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Water Supply Workshop: Beginning the Conversation

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Ventura Water General Manager

City Council Presentation
March 4, 2013

Agenda

- **Draft Water Resources Report**
- **Water Supply**
- **Water Demand Factors**
- **Water Supply Opportunities**
- **Discussion**

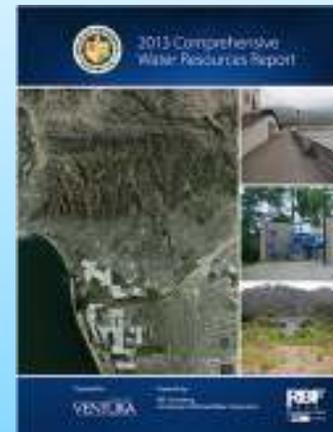
Draft Water Resources Report

What does it say

- Current & projected supply
- Supply constraints
- Demand factors are too conservative
- Potential supply opportunities

What it doesn't say

- The tap is dry
- Realistically define future demand



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Water Supply

Our Changing Water Supply

Acre Feet

30,000

25,000

20,000

15,000

10,000

5,000

0

■ **General Plan
Anticipated
Supply**

■ **Projected Water
Supply High
Range**

■ **Projected Water
Supply Low
Range**

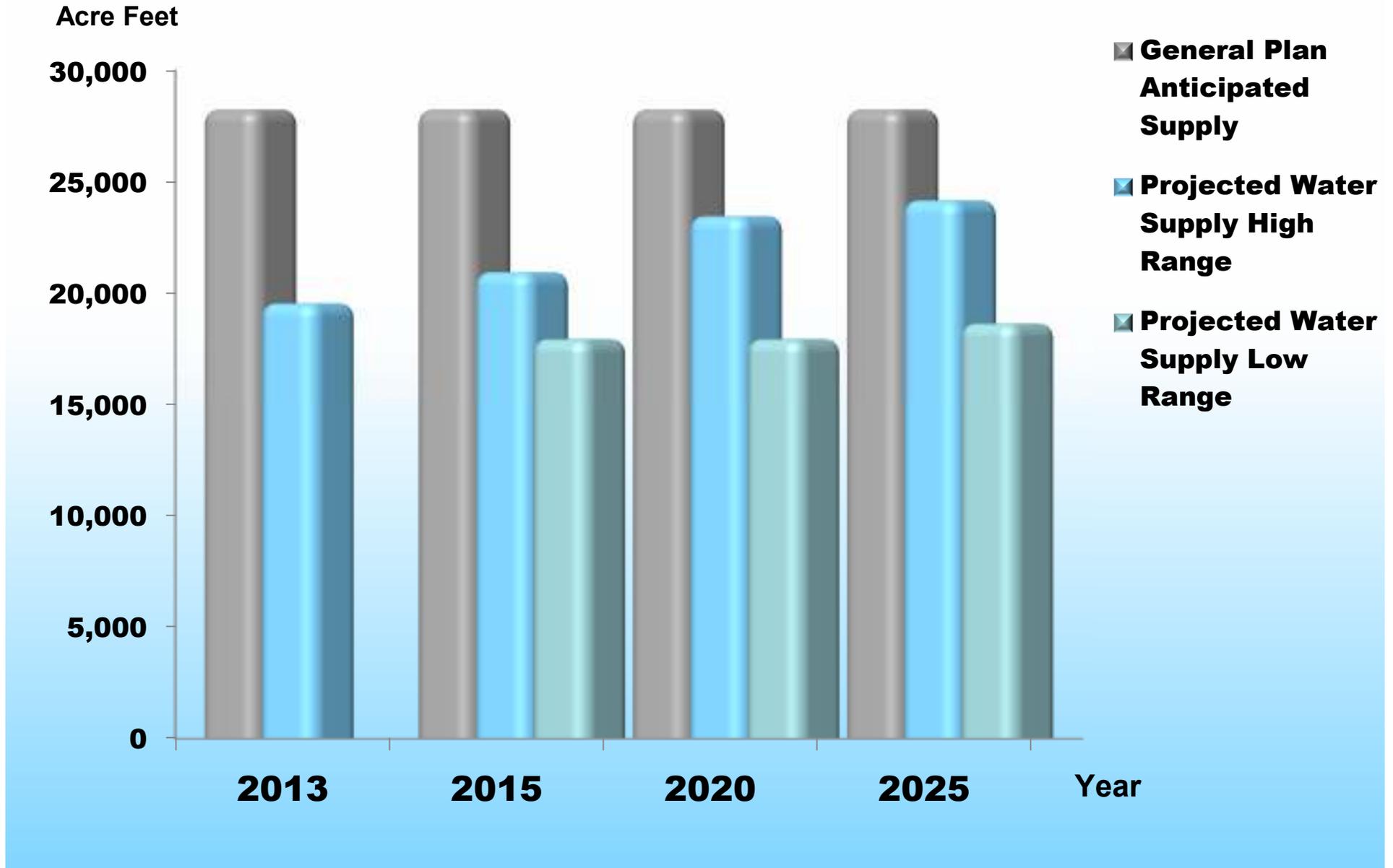
2013

2015

2020

2025

Year

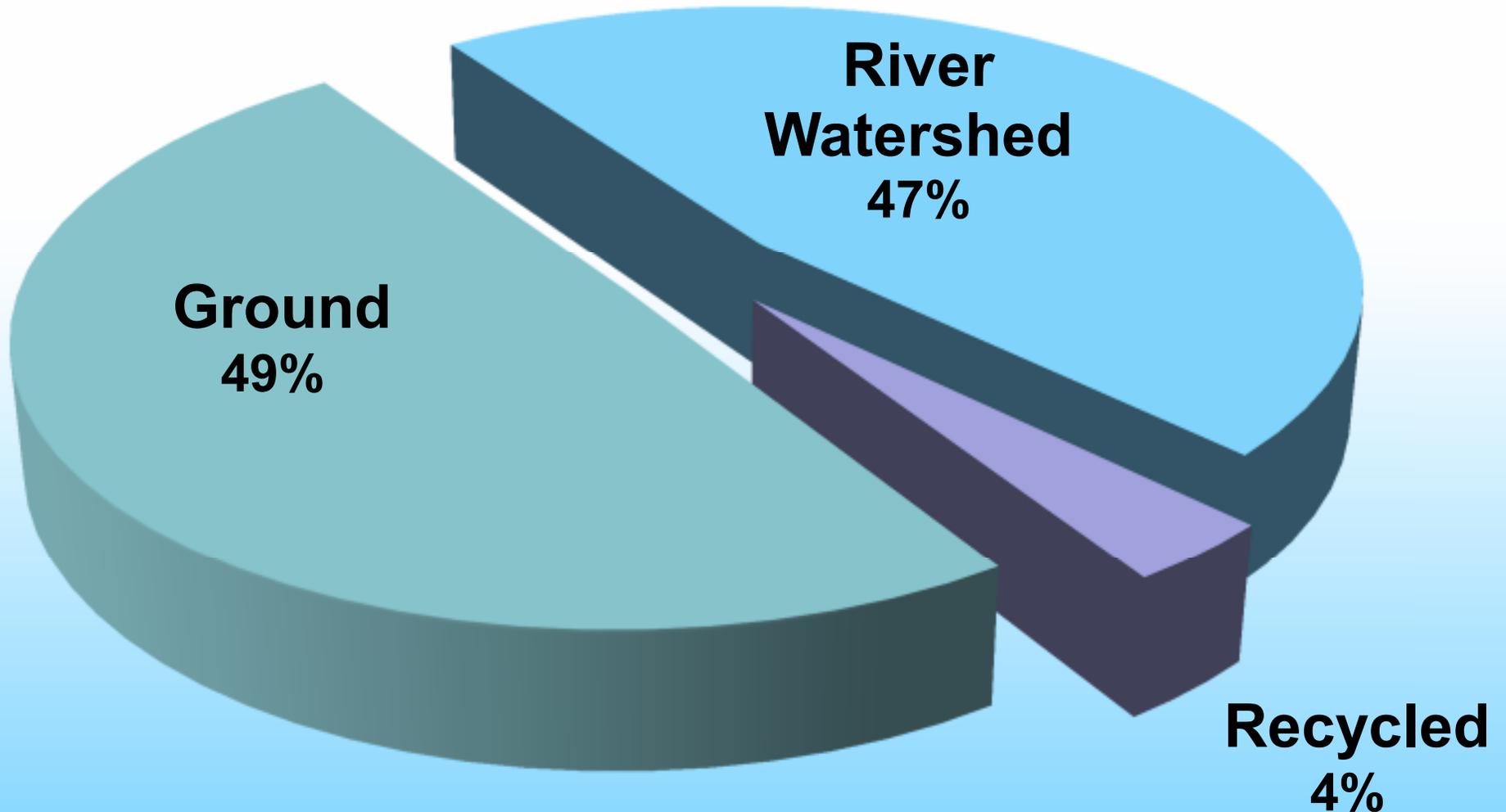


Local Sources of Water



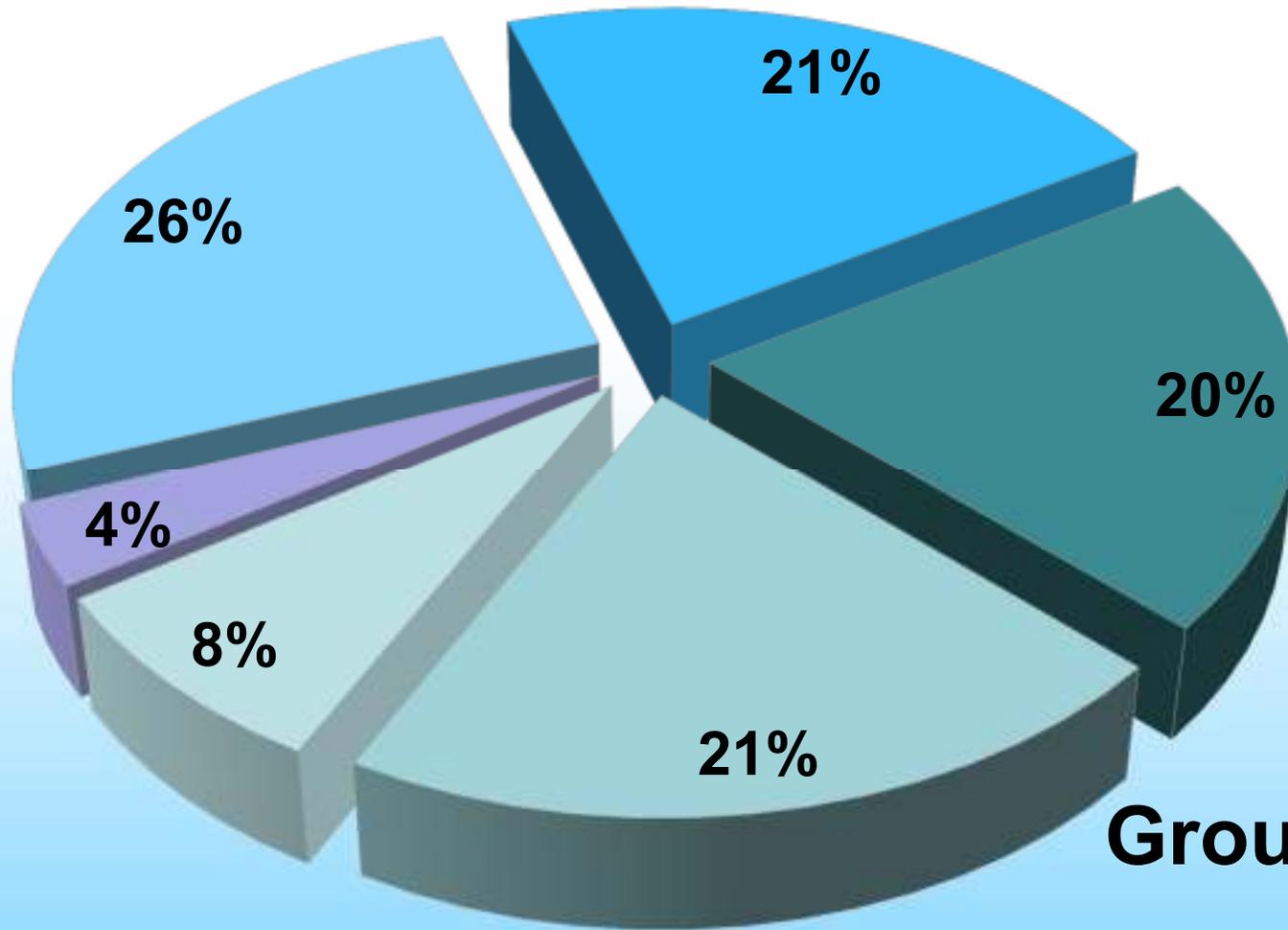
- **Casitas Municipal Water District**
- **Ventura River**
- **Santa Paula Basin**
- **Mound Basin**
- **Oxnard Plain Basin**
- **Recycled Water**

2013 Water Sources



2013 Water Supply

River Watershed



- Casitas
- River
- Mound
- Oxnard Plain
- Santa Paula
- Recycled

Groundwater



CITY OF VENTURA



Supply Sources

Legend

- Casitas Turnout
- Well
- City of Ventura Treatment Plant or Conditioning Facility
- Groundwater Basins
- Regional Water District Boundaries
- Ventura City Limit



Source: Eagle Aerial, 2010



Exhibit 4-1

Water Supply

- **Today**
- **Tomorrow**
- **Vulnerabilities**



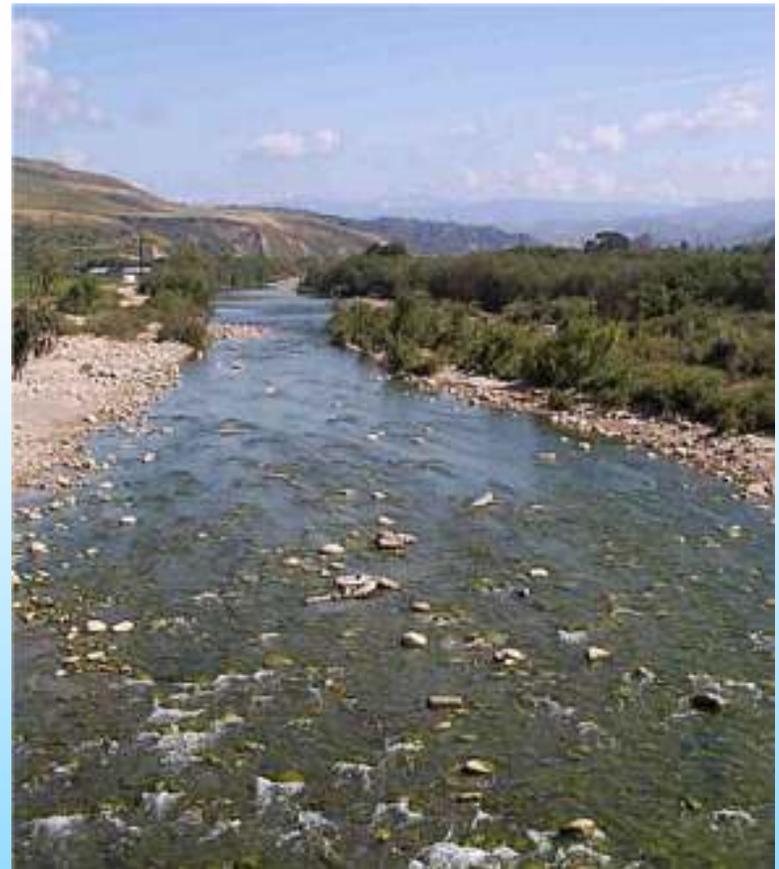
Casitas Municipal Water District



- **Stormwater-fed Lake**
- **Serve within boundaries**
- **5,000 AFY**
- **Allocations**

Ventura River

- **3 wells and subsurface intake operational**
- **2005 storm damage**
- **4,200 to 6,700 AFY range**



Groundwater – Santa Paula Basin

- One well operational
- Saticoy Well #3 under construction
- Water quality
- 1,600 AFY



Groundwater – Mound Basin

- **Two wells operational**
- **Water quality**
- **New well planned**
- **4,000 AFY**



Groundwater – Oxnard Plain Basin

- **Two wells operational**
- **Water quality**
- **New well planned**
- **4,100 AFY**



Recycled

- **700 AFY**
- **Tertiary treated water**
- **Water Reclamation Facility 5-mile radius**



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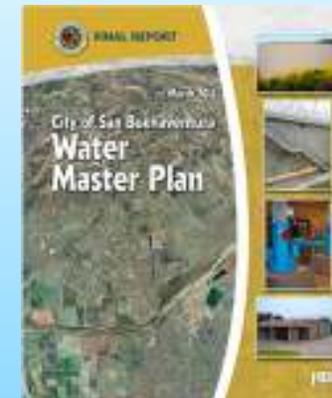
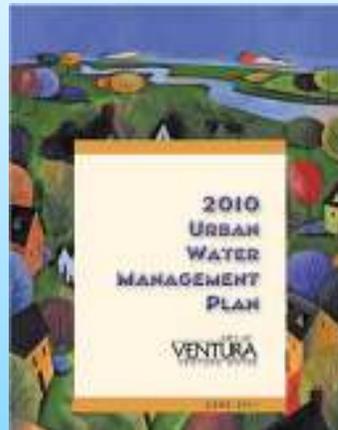
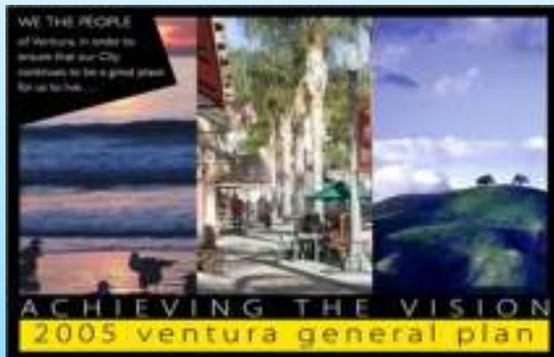
Water Demand

Demand Factors Comparisons

Comparison of Residential Demand Factors					
2005 General Plan FEIR		2010 UWMP ^[2]		2011 Water Master Plan ^[1]	
Residential	450 gpd/du	Single-Family	293 gpd/du	Low (NL)	432 gpd/du
				Medium (NM)	199 gpd/du
		Multi-Family	1530 gpd/du	High (NH)	192 gpd/du

[1] Assumes the average density (du/acre)

[2] Assumes 1 account = 1 du



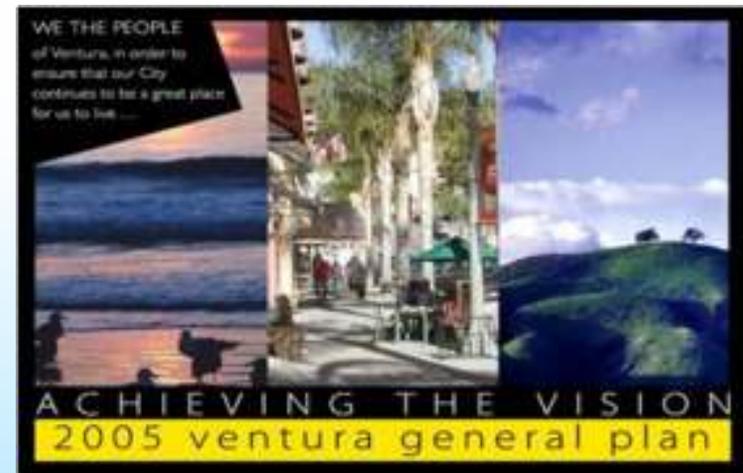
Defining Current Demand

- **2005 consumption**
- **Preliminary baselines**
 - **5 year average**
 - **FY 2012 consumption**

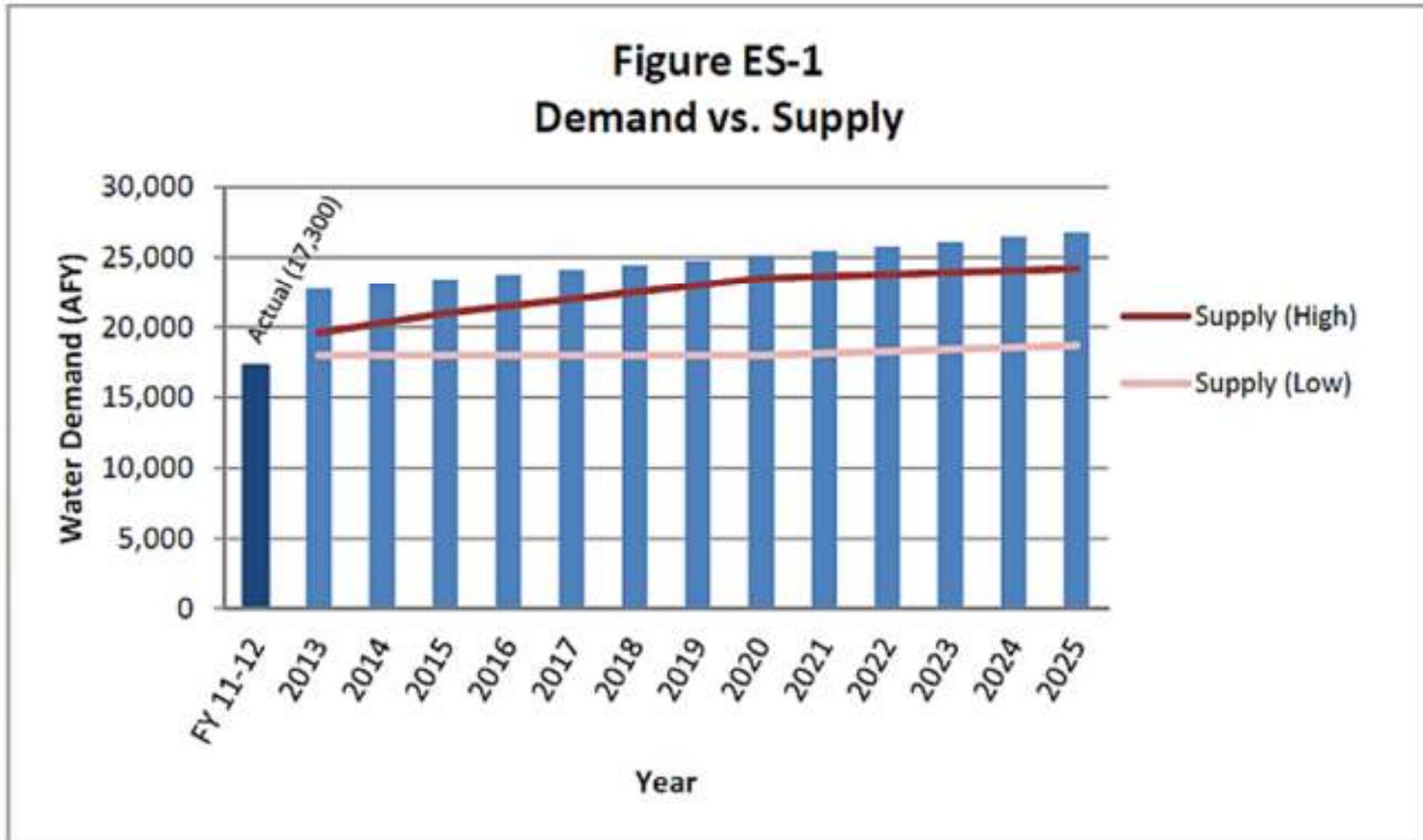


General Plan Projections

- **Final Environmental Impact Report**
- **Built, in construction, approved**
- **Future 2025**

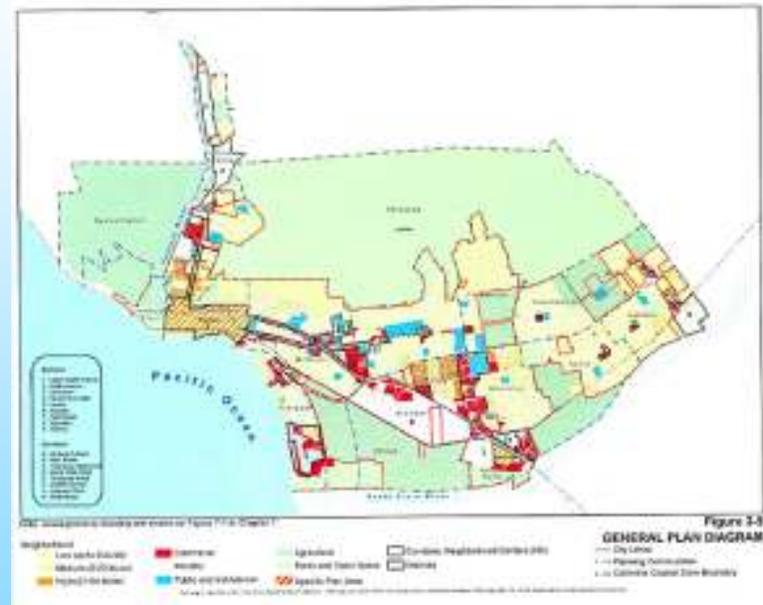


Demand Overstated



Define Demand Factors

- Usage History/Industry Standards
- Planning Tool
- Consistency



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Supply Opportunities

State Water Project

- **10,000 AF allocation**
- **Lease/transfer**
- **Infrastructure**
- **Renewal**



Recycled Water

- **Estuary Special Studies Phase II: Facilities Planning Study for Expanding Recycled Water Delivery**



SCR Estuary Special Studies Water Use Alternatives Evaluation Criteria



Improve effluent quality



Reduce effluent flow



Create new habitat



City water supply benefit



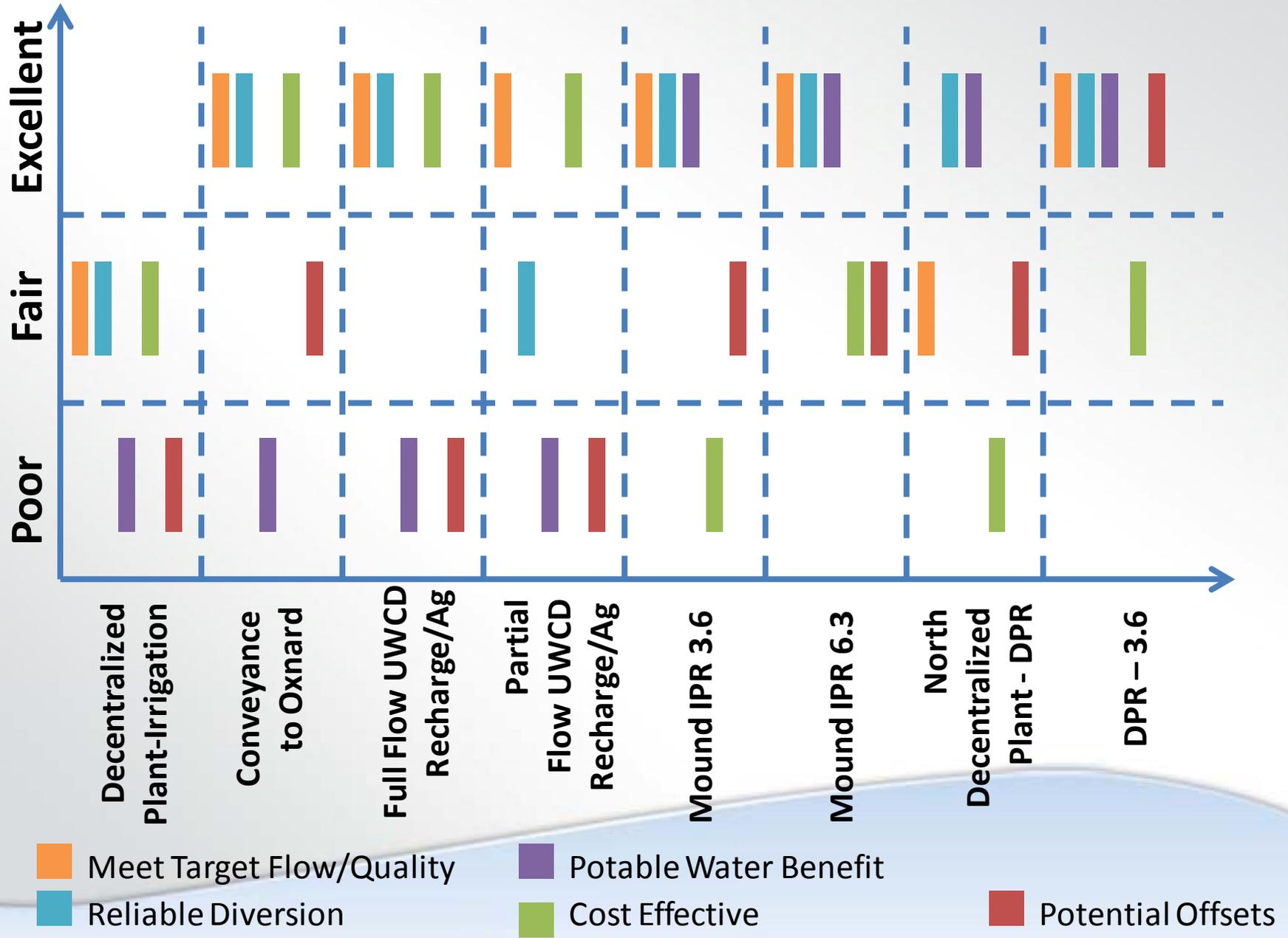
Reliable water management practice



Cost

Discharge to SCRE – Flow and Quality		Predicted SCRE Nitrate Concentration Range (mg-N/L)	Predicted Habitat, acres		
Flow (mgd)	Nitrate Concentration from treatment wetlands (mg-N/L)		Steelhead	Tidewater Goby	CLT and WSP nesting
No Action (6.3)	8 (no wetlands)	6.2 – 7.7	148	101	167
0	0	9.6 – 12.5	58	107	183
2	4	4.5 - 8	78	110	183
4	4	3 – 5.2	115	111	182
5	4	2.8 – 4.7	132	110	177
8	5	3.5 – 4.9	157	85	160

Comparison of Alternatives vs Criteria



Water Efficiency

- **5 Year Water Efficiency Plan**
 - Indoor
 - Outdoor
 - Operations



Water Rights Ordinance Concept

- **Bring water rights**
 - all
 - portion
- **In-lieu fees**
 - all
 - portion



Next Steps

- **Define/refine demand factors**
- **Develop tracking process**
- **Return to Council in May**

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Discussion

Follow Ventura Water on

