

# Region C Water Planning Group

PUBLIC MEETING

FEBRUARY 24, 2025



# Roll Call

REGION C PLANNING GROUP MEETING  
FEBRUARY 24, 2025







# Approval of Minutes

REGION C PLANNING GROUP MEETING  
JANUARY 6, 2025





# Public Comment

REGION C PLANNING GROUP MEETING  
FEBRUARY 24, 2025





## PRIMARY ACTION ITEMS FOR CONSIDERATION



## **AGENDA ITEM IV.A.**

Announcement of Region C RWPG Chair vacancy; Call for nominations from the nominating committee to fill vacancy and vote to fill vacancy

Steve Mundt

Nominating Subcommittee





## **AGENDA ITEM V.B.**

Review and Discuss the *2026 Initially Prepared Region C Water Plan (IPP)*

Simone Kiel

Freese & Nichols, Inc.





# Introduction

1. Description of Region C
2. Population and Water Demand Projections
3. Analysis of Water Supply
4. Identification of Water Needed
5. Water Management Strategies (5 Sections)
6. Impacts of Region C Plan
7. Drought Response
8. Unique Stream Segments, Unique Reservoir Sites, and Legislative Recommendations
9. Implementation and Comparison to Previous Plan
10. Plan Approval Process and Public Participation

## 16 Appendices (A-P)

- Appendix G – WMS Evaluation
- Appendix H – Cost Estimates
- Appendix J – Updated Impacts Analysis of Marvin Nichols
- 2 placeholders
  - TWDB Socioeconomics Report
  - Response to IPP Comments



# Introduction

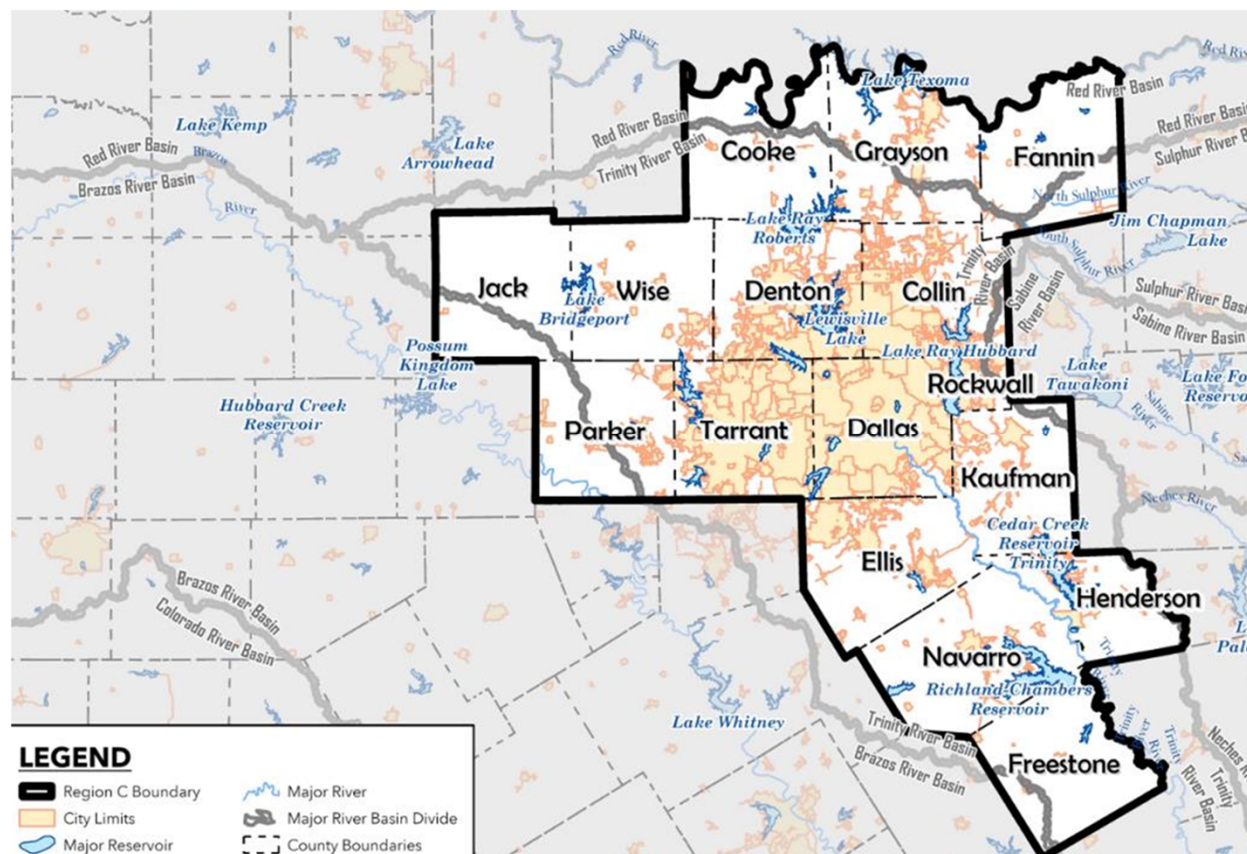
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# Chapter 1: Description of Region



## Region C at a Glance

16 Counties

2021 Population: 7.2 Million

26% of State's Population

30% of State's Economy

10% of State's Water Use

57 Cities over 20,000  
population

89% of Demand Met by  
Surface Water



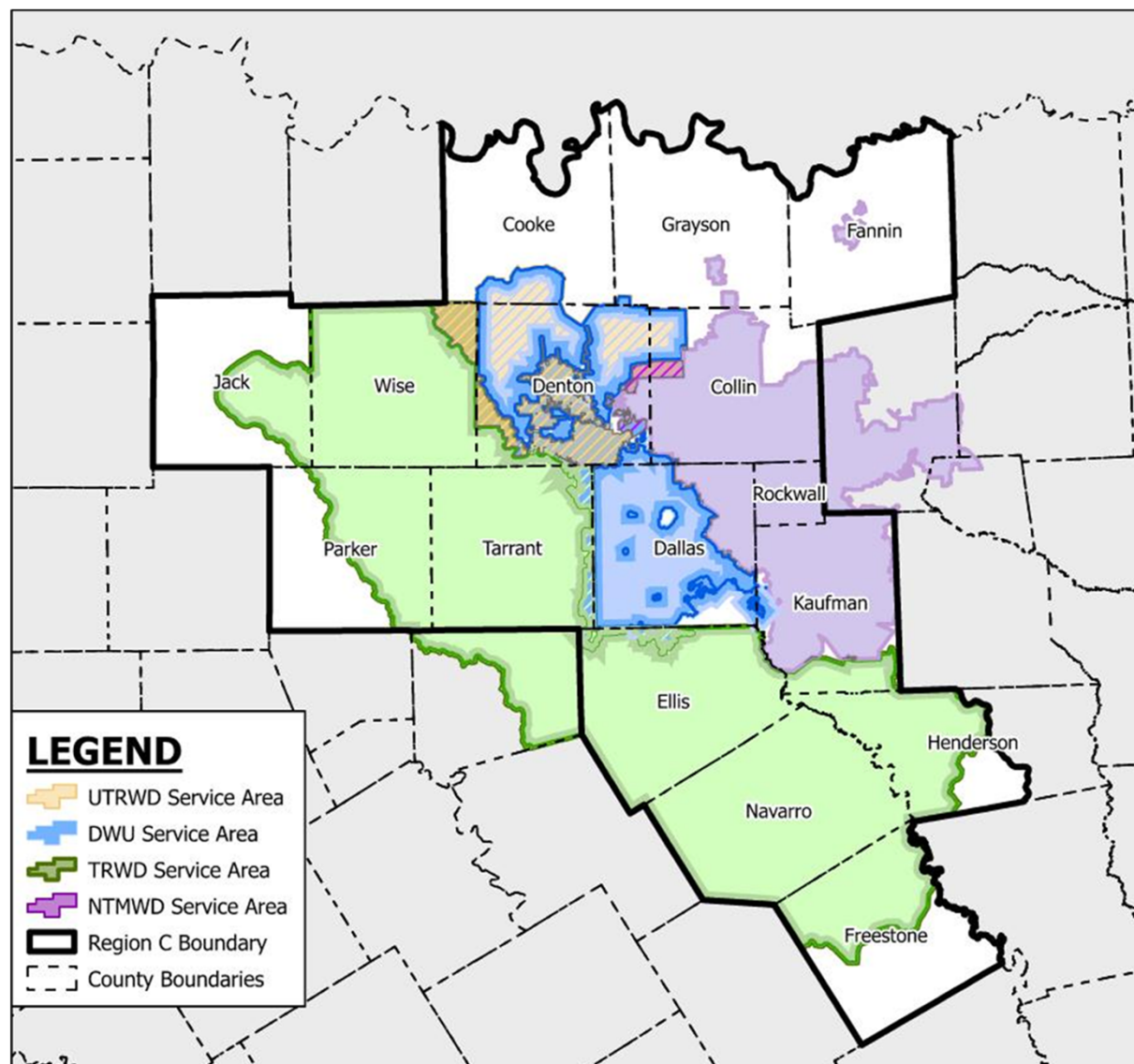
# Chapter 1: Major Water Providers

Four MWP's provide over 90% of Region C municipal demand:

- TRWD
- DWU
- NTMWD
- UTRWD

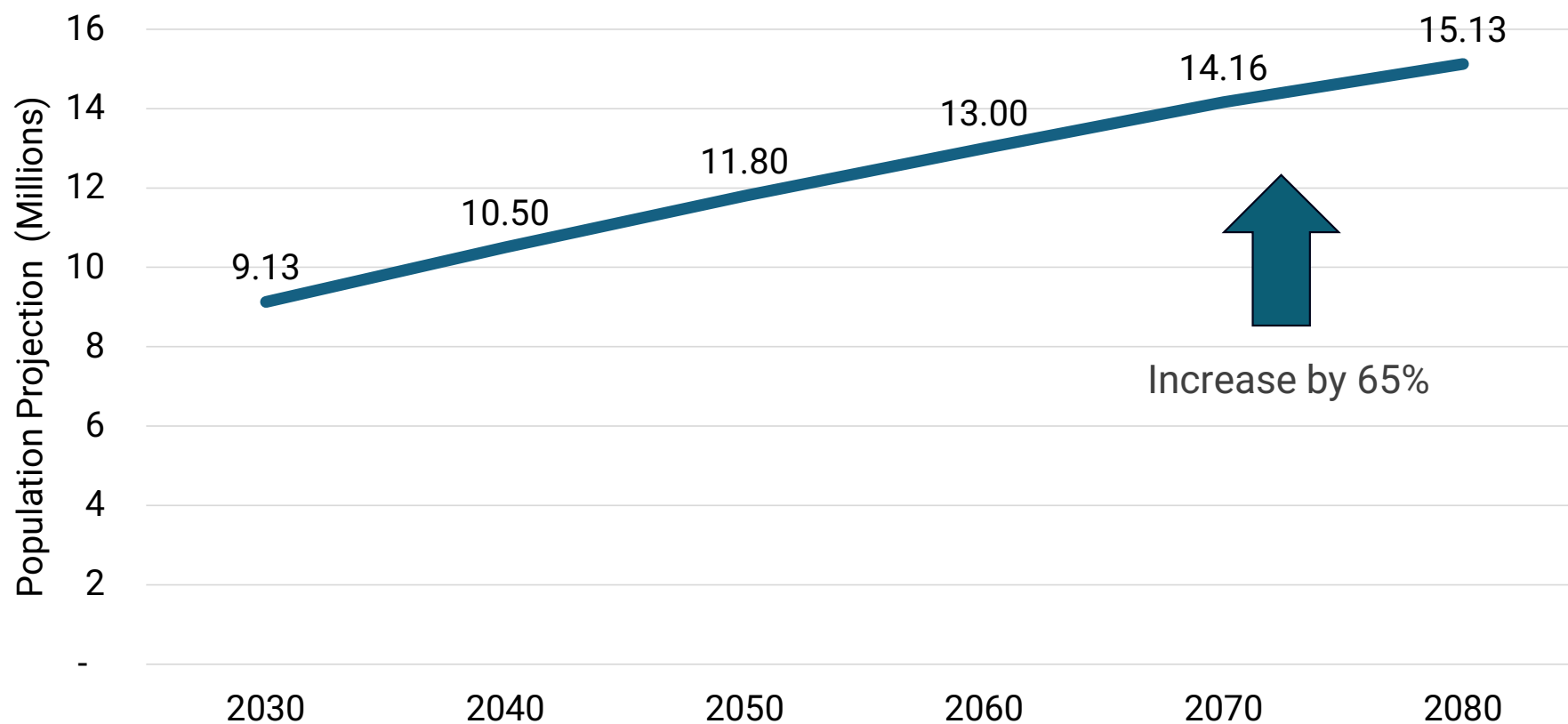
Two other MWP's receive water from TRWD:

- Fort Worth
- TRA



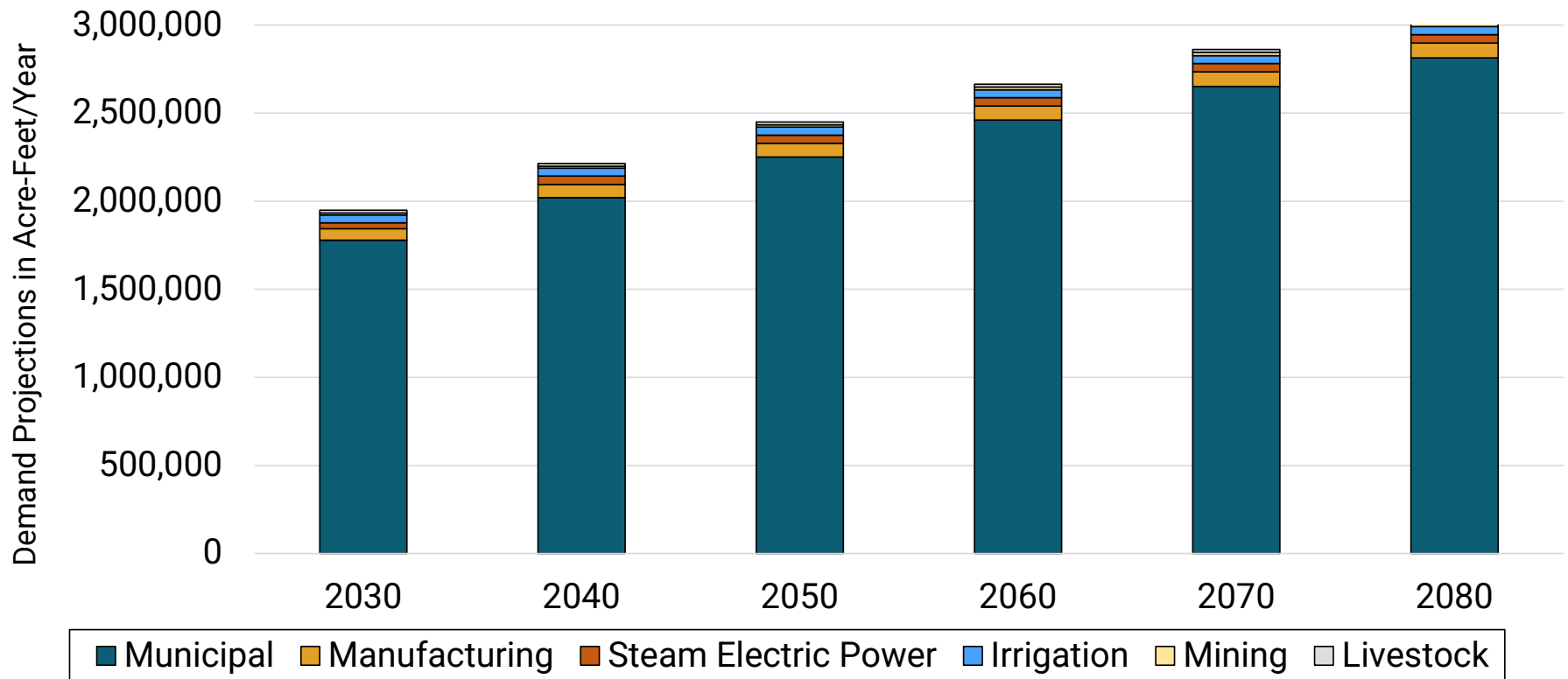


## Chapter 2: Population and Demand Projections



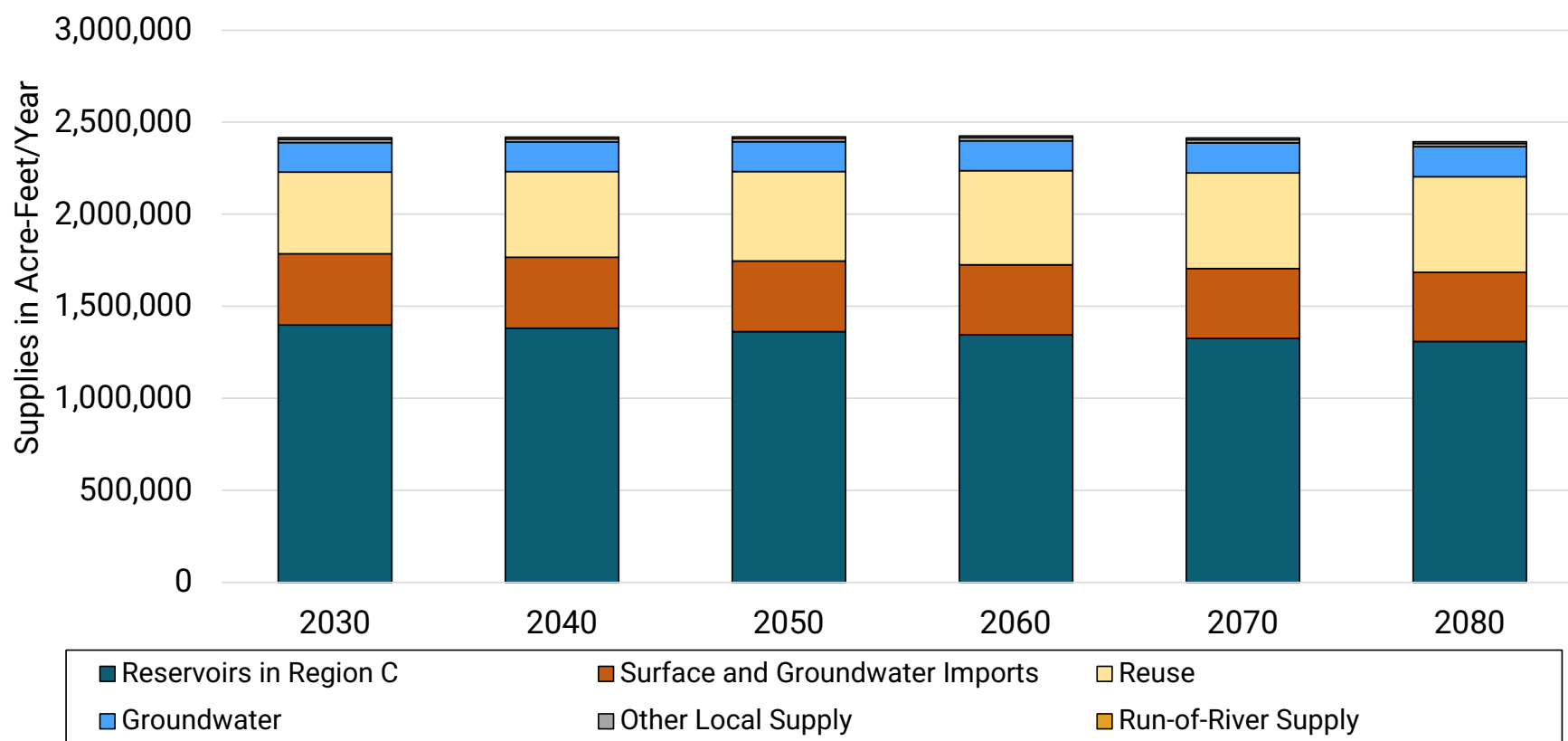


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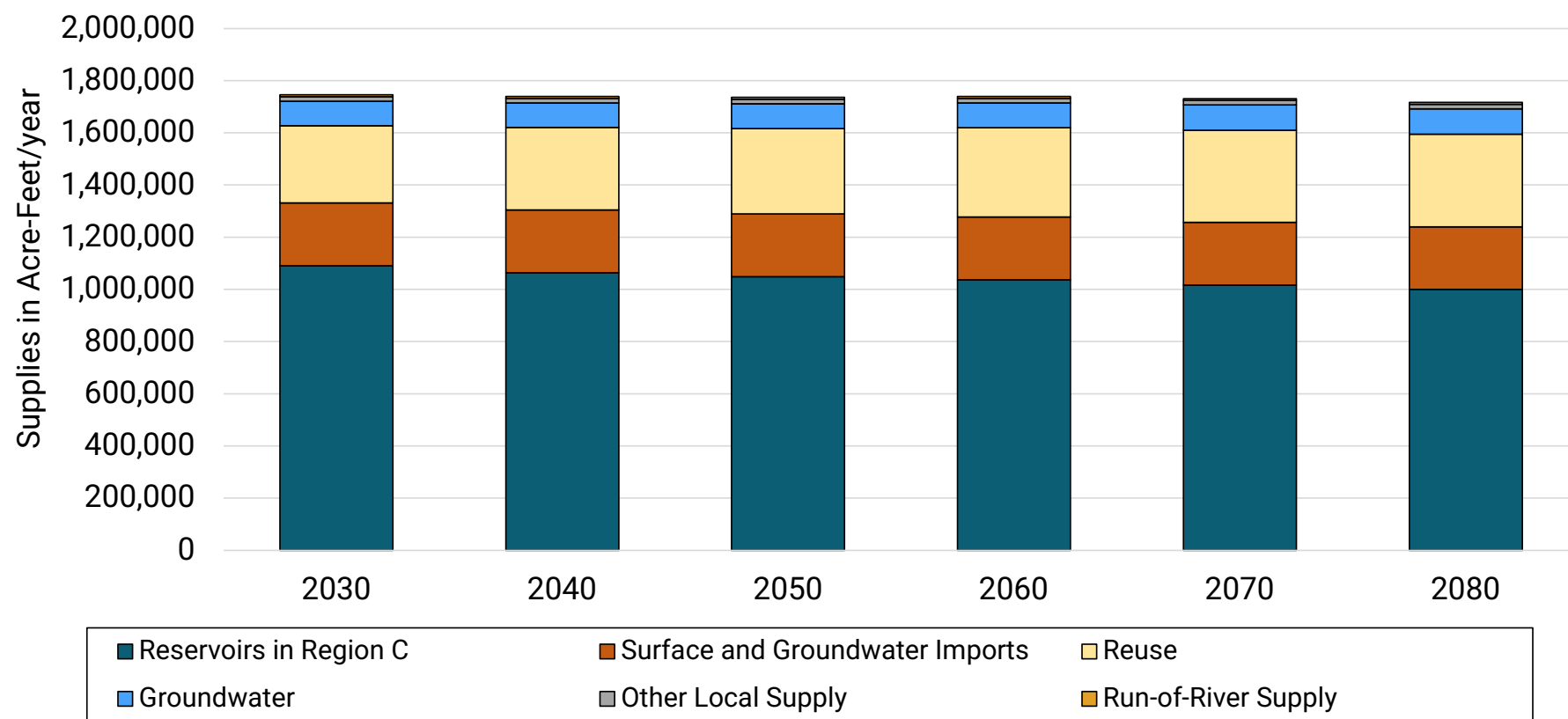




## Chapter 3: Analysis of Water Supply (Total Supplies)

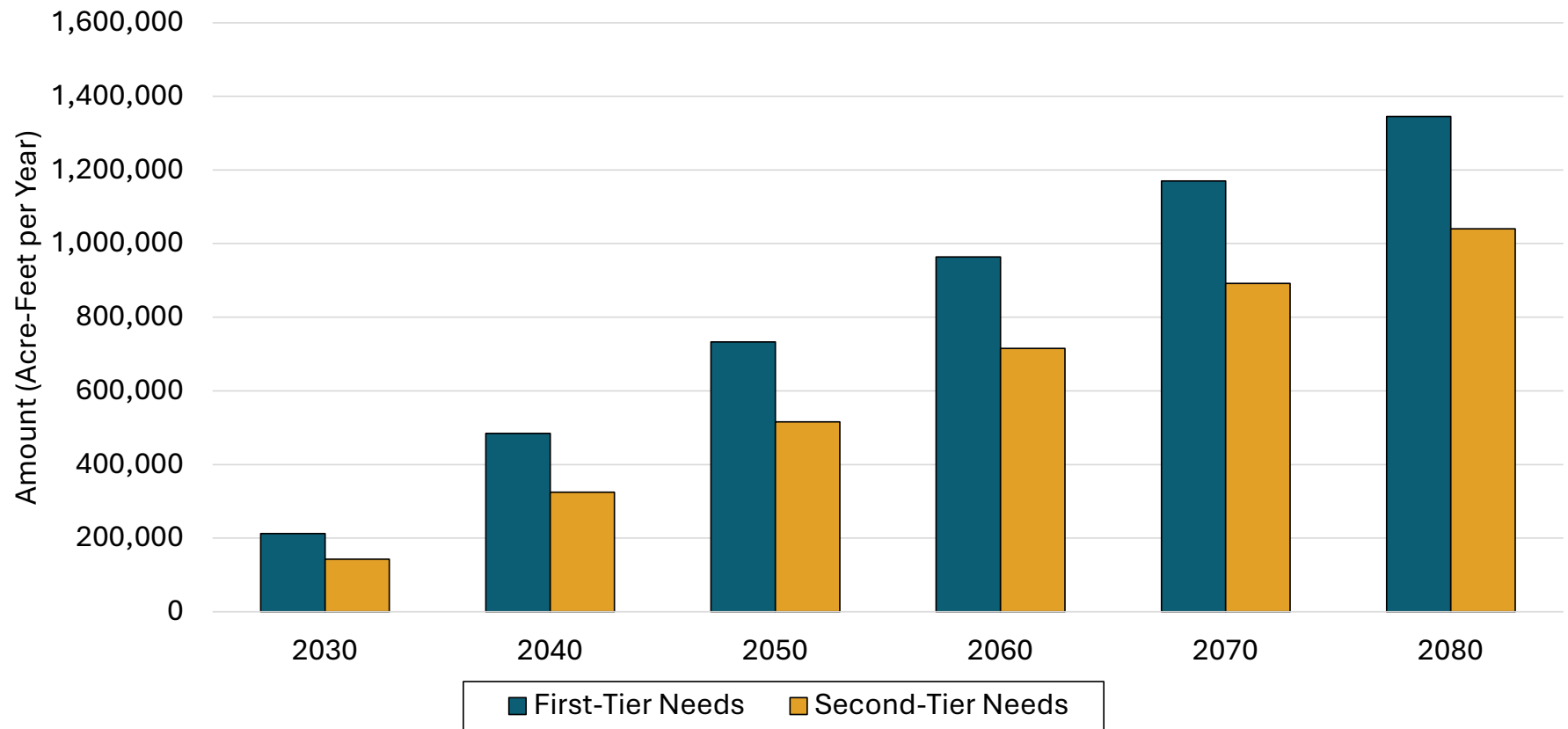


## Chapter 3: Analysis of Water Supply (Connected Supplies)





## Chapter 4: Needs



# Chapter 5: Water Management Strategies

- **Chapter 5A:** Methodology for Evaluation and Selection of Water Management Strategies
- **Chapter 5B:** Conservation and Reuse
- **Chapter 5C:** Major Water Management Strategies
- **Chapter 5D:** Major Water Providers
- **Chapter 5E:** Water Management Strategies by County
- **Chapter 5F:** Summary of Recommended Plan



# Chapter 5A: Process to Identify and Evaluate Water Management Strategies



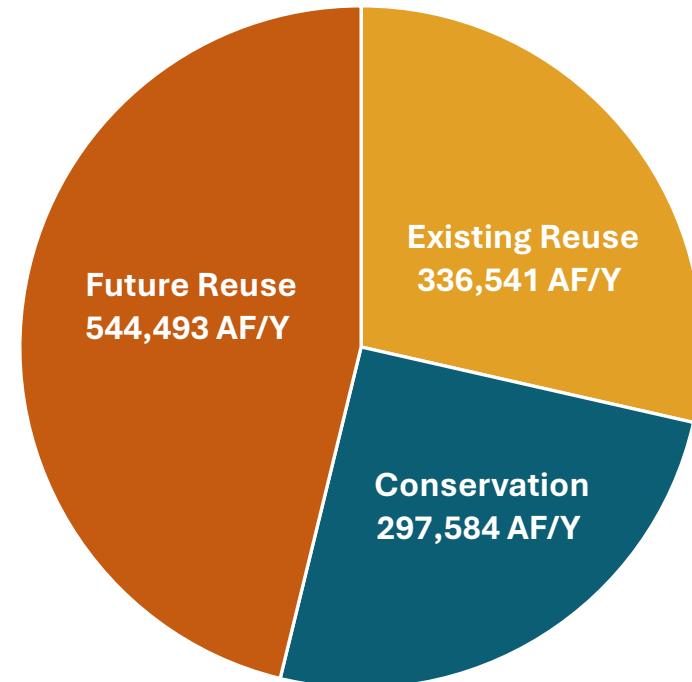
# Chapter 5B: Conservation and Reuse

Over 1.17 million AF/Y of current and future conservation and reuse in 2080

## Major Reuse Strategies

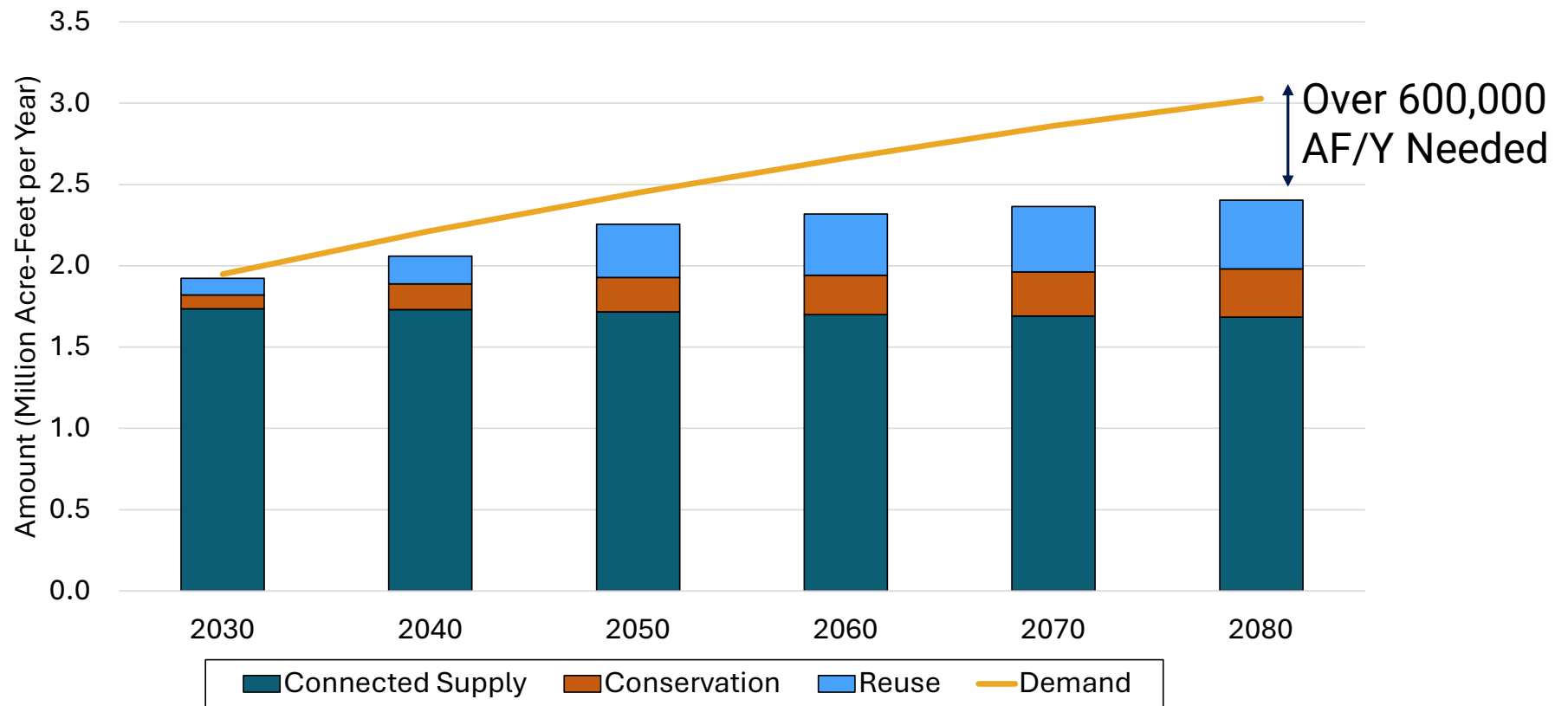
- Marty Leonard Wetlands
- Reuse from TRA Central RWS
- Reuse from Mary's Creek WRF
- Indirect Reuse Implementation
- Main Steam Balancing Reservoir
- Expanded Wetlands Reuse
- Lake Ralph Hall Indirect Reuse

## 2080 Conservation and Reuse





## Chapter 5B: Needs After Conservation and Reuse



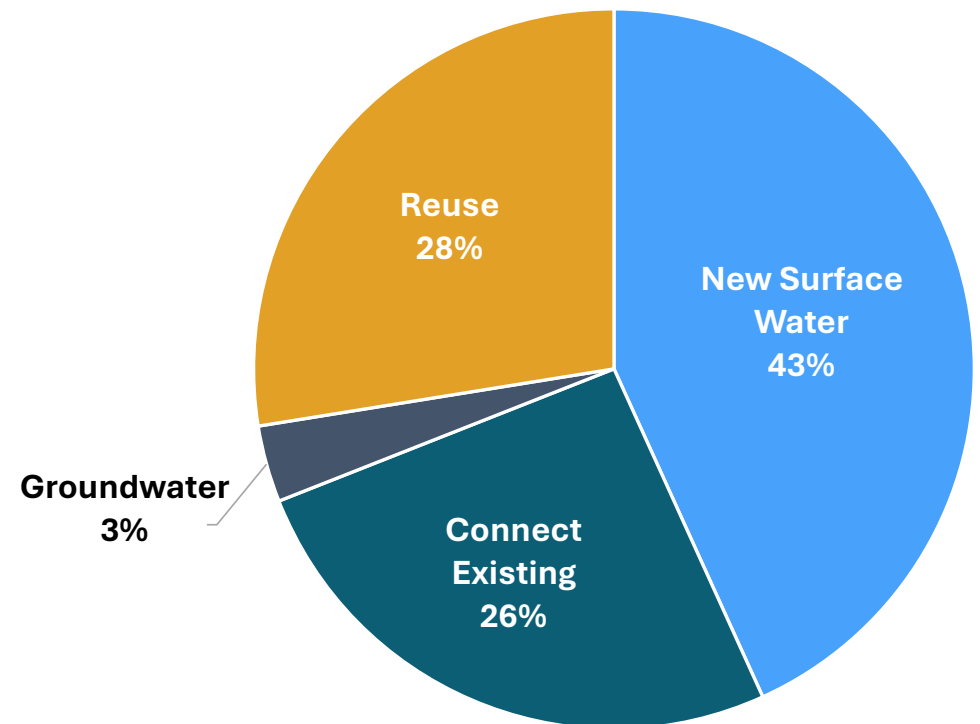
# Chapter 5C: Recommended Major Strategies

## Recommended Major Water Management Strategies

- 7 New Surface Water
- 7 Connection of Existing Supplies
- 2 New Groundwater
- 7 Reuse Strategies

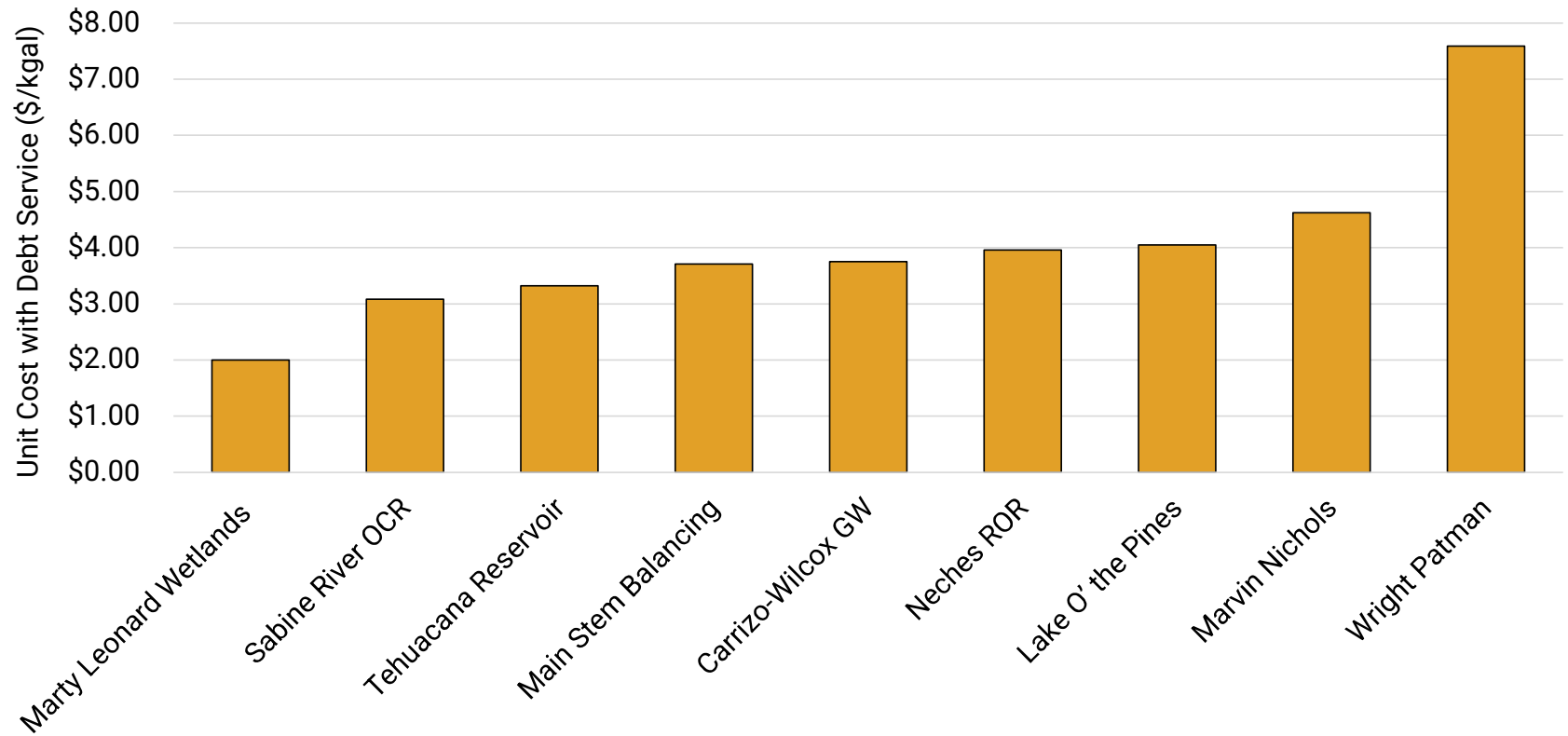
**Accounts for ~80% of total additional supply for the region**

2080 Major Recommended Strategies



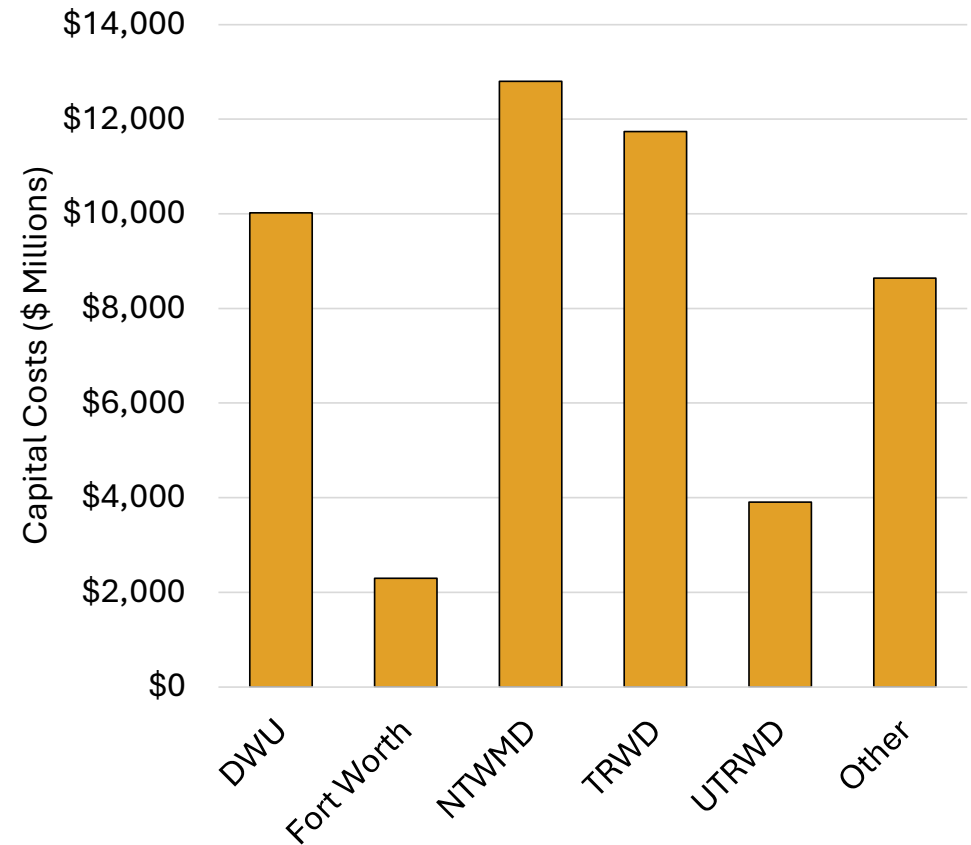


# Chapter 5C: Recommended Major Strategy Costs



## Chapter 5D: Recommended Strategy Costs

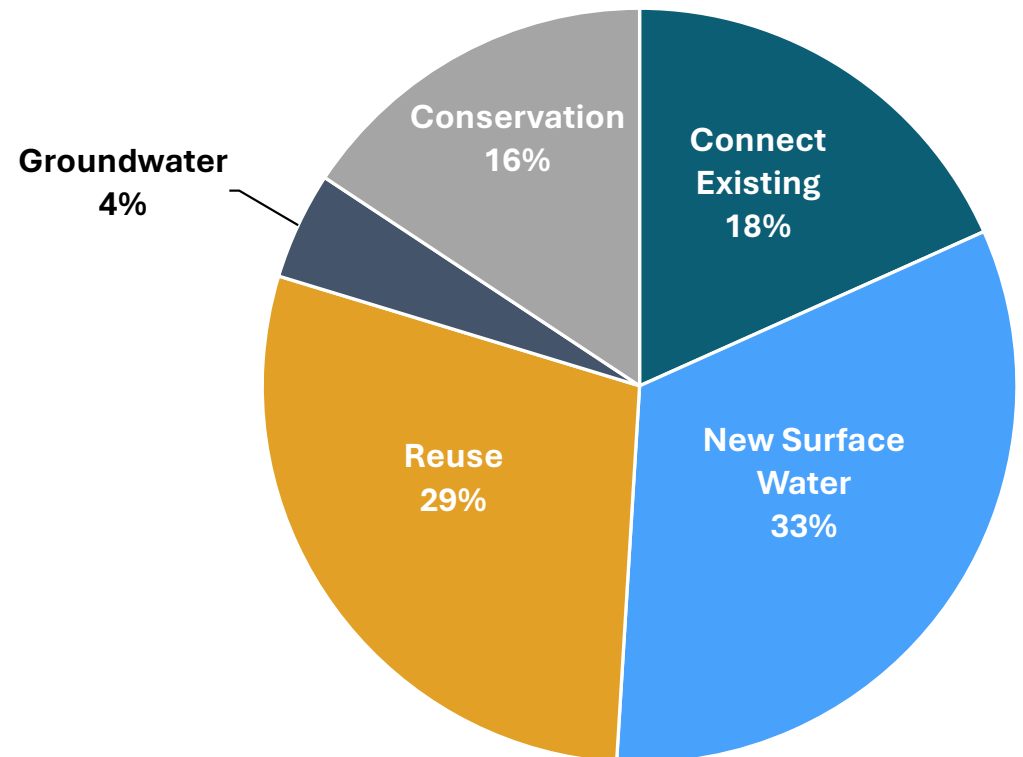
- Total Capital Cost: \$49 billion
- 83% of cost is for MWP
- Other
  - Regional Providers: \$2 billion
  - WUGs/WWPs: \$6.7 billion



# Chapter 5: Water Management Strategies

- Over 170 Recommended WMS
- 38 Alternative WMS
- Total Supply from WMS
  - 1.89 million AF/Y
  - 45% Conservation and Reuse

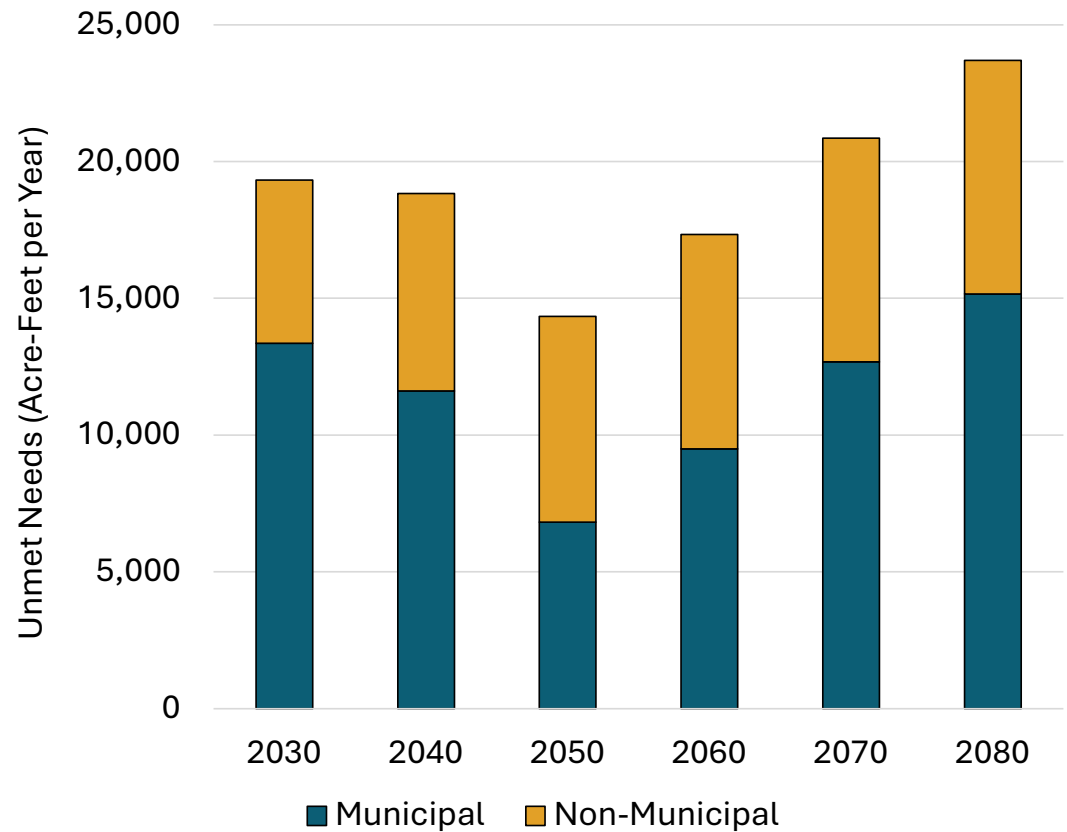
## 2080 All Recommended Strategies





## Chapter 5: Unmet Needs

- Three Municipal WUGs
  - Celina
  - County-Other, Parker
  - Irving
- Six Non-Municipal WUGs
  - Irrigation, Ellis
  - Irrigation, Fanning
  - Irrigation, Parker
  - Manufacturing Ellis
  - Manufacturing, Henderson
  - SEP, Freestone



## Chapter 6: Impacts of Strategies

- Impacts on
  - Water quality
  - Moving water from rural and agricultural areas to urban areas
  - Third party impacts
  - Invasive and harmful species
- Consistent with long-term protection of state resources
- Socio-economic impacts of not meeting water needs
  - TWDB Socioeconomics Impacts Analysis being conducted

# Chapter 6: Impacts on Water Quality

Strategy Type	Range of Anticipated Impacts on Key Water Quality Parameters
Existing Surface Water Sources	Low to Medium
Existing Groundwater Sources	Low to Medium Low
New Surface Water Sources	Low to Medium
New Groundwater Sources	Medium Low to Medium
Direct Reuse	Low/Positive
Indirect Reuse	Medium
Desalination	Medium to Low
Aquifer Storage and Recovery	Low
Conservation	Low
Other	Low

## Key Water Quality Parameters

### Surface Water

- Ammonia nitrogen
- Nitrate nitrogen
- Total phosphorus
- Chlorophyll-a
- Total dissolved solids (TDS)
- Chloride
- Sulfate

### Groundwater

- TDS
- Chloride
- Sulfate



# Chapter 6: Impacts on Moving Water to Urban Areas

## Types of WMSs:

- New connections to existing sources
- New reservoirs
- New groundwater

## Types of Impacts

- Transfer of water rights from agricultural use to other uses
- Removal of agriculture through inundation from new reservoirs
- Changes in stream flow immediately downstream of a new reservoir
- Increased water level fluctuations at existing lakes as more water is used

## Chapter 6: Other Impacts

- Instream Flows
  - Environmental flow needs built into yield analyses.
- Water Level Fluctuations
  - Low impact on habitat and agricultural activities.
- Third Party
  - Economic studies for Bois d’Arc Lake and Marvin Nichols Reservoir show significant net economic benefit to local region
- Invasive and Harmful Species
  - Zebra mussels, giant Salvinia, golden algae
  - Specific measures are included as part of strategies to prevent migration of harmful species

# Chapter 6: Consistency with Protection of State's Resources

- Water Resources
  - Respected existing surface water rights
    - TCEQ-approved WAMs
  - Honored MAG values for groundwater
- Agricultural Resources
  - Respected existing agricultural water use
- Natural Resources
  - Identified potential impacts to natural resources
  - Considered during evaluation of each strategy



# Chapter 7: Drought Response

- Drought of Record
  - 1950's for most
  - 2011-2015 for Red and Sulphur Basin
- Drought worse than drought of records
- Current preparation for drought
  - Regional coordination
  - 52 Drought Plans
- Emergency interconnections
- Drought triggers and responses
  - Surface water: Follow DCPs
  - Groundwater: U.S. Drought Monitor



## Chapter 8: Unique Stream/Reservoir & Legislative Recommendations

- No unique stream segments recommended
- 7 Reservoir sites recommended for unique designation
  - Lake Ralph Hall [under construction]
  - Marvin Nichols Reservoir
  - Tehuacana Reservoir
  - Lake Columbia (Region I)
  - Lake Fastrill (Region I)
  - George Parkhouse Reservoir II (North)
  - George Parkhouse Reservoir I (South)

Currently Legislatively  
Designated

**NEW**

## Chapter 8: Unique Stream/Reservoir & Legislative Recommendations

- 17 Policy and legislative recommendations
  - RWP Process (3)
  - TCEQ Policy and Water Rights (3)
  - State Funding and Water Supply Programs (5)
  - Water Reuse and Desalination (2)
  - State and Federal Program (4)





## Chapter 9: Comparison to 2021 Plan

### Updated WUG List

- 1 Removed WUG
- 10 New WUGs

### Minimal Changes in Projections by Decade

- Population +/-3.5%
- Demand +/- 1.3%

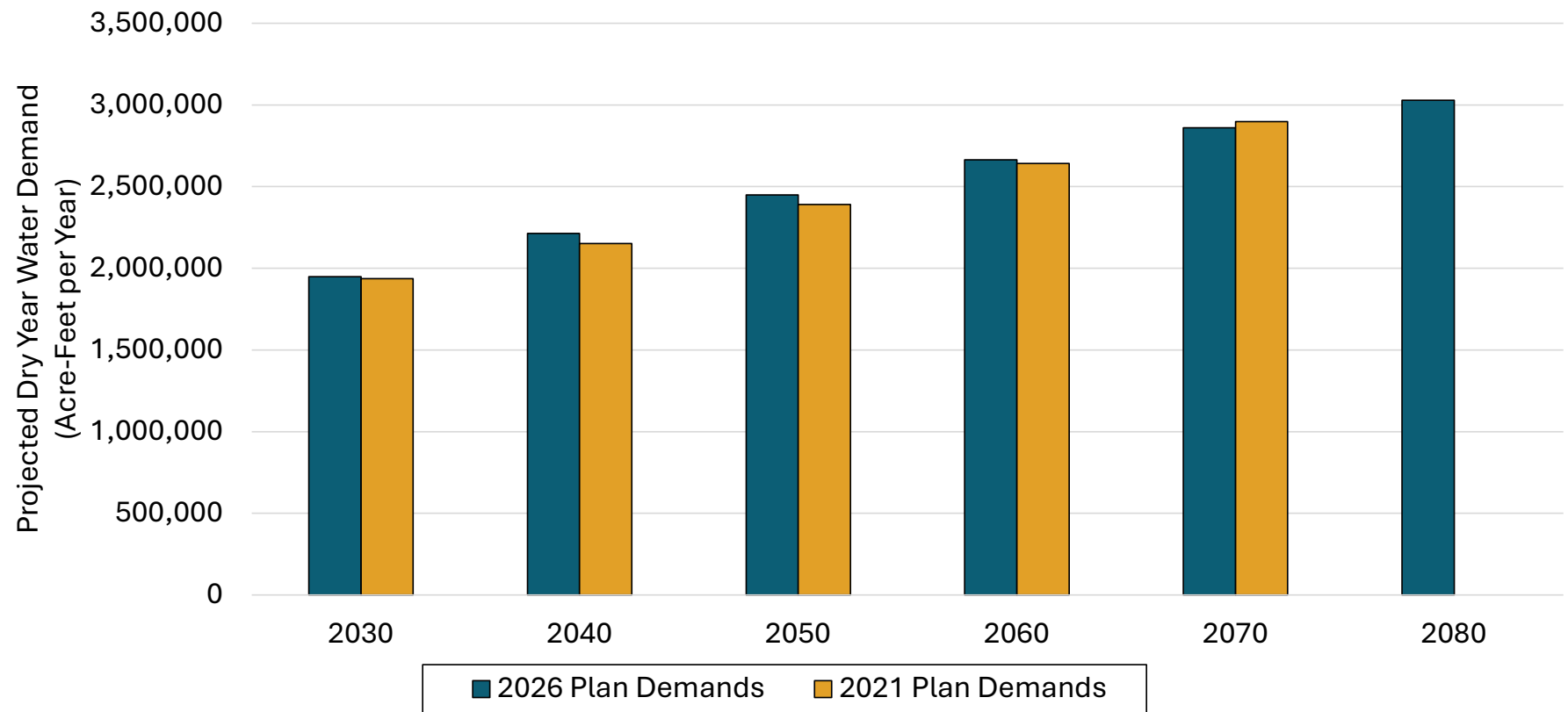
### Increased Supplies from Implemented WMS

- Supplies +6.5% (2030)
- Supplies +8.9% (2070)

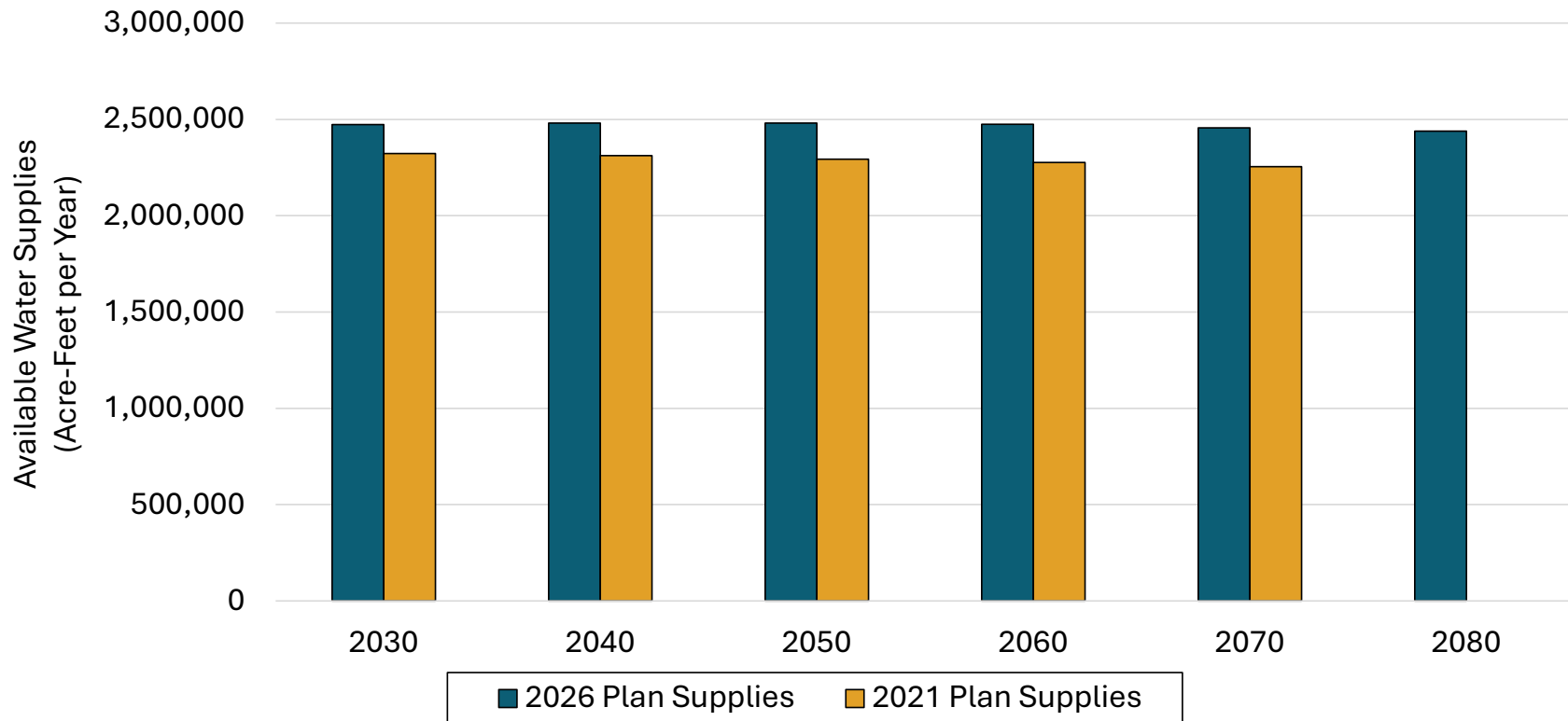
### Strategies implemented since the 2021 Region C Plan:

- New major reservoirs (2)
- Indirect reuse projects (3)
- Direct reuse projects (1)
- New or expanded connections (7)
- New groundwater projects (>20)
- Several water providers have implemented treatment and infrastructure improvements

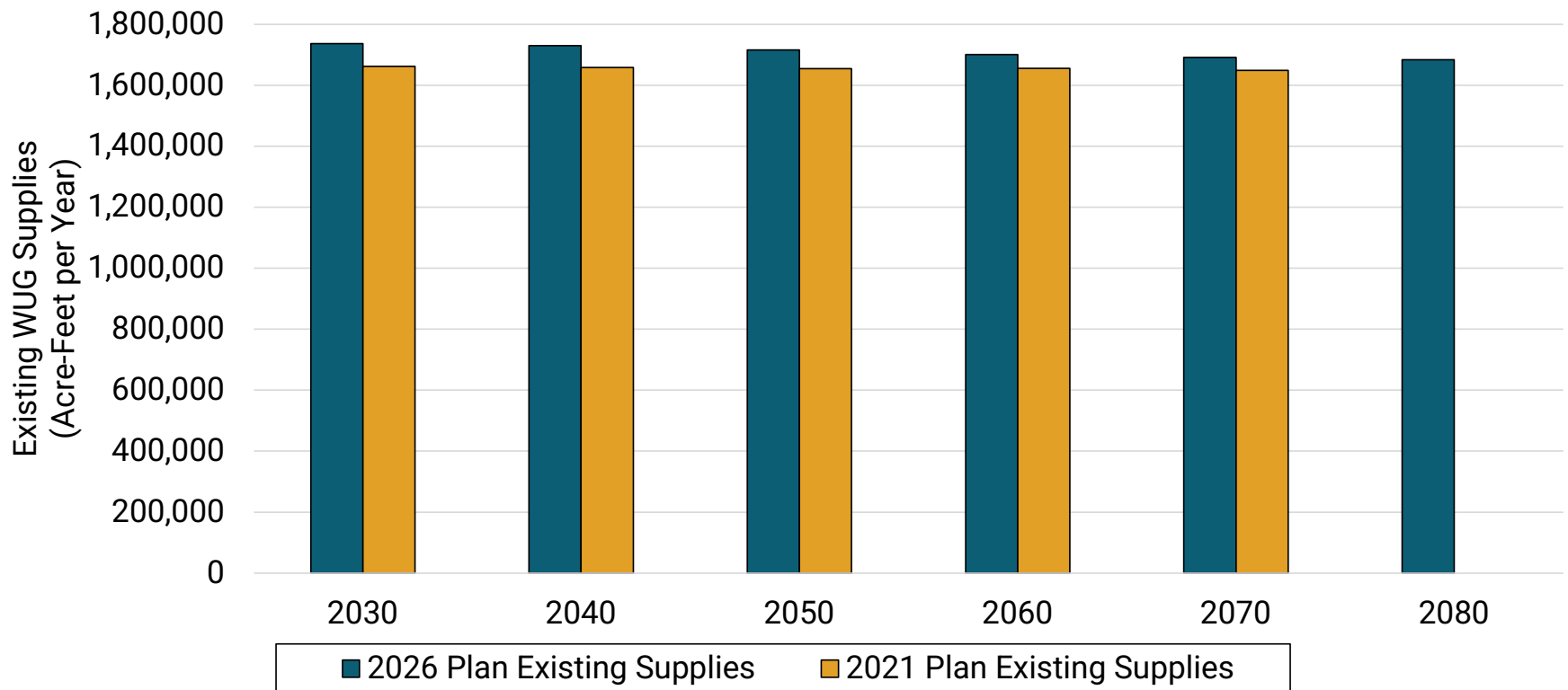
## Chapter 9: Comparison to 2021 Plan - Demands



## Chapter 9: Comparison to 2021 Plan - Total Supplies

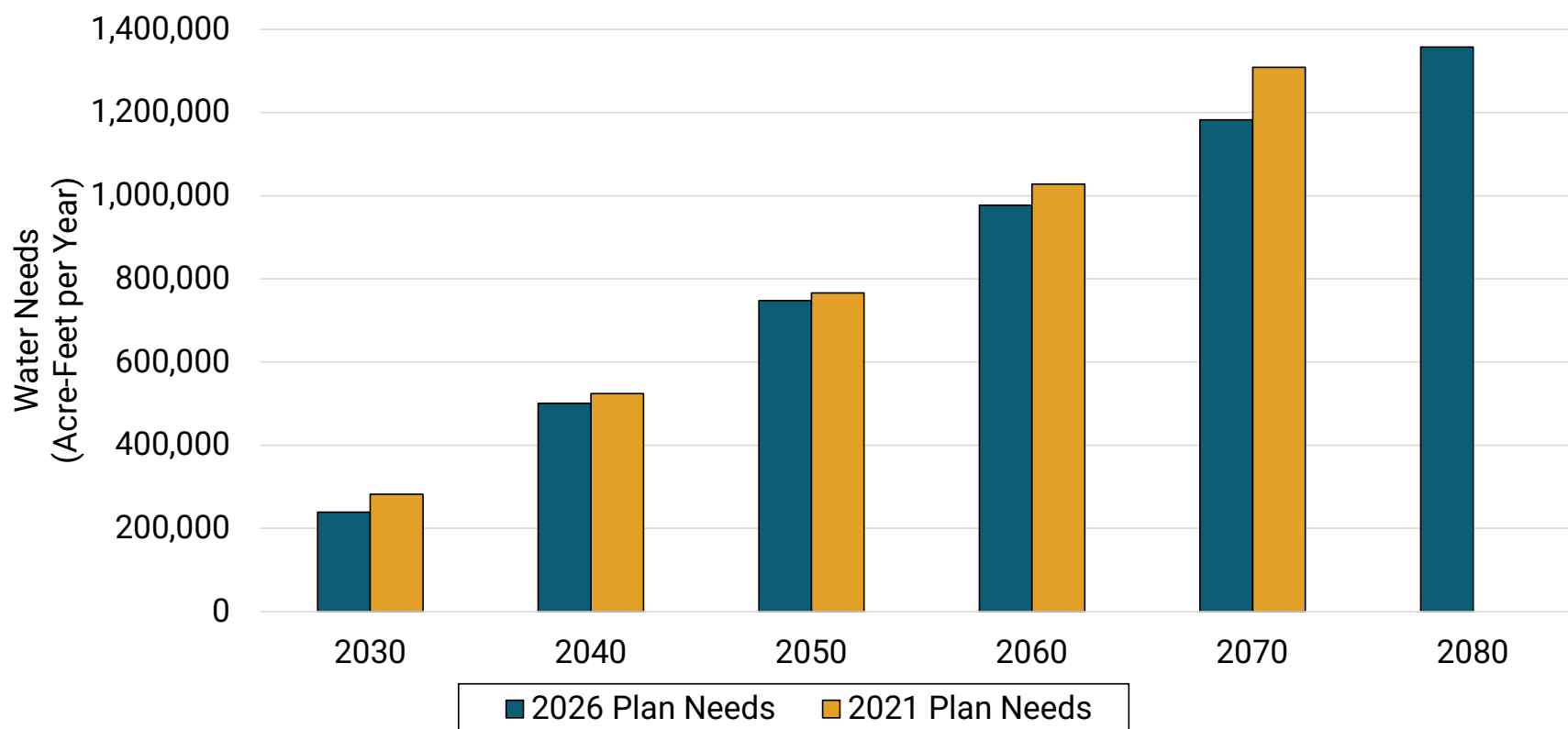


## Chapter 9: Comparison to 2021 Plan - Connected Supplies



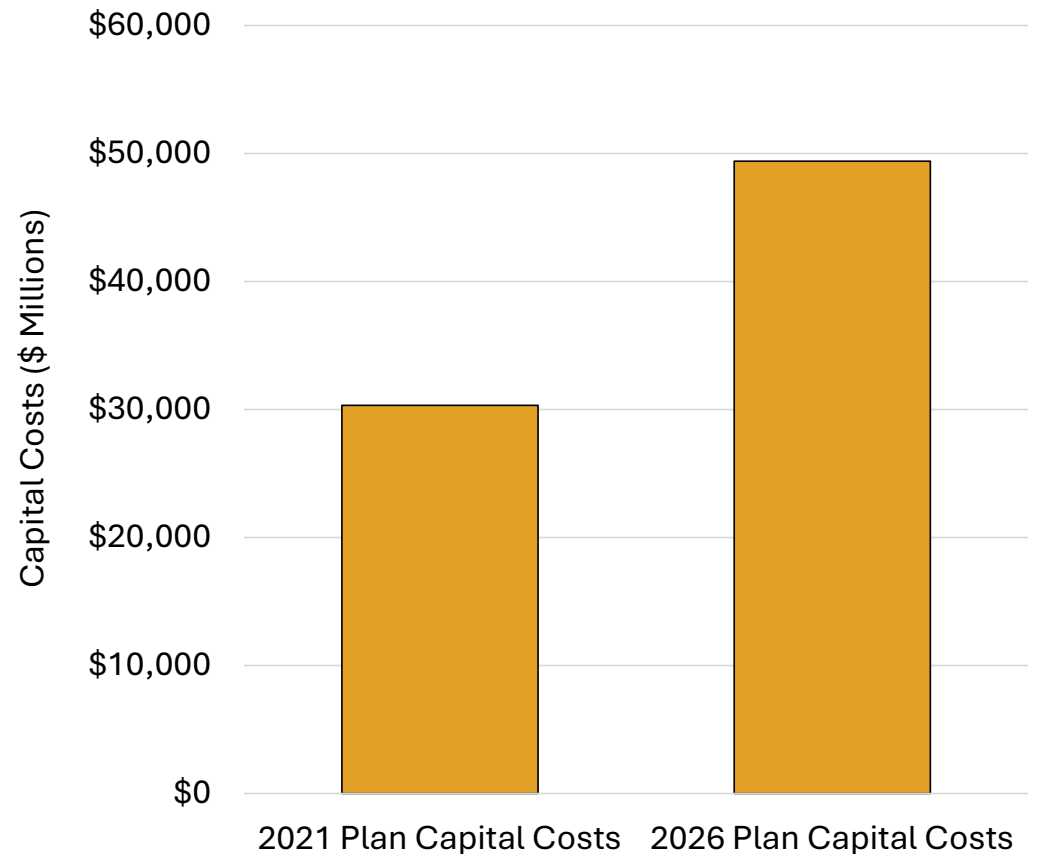


## Chapter 9: Comparison to 2021 Plan - Needs



## Chapter 9: Comparison to 2021 Plan – Capital Costs

- Nearly \$20 billion increase
  - 2026 Plan is in September 2023 dollars
  - 2021 Plan is in September 2018 dollars
- Increases due to increased material costs, inflation, and changes to projects



# Chapter 10: Public Participation and Plan Adoption

- Region C Planning Group
  - 23 Members
  - 12 Interests
- 10 RCWPG Meetings (to date)
- Media
  - Television interviews
  - Newspaper and magazine articles
  - Presentations to local groups and organizations

## Public Participation Elements

- Outreach to the Public
  - RWPG Meetings
  - [www.regioncwater.org](http://www.regioncwater.org)
  - Media/ Press releases
- Outreach to Water Suppliers
  - Surveys/Emails
  - Rural Outreach
  - Meetings/Teleconferences
  - Review of Published Documents
- Outreach to Adjoining Regions
  - Region C/D Coordination
  - Regional Liaisons
- Adoption Process
  - Public Hearing



## **AGENDA ITEM V.C.**

Accept public comments on the IPP

Simone Kiel

Freese & Nichols, Inc.





## **AGENDA ITEM V.D.**

Consider approval of the IPP, authorize technical consultant to make non-substantial changes prior to TWDB submittal, and authorize TRA and Technical Consultant to submit the IPP to the TWDB

Simone Kiel

Freese & Nichols, Inc.





## **AGENDA ITEM V.E.**

Authorize TRA to post Public Notice and  
hold a Public Hearing for the IPP

Simone Kiel

Freese & Nichols, Inc.





**OTHER ITEMS**  
(MAY RESULT IN ACTIONS)



## **AGENDA ITEM V.A.**

Schedule Overview

Simone Kiel

Freese & Nichols, Inc.





# Working Timeline – 2026 RWP Cycle

SIXTH CYCLE OF REGIONAL WATER PLANNING



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SIXTH CYCLE OF REGIONAL WATER PLANNING

## Next Steps

- IPP submittal to TWDB
- Hold Public Hearing



## **AGENDA ITEM V.B.**

Set date and time for the Public Hearing

Simone Kiel

Freese & Nichols, Inc.





## **AGENDA ITEM V.C.**

Future Business

Simone Kiel

Freese & Nichols, Inc.





## OTHER DISCUSSION





## **OTHER DISCUSSION**

- A. Updates from the Chair**
- B. Report from Regional Liaisons**
- C. Report from the Interregional  
Planning Council**
- D. Report from Texas Water  
Development Board**



## **OTHER DISCUSSION**

- E. Report from Texas Department of Agriculture**
- F. Report from Texas Parks and Wildlife Department**
- G. Report from Texas State Soil & Water Conservation Board**
- H. Other Reports**



# Adjournment

Dan Buhman

Region C Chair







# THANK YOU

Materials are available at [www.regioncwater.org](http://www.regioncwater.org)