

Water Supply Resource Report

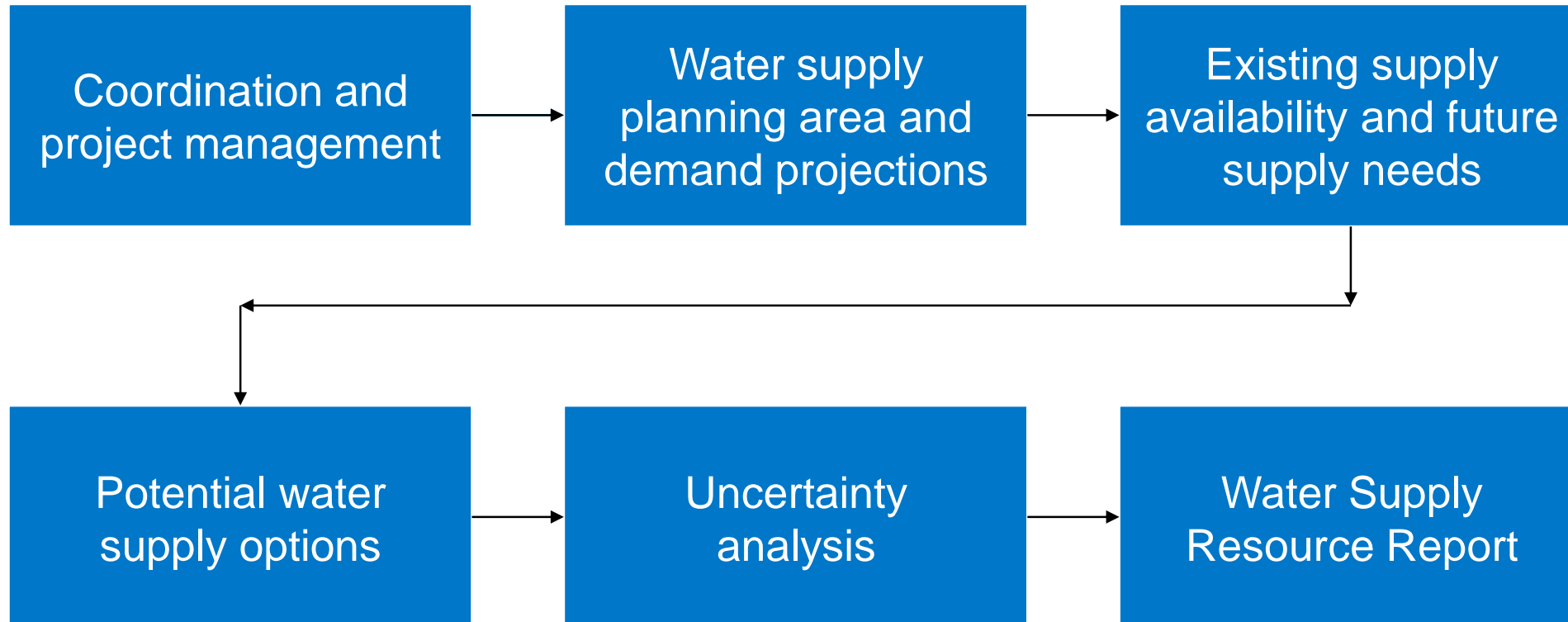
Water Operations Committee Meeting
Sept. 20, 2023



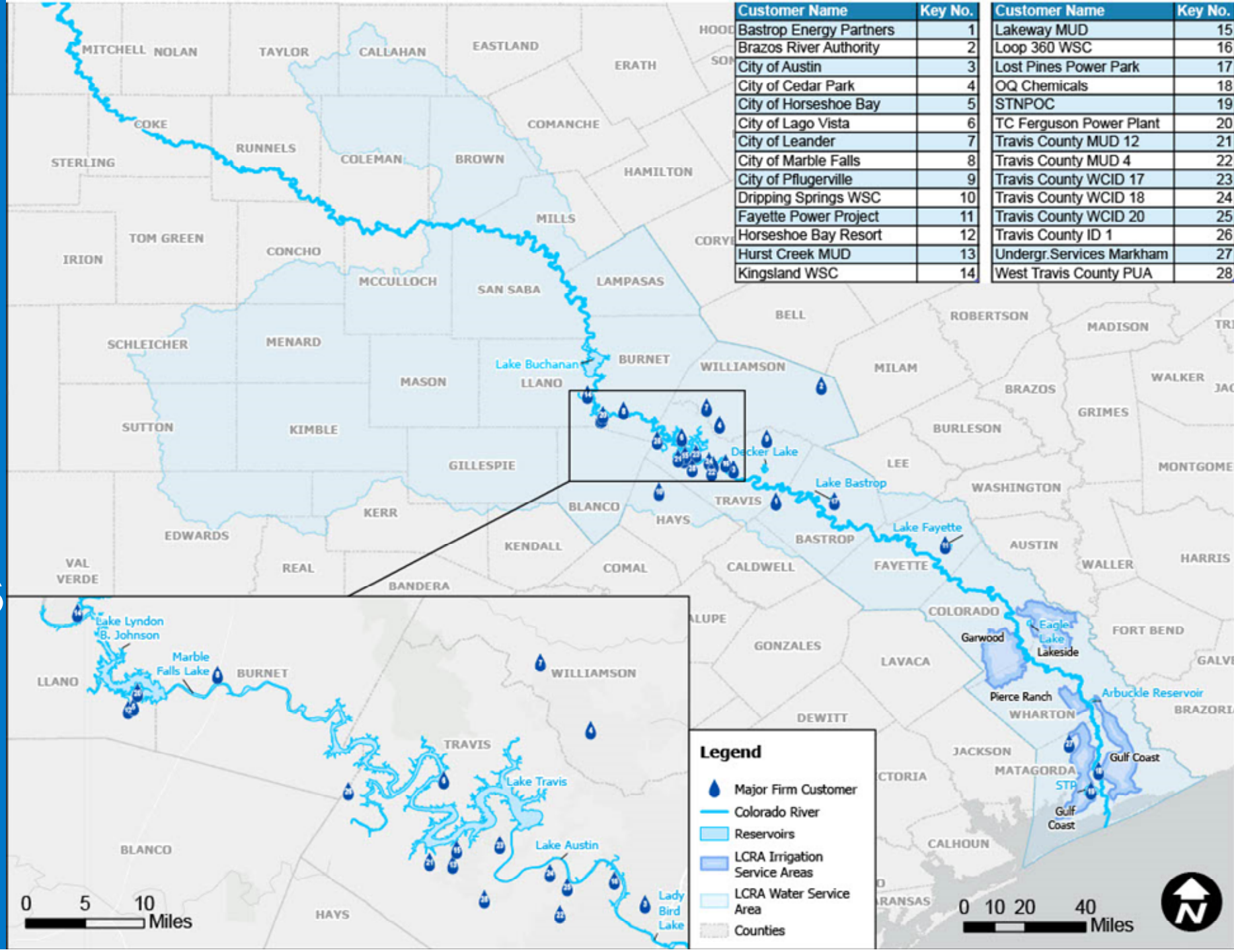
Water Supply Resource Report

- **Update to Water Supply Resource Plan**
- **Long-term plan through 2080**
- **Includes input from customers on future water demands**
- **LCRA developed projected future commitments for firm water**
- **Compared commitments to the firm supply to determine needs for additional firm supply**

Outline of WSRR Scope



Population and Demand Projections



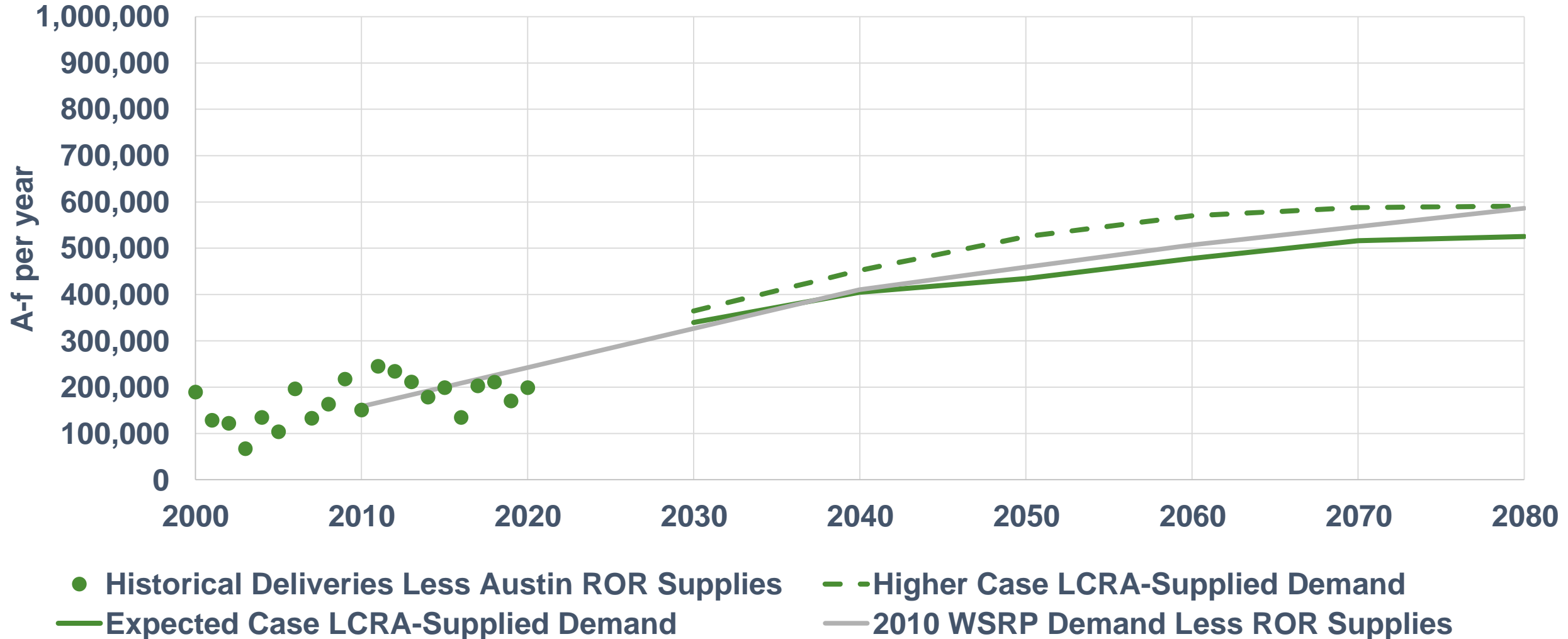
Outreach to LCRA Firm Customers

- **Met with 15 large firm water customers individually to discuss projections**
 - Provided a survey packet with draft projections in advance
 - Smallest customer with which we met: maximum annual quantity of 3,000 acre-feet per year
- **Sent a survey packet with draft projections to 12 additional customers**
 - Received feedback from five customers
 - Smallest customer to which we sent a survey packet: MAQ of 830 a-f per year

Demand Projections

- **Two demand projection scenarios (by decade 2030 to 2080)**
 - 1) Expected case demand based on current trends
 - 2) Higher case demand assuming growth beyond expected
- **Potential future customers**
 - 1) Highland Lakes industrial allowance: 5,000 a-f per year by 2030
 - 2) Downstream industrial allowance (Bay City/Arbuckle reach): 30,000 a-f per year by 2030
 - 3) High-demand case – additional downstream industrial allowance: 20,000 a-f per year by 2050

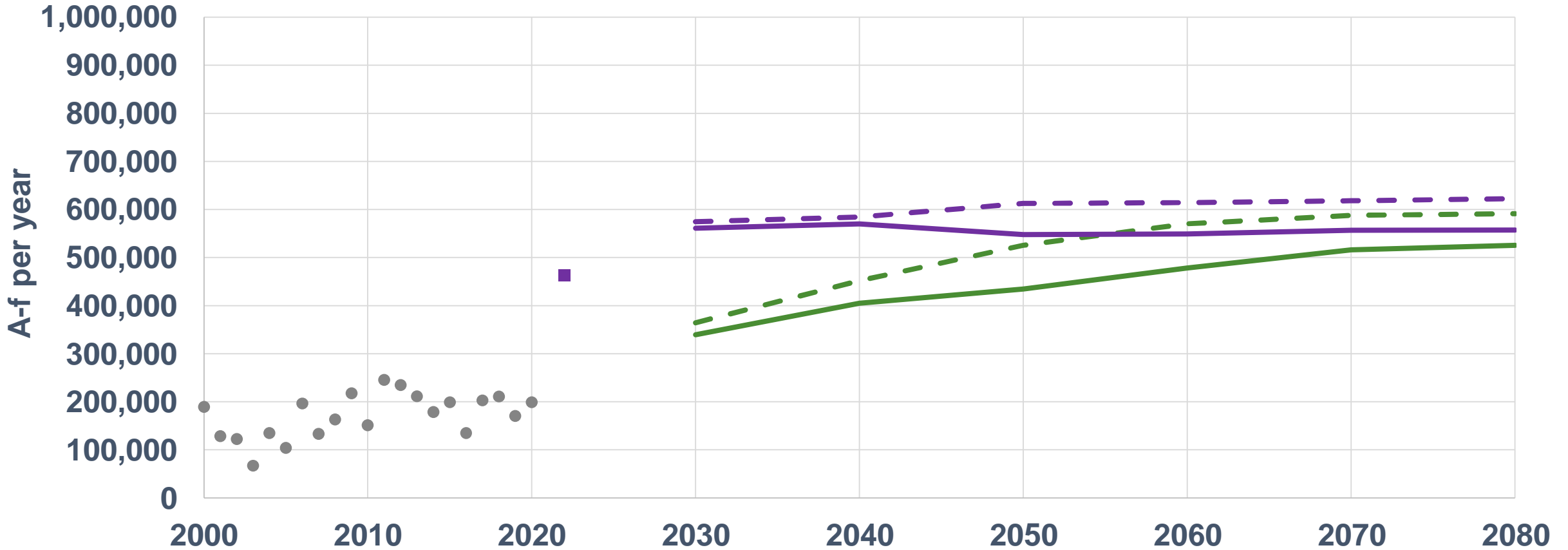
Projection Results – Firm Demands



ROR: run of river

2010 WSRP: 2010 Water Supply Resource Plan

Projection Results – Commitments



● Historical Deliveries Less Austin ROR Supplies

— Expected Case LCRA-Supplied Demand

- - Higher Case Firm Commitments

— Higher Case LCRA-Supplied Demand

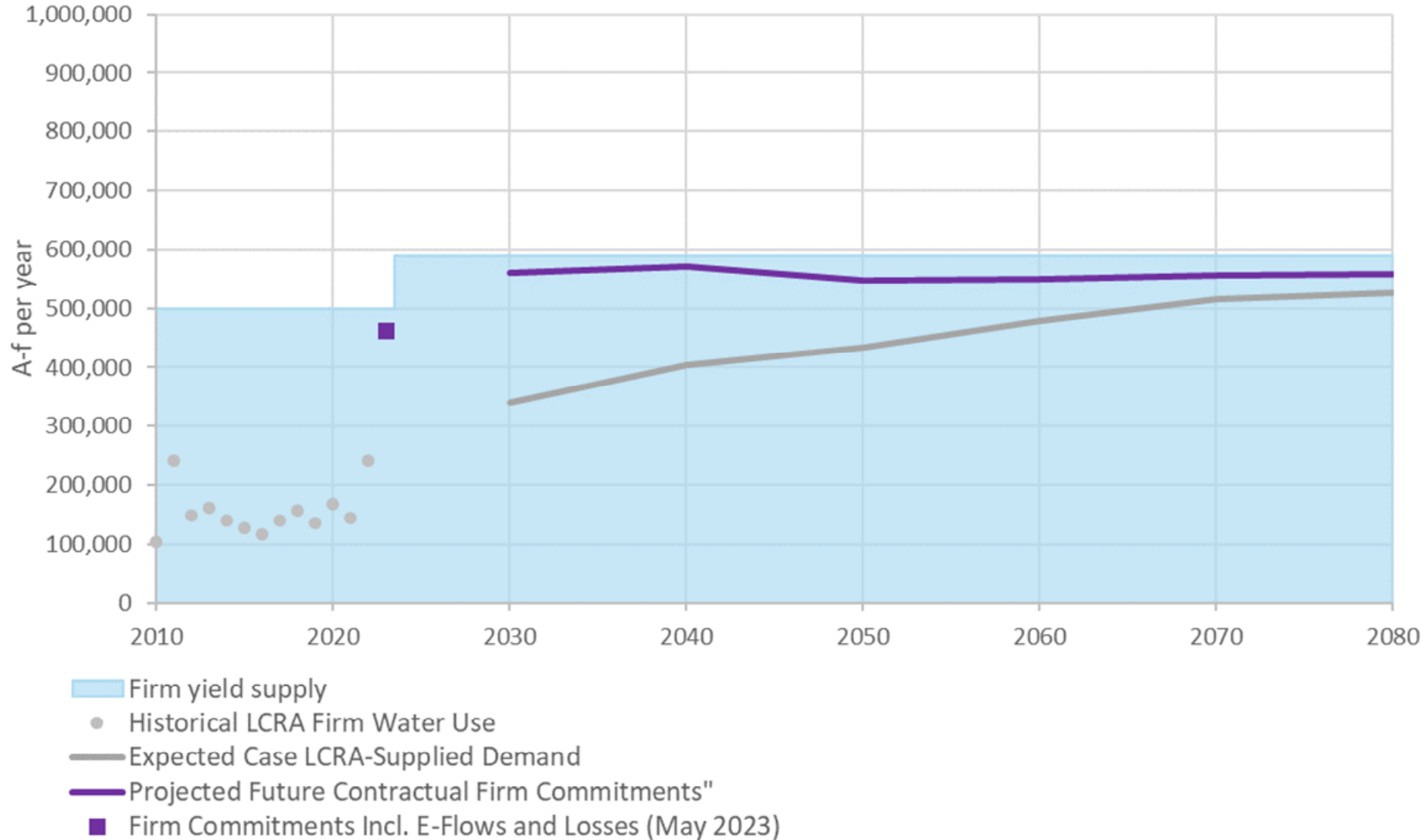
— Expected Case Firm Commitments

■ Firm Commitments Incl. E-Flows and Losses (Nov. 2022)

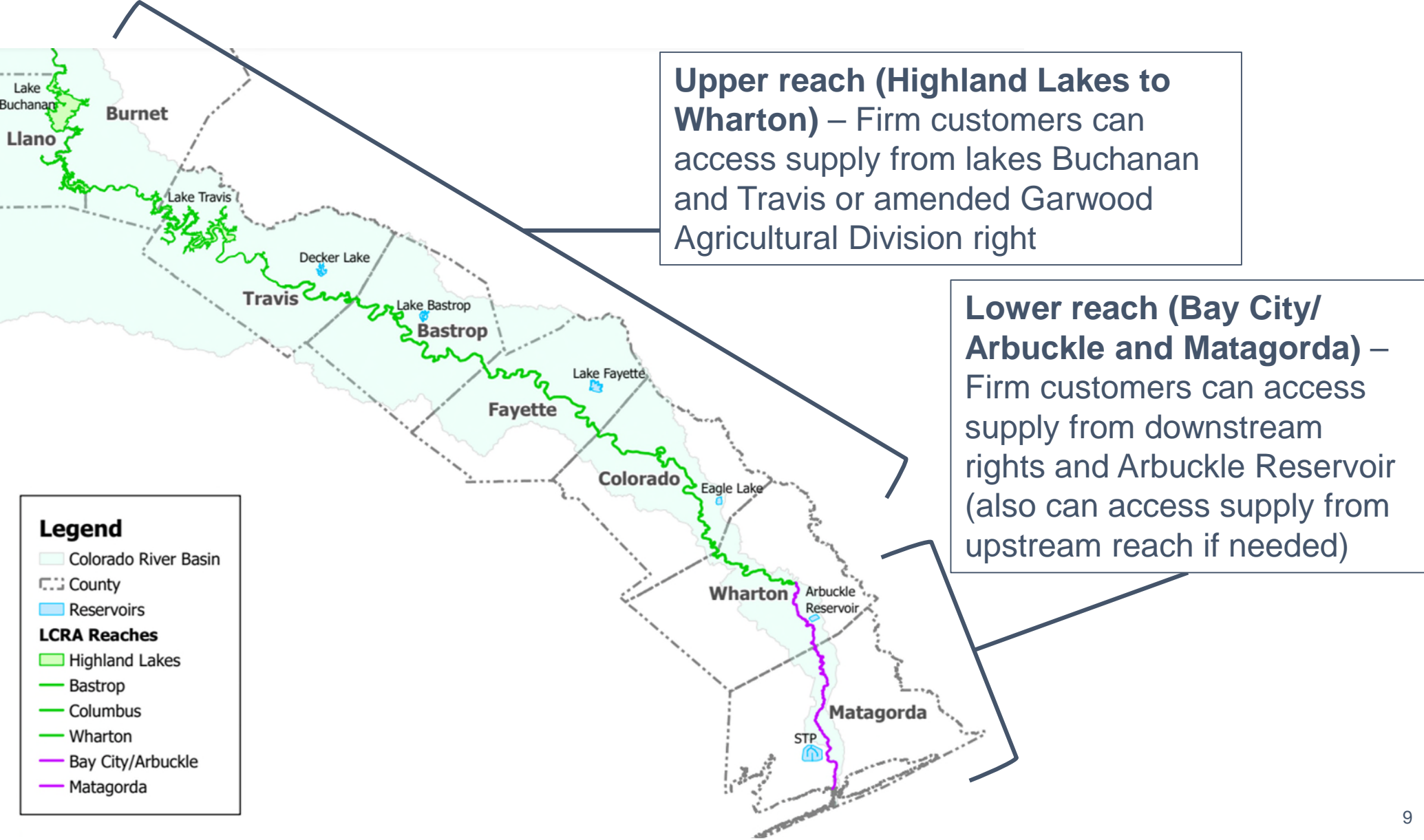
ROR: run of river

E-Flows: environmental flows

Total System Firm Supply and Demands and Commitments



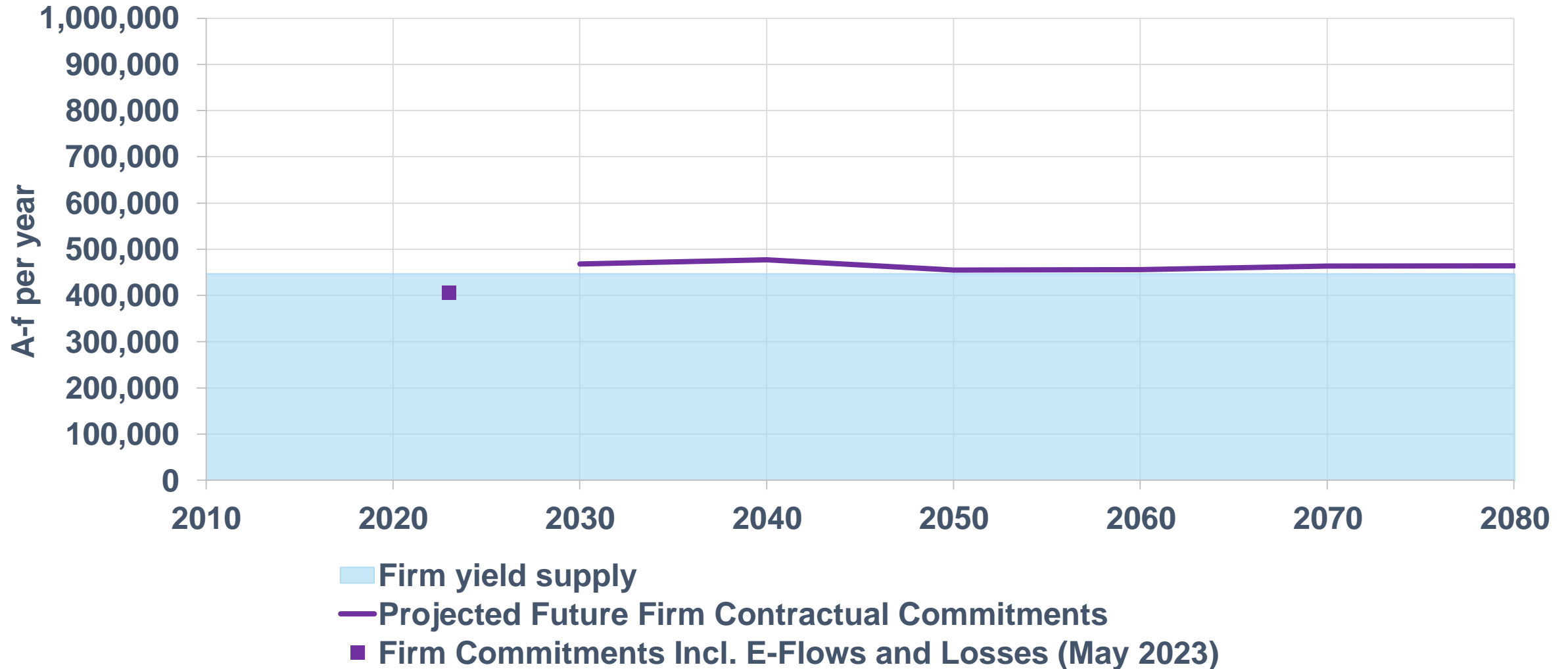
Accounting for Location



Firm Supply by Location

- **Upper reach: about 450,000 a-f per year**
 - Lakes Buchanan and Travis
 - Amended Garwood water right
- **Lower reach: about 140,000 a-f per year**
 - Run-of-river rights
 - Arbuckle Reservoir

Upper Reach: Firm Supply and Projected Future Firm Contractual Commitments



E-Flows: environmental flows

Planning for Uncertainty

- **Projected demands and commitments**
 - Population growth rates
 - New customers and industry
- **Firm supply**
 - Could have future droughts worse than we've experienced
 - Sedimentation rates could vary

**Prudent to have a cushion
to help deal with the unexpected**

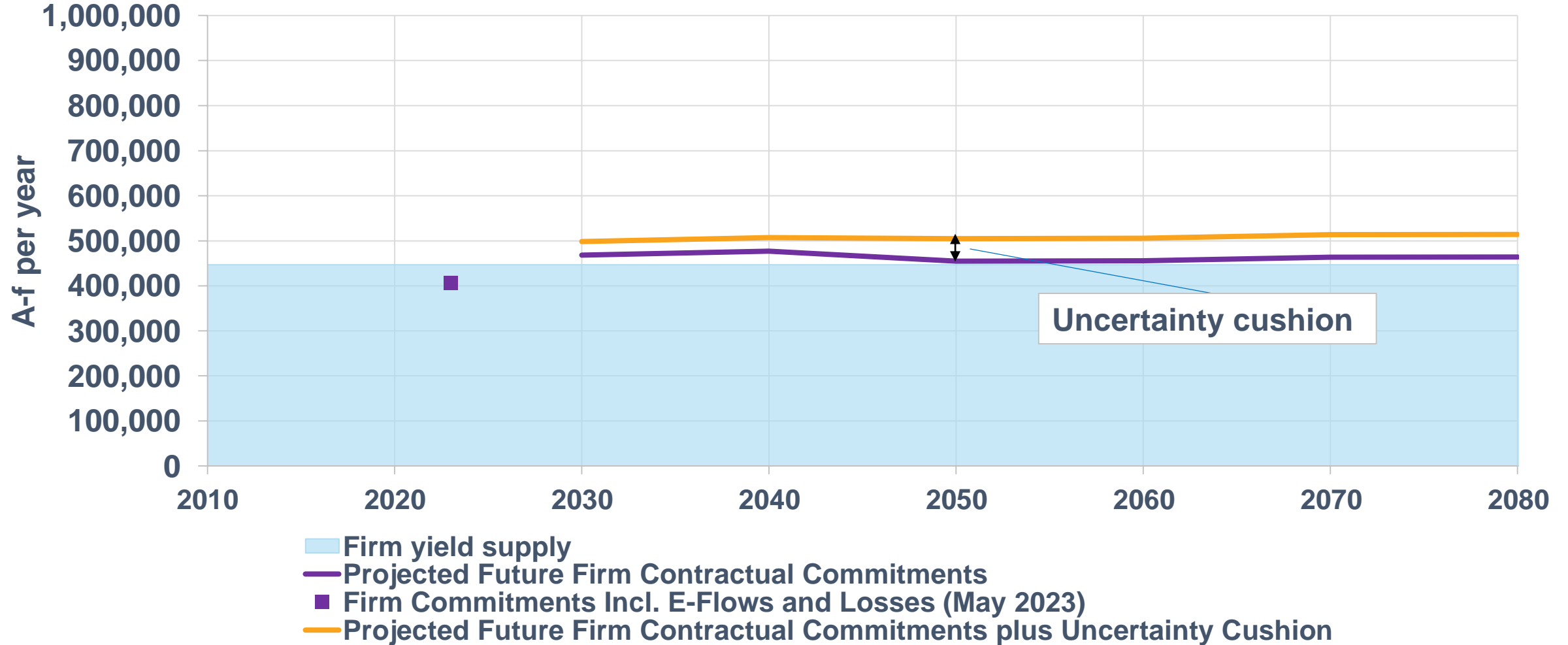
Need for New Water Supply in Upper Reach

	A-f per year					
	2030	2040	2050	2060	2070	2080
Projected future firm contractual commitments in upper reach	468,000	477,000	455,000	456,000	464,000	464,000
Uncertainty cushion	30,000	30,000	50,000	50,000	50,000	50,000
Total supply needed	498,000	507,000	505,000	506,000	514,000	514,000
Historic firm yield – upper reach ¹	450,000	450,000	450,000	450,000	450,000	450,000
New supply needed	48,000	57,000	55,000	56,000	64,000	64,000

¹Combined firm yield of lakes Travis and Buchanan plus 33,000 a-f per year of Garwood right. Does not include potential sedimentation.

Targeted new firm water supply for the upper reach of about 60,000 a-f per year by 2040

Upper Reach Firm Supply and Projected Future Firm Contractual Commitments Plus Uncertainty Cushion





**LCRA**
ENERGY • WATER • COMMUNITY SERVICES