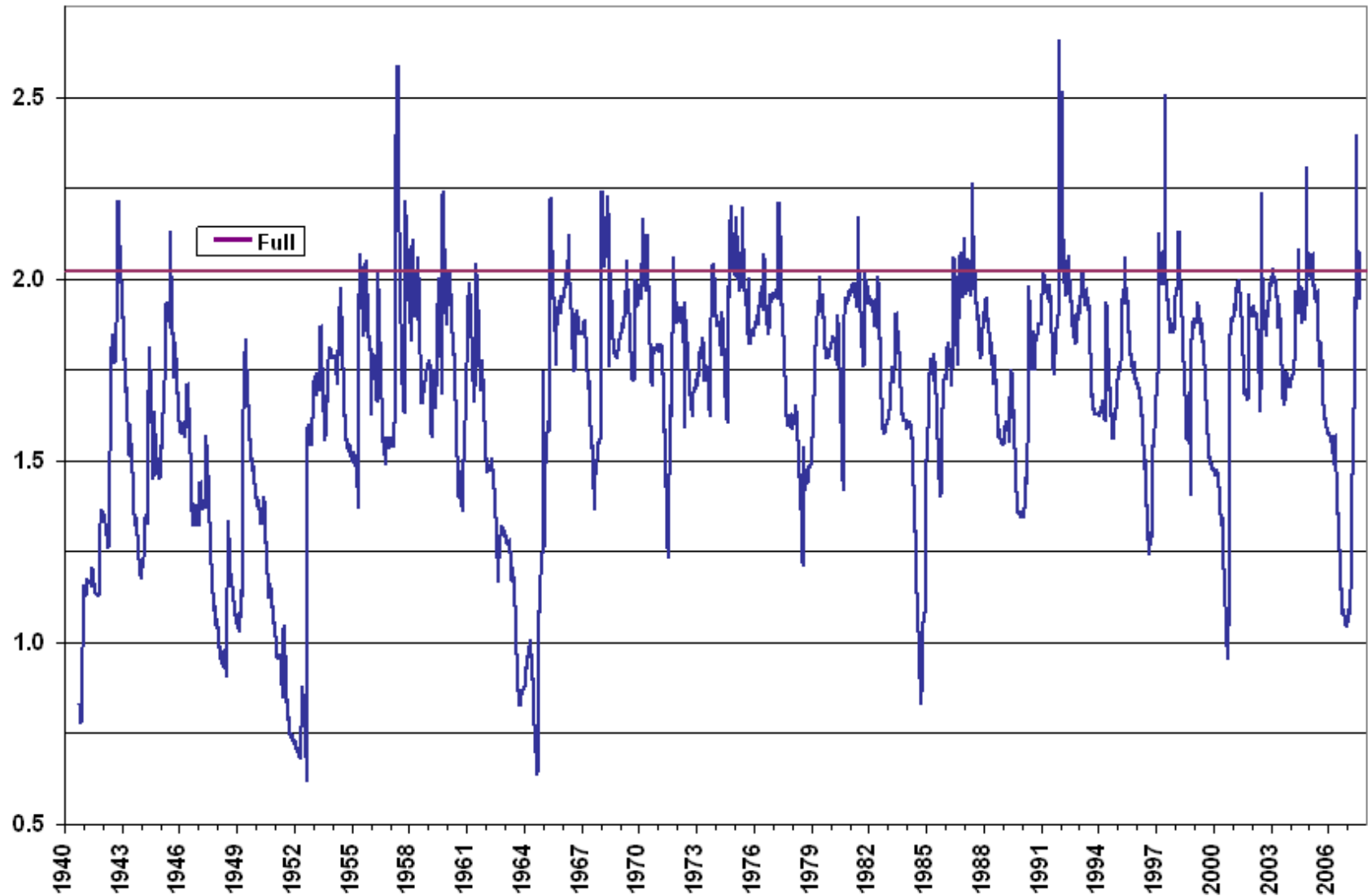
Note 1: Application to amend this water right is under TCEQ review.

Note 2: These three rights are subordinated to City of Austin's senior municipal water right.

Historic Look At Combined Storage in Lakes Buchanan and Travis

Highland Lakes - Combined Storage

(Million Acre-Feet)



LCRA's Water Management Plan



- First of its kind in the state
- LCRA is only river authority with a comprehensive water management plan requirement
- Why does LCRA have a Water Management Plan and no one else does?

Water Management Plan – What is it?

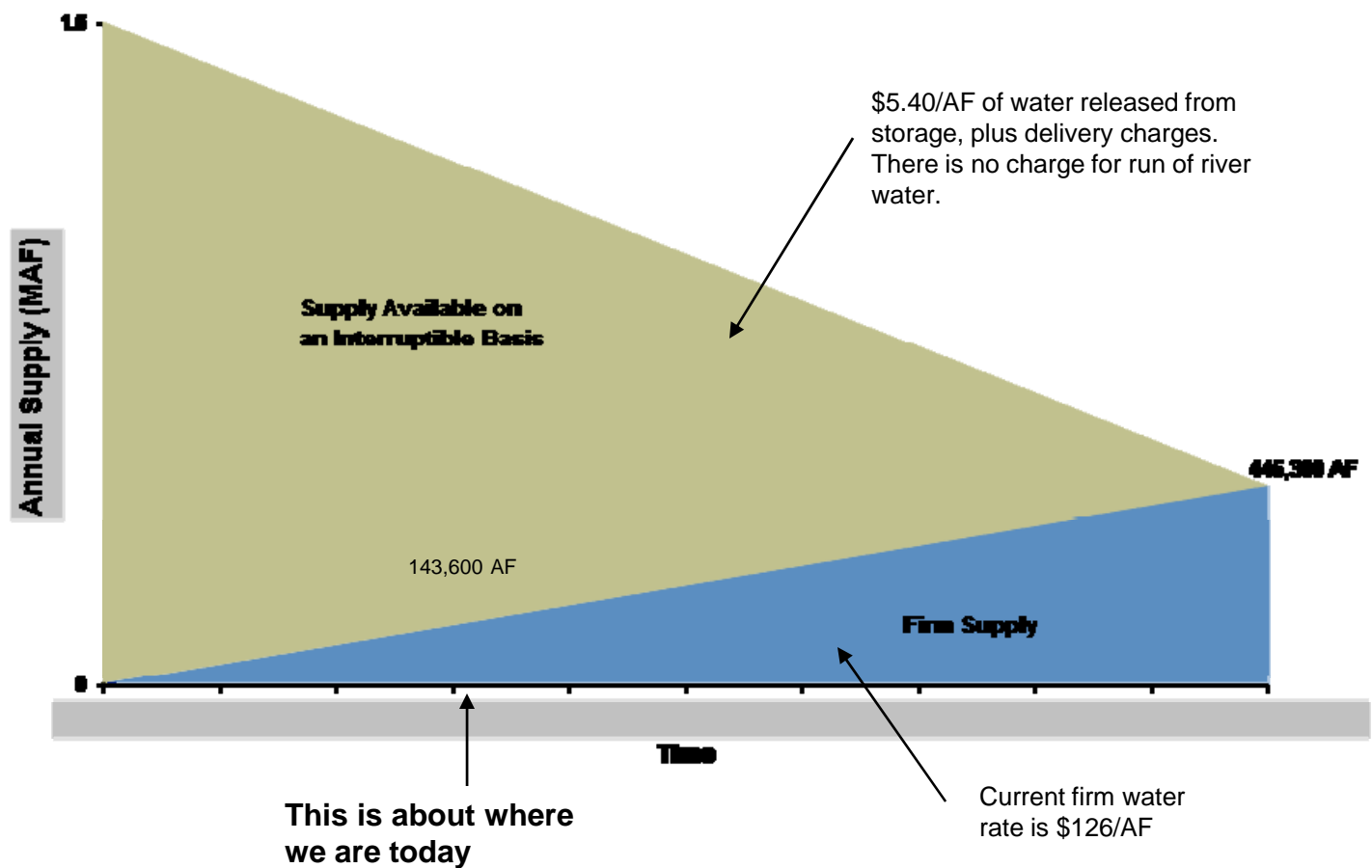
- Amendment to the water rights for Lakes Buchanan & Travis
- **Determines day-to-day operation of Lakes Buchanan & Travis and allocation of inflow below Austin**
- First developed in 1989 & amended twice
- Any changes proposed must be approved by LCRA Board and TCEQ
- Current TCEQ-approved WMP dated 1999
- Latest update submitted to TCEQ on May 2003
- Still Pending
- **Stakeholder process**

WMP: Key Elements

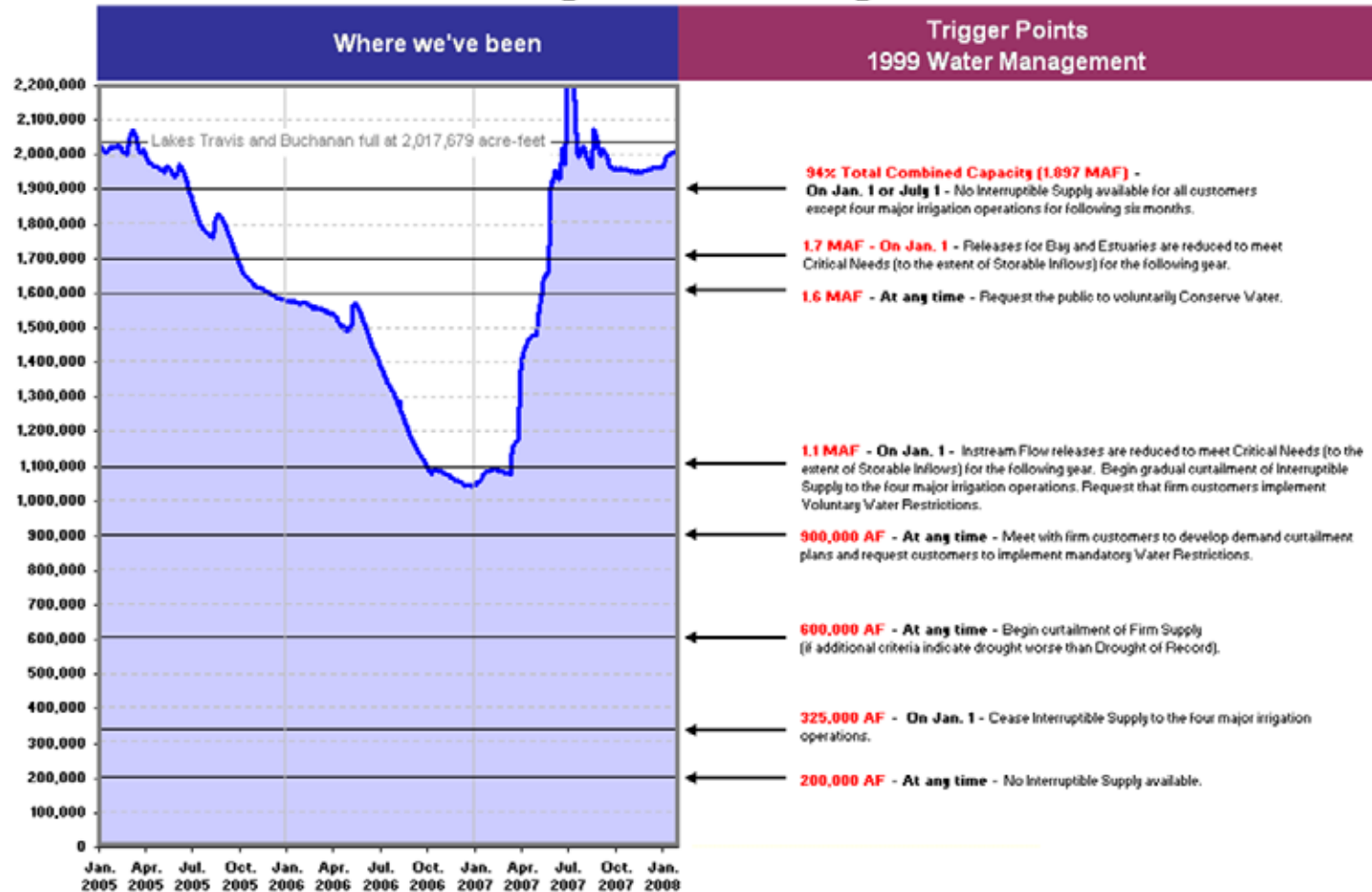
- **Allocate Supply**
 - Establishes a firm yield for lakes- **445,266 AFY**
 - Sets up allocation procedures and operating policies
 - Defines trigger levels for curtailment of interruptible water to customers
 - Quantify annual interruptible supply availability
 - Develop guidelines for meeting downstream environmental needs
- **Drought Management Plan**
 - Planning for management through the “Drought-of-Record”
 - Establishes criteria for determining drought more severe than “Drought-of-Record”

Firm vs Interruptible Supply Availability in Lakes Buchanan and Travis


Firm and Interruptible Supply - Concept



Highland Lakes Storage



Note: One acre-foot equals 325,851 gallons.

* These are typical ranges for lake levels on Buchanan and Travis when the water stored in both lakes is at this amount.  Historic Lake Capacity (AF). Levels could vary depending on rainfall patterns.

% Storage Capacity	Impacted
100%	None
94%	Non-Irrigation Operations Customers for interruptible supply
84%	Bay and Estuary Inflows (switch to "Critical")
79%	"Firm" Voluntary Conservation
55%	<ul style="list-style-type: none"> - Irrigation Operations Curtailment of interruptible supply - Instream Flows (switch to "Critical")
45%	"Firm" Mandatory Conservation
30%	Possible "Firm" Curtailment

Highland Lakes Water Supply

What is it used for?

- **Firm Supply of the Lakes = 445,266 ac-ft/yr**
- **Part of LCRA's Firm Supply**
 - **Contracts with entities for Municipal & Industrial (M&I) needs**
 - Sole source and back-up existing water rights
 - **LCRA's own M&I needs**
 - Retail water systems and power plants – Ferguson, Sim Gideon-Lost Pines & FPP
 - **Environmental needs**
- **Interruptible Supply of up to 1.5 million ac-ft/yr**
 - **For the four major irrigation operations– to supplement the RoR supply**
 - annual contracts
 - price per acre-foot significantly lower than the Firm water price
 - **For environmental needs**

Environmental Flow Needs

- Instream Flow Needs for the Lower Colorado River
 - multiple locations downstream of Lake Travis
 - Critical & Target
- Freshwater Inflow needs for Bays and Estuaries of Matagorda Bay
 - Critical & Target

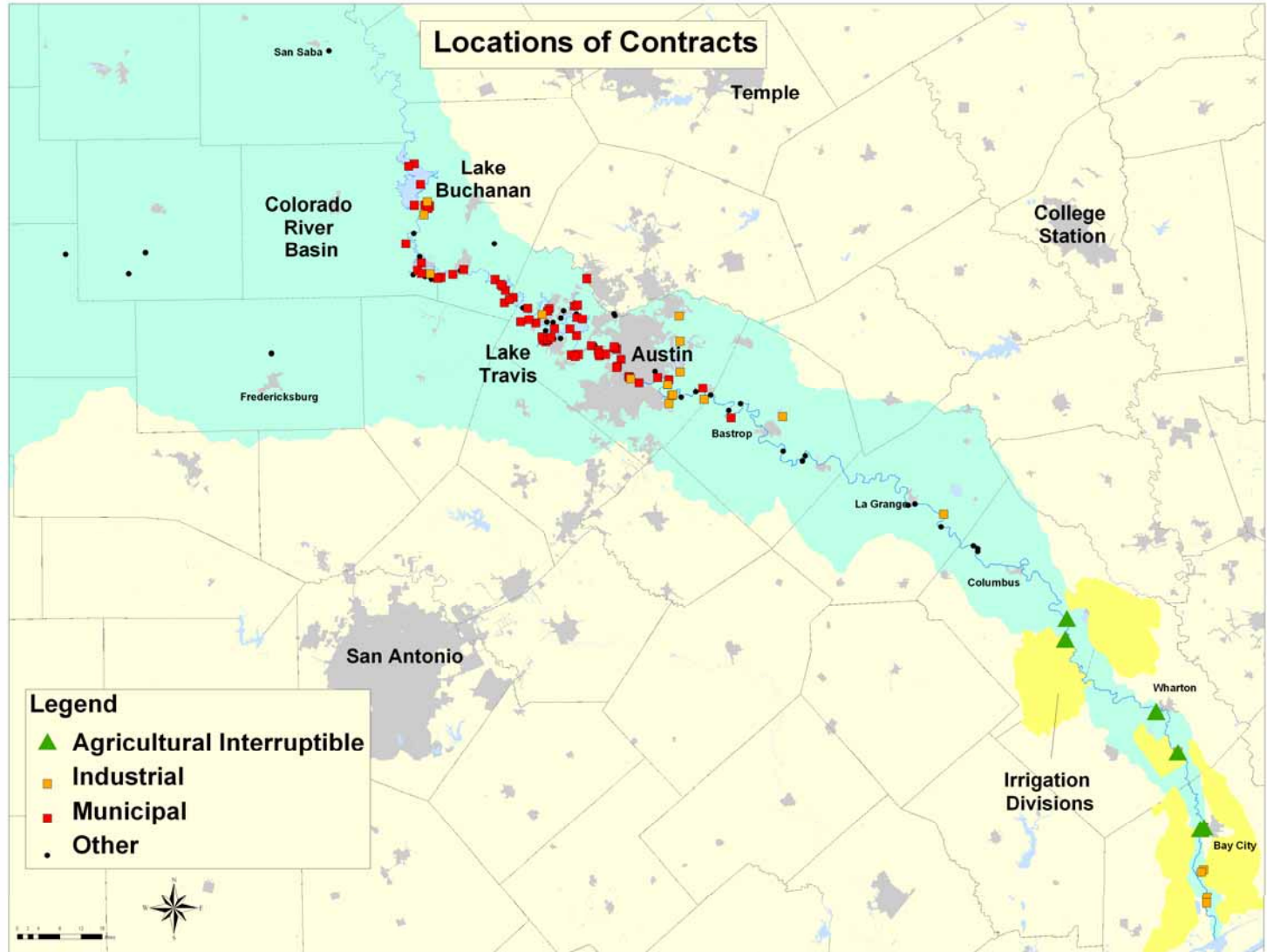


How much water is contracted for or otherwise committed?

Current Commitments

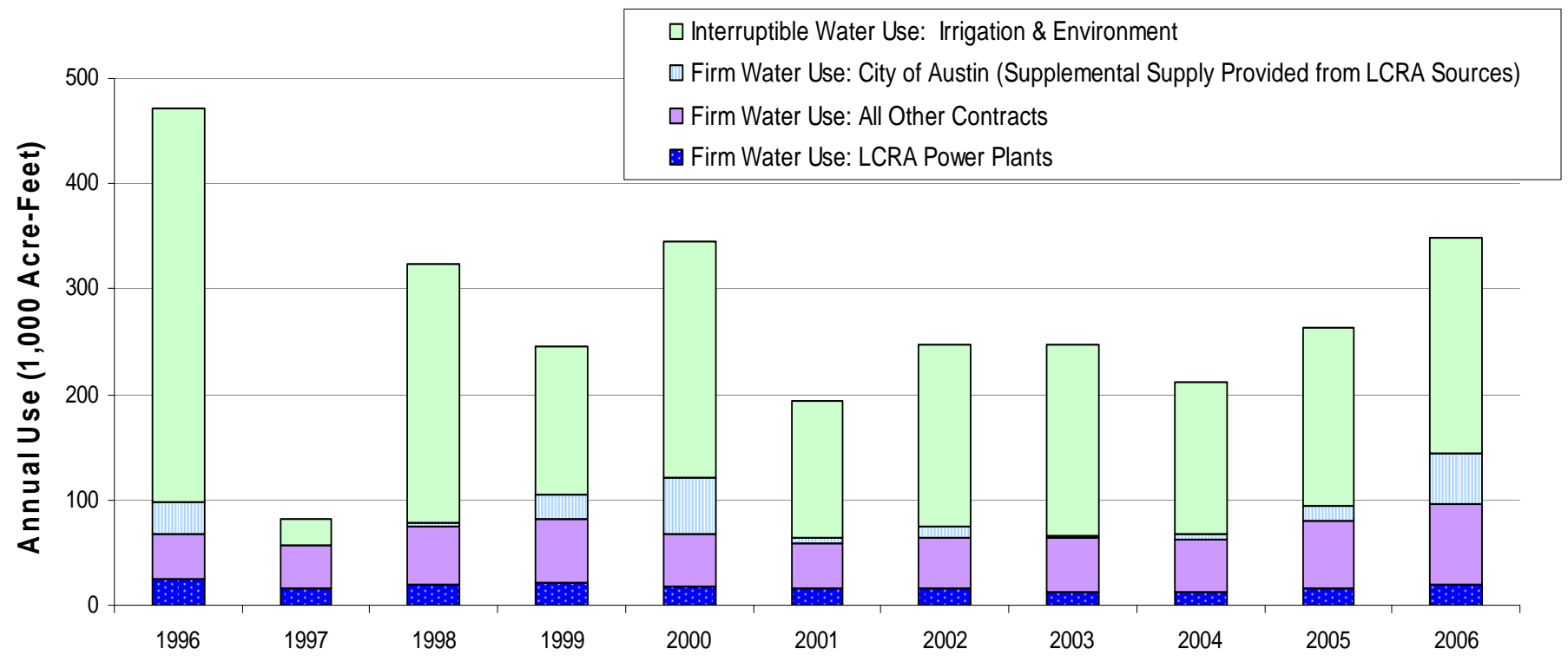
January 2008 Board Operations Report		Amounts are in acre-feet per year (AFY)
		Firm Water
1	TOTAL CONTRACTS COMMITMENTS	457,613
	City of Austin- Estimated backup water supply to City's water rights	138,560
	Brazos River Authority	25,000
	Leander	24,000
	Cedar Park	18,000
	Pflugerville	12,000
	South Texas Project	40,000
	LCRA Power Plants	63,851
	LCRA Water & Wastewater Utilities	10,888
	Remainder Contracts/Resolutions	91,874
	Environmental - Current & Pending WMP	33,440
2	Currently Reserved By LCRA Board in WMP for Future Use	50,000
3	Total of Commitments & Reserved:	507,613

**Where are our customers using water?
How much is being used?**



Water Being Used from Lakes

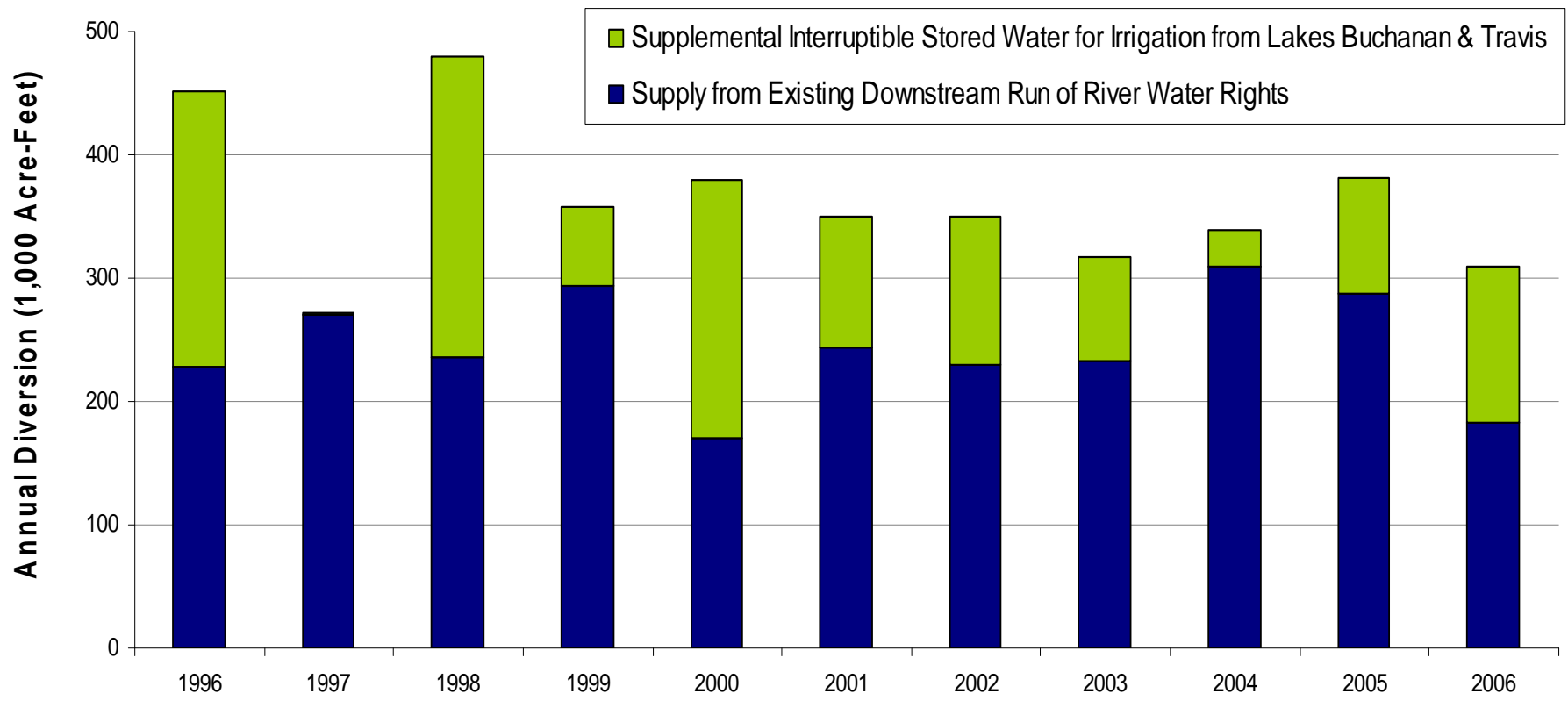
Total Water Use from Lakes Buchanan and Travis, 1996 - 2006 *



* In addition to providing firm water supply from Lakes Buchanan & Travis, LCRA also provides interruptible stored water supply for irrigation and for meeting environmental flow needs

Irrigation Use

Diversions by the Four Downstream Irrigation Operations, 1996 - 2006



What is LCRA doing to increase supplies?

Major Events

- **1960** Gulf Coast Water Right Acquired
- **1976** STP Settlement
- **1983** Lakeside Water Right Acquired
- **1985** LCRA/CRMWD Stacy Reservoir Agreement
- **1987** Water Rights Adjudicated
- **1989** First Water Management Plan Approved
- **1991** Instream Use Study
- **1992** Water Management Plan First Amendment Approved
- **1993** Pierce Ranch Water Right Acquired (partial)
- **1997**
 - Freshwater Inflow Needs Study (FINS)
 - Corpus Christi purchase 35,000 acre-feet of the Garwood water right
- **1999**
 - Water Management Plan Second Amendment Approved
 - Garwood Water Right Acquired
 - Contract with the City of Austin
 - Flood Flow Permit Application Submitted
- **2000** Remainder Pierce Water Right Acquired
- **2001** First Region K Water Plan Completed
- **2003**
 - San Antonio Water System Feasibility Study Begins
 - Water Management Plan Third Amendment submitted to TCEQ
- **2006**
 - Second Region K Water Plan Completed
 - Freshwater Inflows Needs Update Completed
 - STPNOC Settlement
- **2007** Austin Bed & Banks and Supplemental Water Supply agreements

LCRA's Pending Water Right Applications @ TCEQ:

- **Excess Flows / Flood flows application #5731**
 - Submitted on March 31, 1999
 - Last activity: TCEQ Public meeting held on September 26, 2006
- **Garwood Amendment – to add diversion points**
 - Submitted on August 28, 2002
 - Last activity: Under technical review by TCEQ
- **Reuse Application - Amend Lakes Buchanan and Travis Water Rights:**
 - Submitted on November 12, 2002
 - After City of Austin's Application for Reuse on April 5, 2002
 - Last activity: application still pending
- **WMP Amendment – to change the trigger level and more**
 - Submitted on May 16, 2003
 - Latest activities: TCEQ Public meeting November 11, 2004. TCEQ response to comments: March 31, 2005
 - LCRA met with various protestants on August 15, 2006 for a potential Settlement Agreement
- **STP water right Amendment – to add a diversion point**
 - Submitted on April 24, 2006
 - As a result of the Settlement Agreement between LCRA and STPNOC in January 2006, the previous Contract was revised.

Questions?

