



Water Management Plan Update

May 19, 2010

Capital Improvements Advisory Committee

Kelley Neumann

Senior Vice President / Strategic Resources

Overview of Presentation

Updates on:

- Edwards Acquisitions / ASR storage
- Filling the gaps
 - 2009 WMP
 - Existing supplies
 - New drought scenario (2010)
- 2009 drought experience
- Regional Carrizo
- Brackish Groundwater Desal
- Current risks to projects

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Successful Edwards Acquisitions (Acre-Feet)

Brief History

By Year and Type

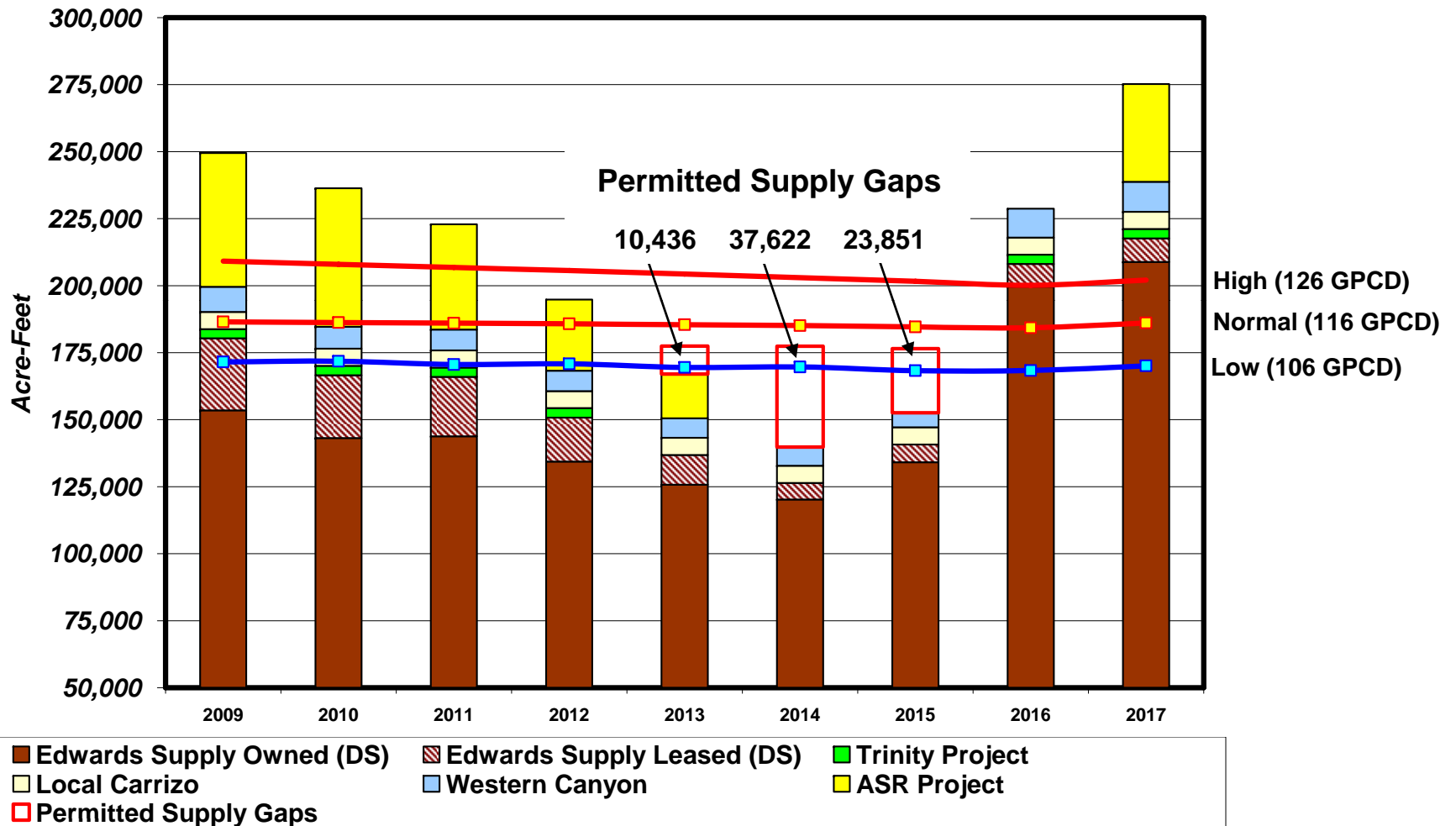
Year	Leases	Purchases	Other
2006	597	433	
2007	8,991	2,331	
2008	11,323	9,482	
2009	15,537	10,662	
<i>Totals</i>	36,448	22,908	2,672

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Filling the Gaps

Permitted Supply Gaps Identified in 2009 WMP



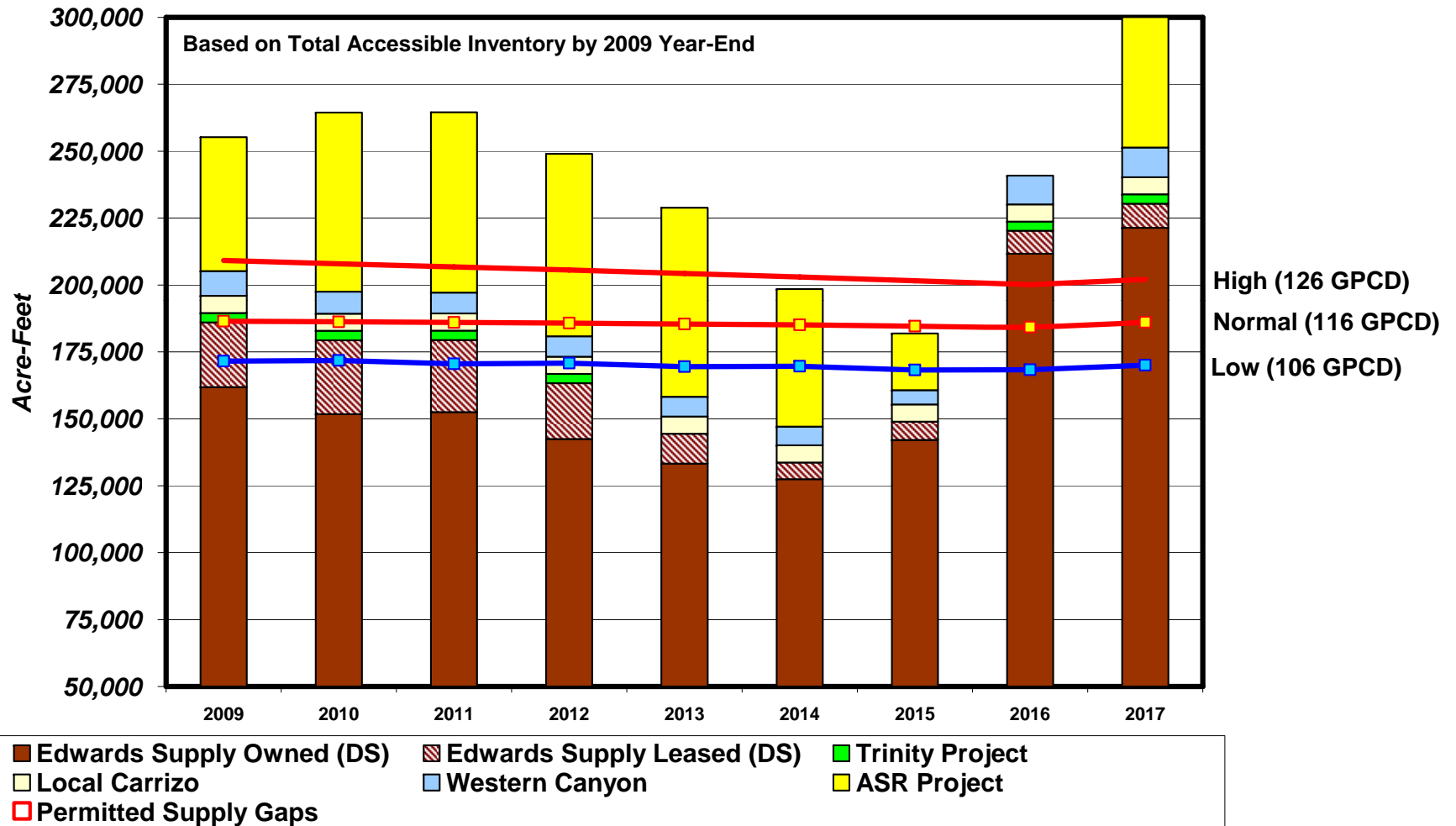
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Filling the Gaps

Impact of Added Edwards Supplies and Increased ASR



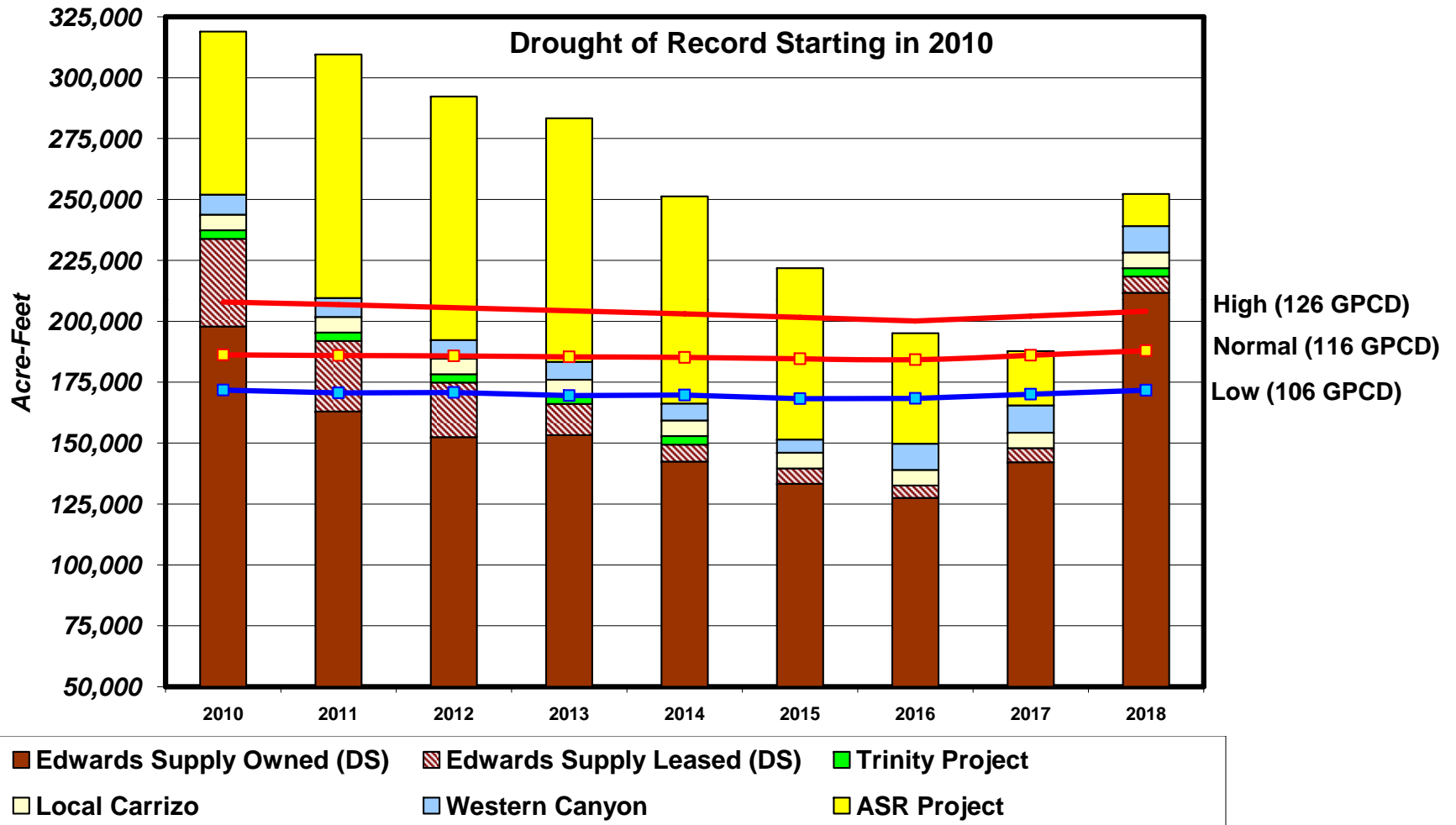
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Filling the Gaps

Impact of Added Edwards Supplies and Increased ASR

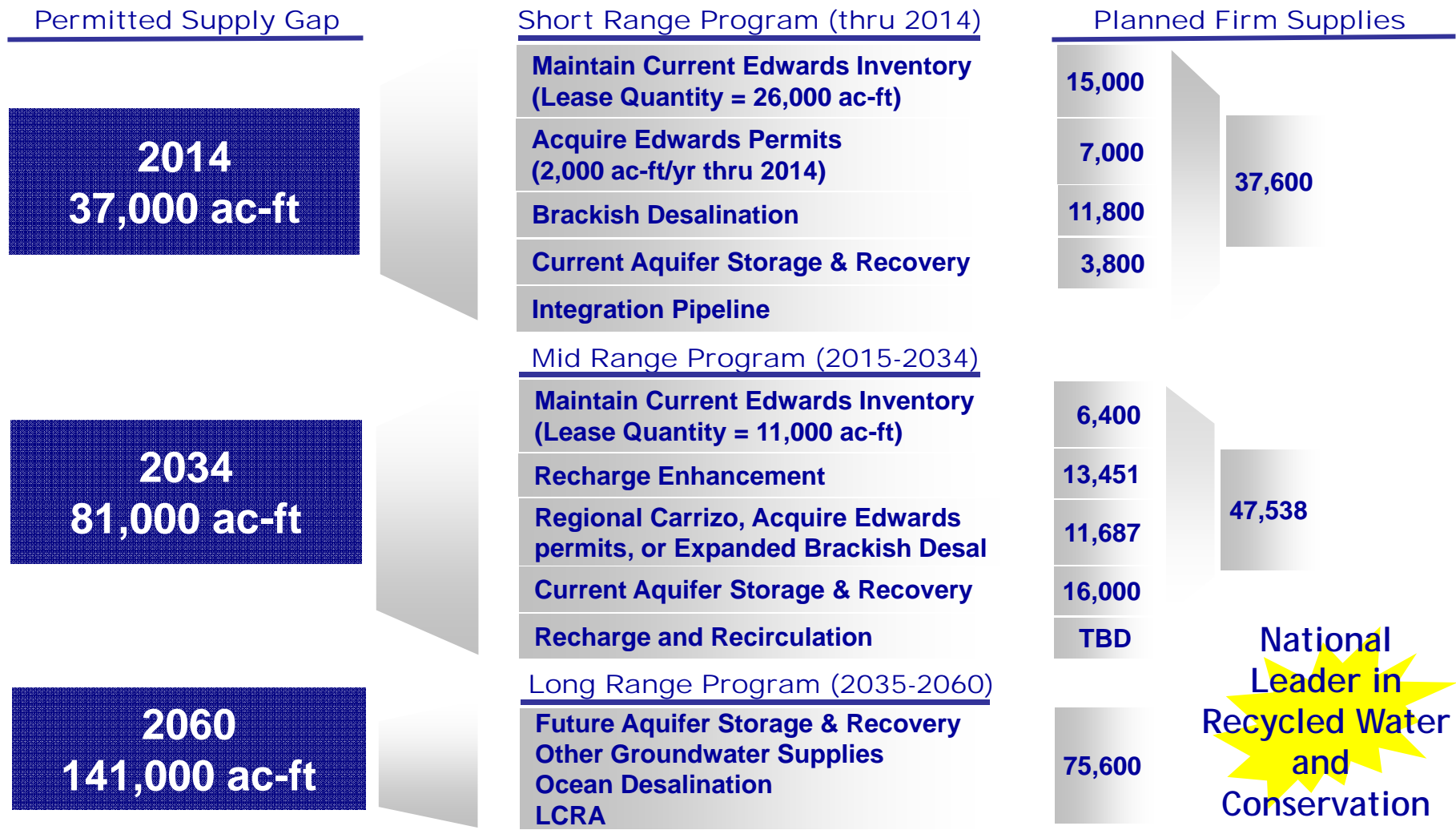


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Filling the Permitted Supply Gap*



Water 12002010

*Assuming *the Single Worst Year* of the Drought of Record

Edwards Activity

- Over \$118.1 million has been spent on Edwards purchases since 2006
- Program has been a success
 - Exceeded short-term goals (WMP)
 - Provided the additional supply for storage at ASR which is now at approximately 66,000 acre-feet of storage
- Looking forward
 - Continue to convert leases to permanent
 - Continue to purchase Edwards water
 - Hold on execution of new leases
 - Stay engaged in various groundwater regulatory efforts

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2009 Drought Experience

- Direction from SAWS Board of Trustees provided sound policy and management to allow for effective proactive drought responses
- Internal teams key to recommendations on ASR and resourcing needs
- External Communications managed numerous media requests and maintained a positive image through education

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2009 Drought Experience

- SAWS customers responded to the call for additional management of demand, saving approximately 30,000 af
- Our overall financial position remains strong despite drought followed by unusual rainfall
- No adverse impacts to business activities due to drought

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Regional Carrizo Project

- Water Management Plan Description
 - Permit applications to produce and transport 11,687 AF per year are now pending at GCUWCD
 - Anticipate decision from GCUWCD in June 2010
 - If decision is favorable to SAWS and not appealed to District Court, water delivery to San Antonio by 2015
 - If decision is appealed, schedule could be impacted by several years
 - New pipeline to southern Bexar County (Twin Oaks – ASR)
 - Decision point for pipeline estimated in 2010
 - Project is “preferred choice” to fill portion of mid-term supply gap

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Regional Carrizo Project – SSLGC/CRWA

- Continue to work on possible agreement with SSLGC
 - Share pipeline and treatment plant
- Deliver SAWS water and any excess water from SSLGC system and/or CRWA
 - CRWA has 3,000 acre-feet of Gonzales water
- Possible additional partnership opportunities with local entities in Gonzales County
 - City of Nixon
 - City of Smiley
 - Gonzales County Water Supply Corporation

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Regional Carrizo Project – Costs to Date

December 31, 2009

O&M Cost

\$11,300,000

CIP Cost

\$28,000,000

Total Cost

\$39,300,000

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Regional Carrizo Project – Projected Cost Estimate

	Current Delivery To Twin Oaks (ASR)*	Delivery To Naco PS Through SSLGC*
AF Delivery	11,138	11,138
Capital Supply	\$ 223,993,423	\$ 76,611,452
Supply Cost/Per AF	\$ 1,647	\$ 1,442
Integation	\$ 29,410,182	\$ 37,116,535
Integration Cost/AF	\$ 216	\$ 154
Total Capital	\$ 253,403,605	\$ 113,727,987
Total Cost/AF	\$ 1,863	\$ 1,596

* Includes Written off Design Costs

Brackish Groundwater Desalination

- Water Management Plan Description
 - Plant in Southern Bexar County
 - Source of water is the Wilcox aquifer
 - Phase 1 will be 11,800 AF/yr with the possibility of future expansion
 - Water delivery in 2014

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Why Brackish Desalination?

- Governor Perry's 2002 Desalination Initiative
- Un-tapped resource
- "The Carrizo-Wilcox should be considered as one of the best potential sources for brackish water in Texas" (TWDB)
 - Over 300 million acre-feet in Region L alone
- Resource located under our feet, close to San Antonio



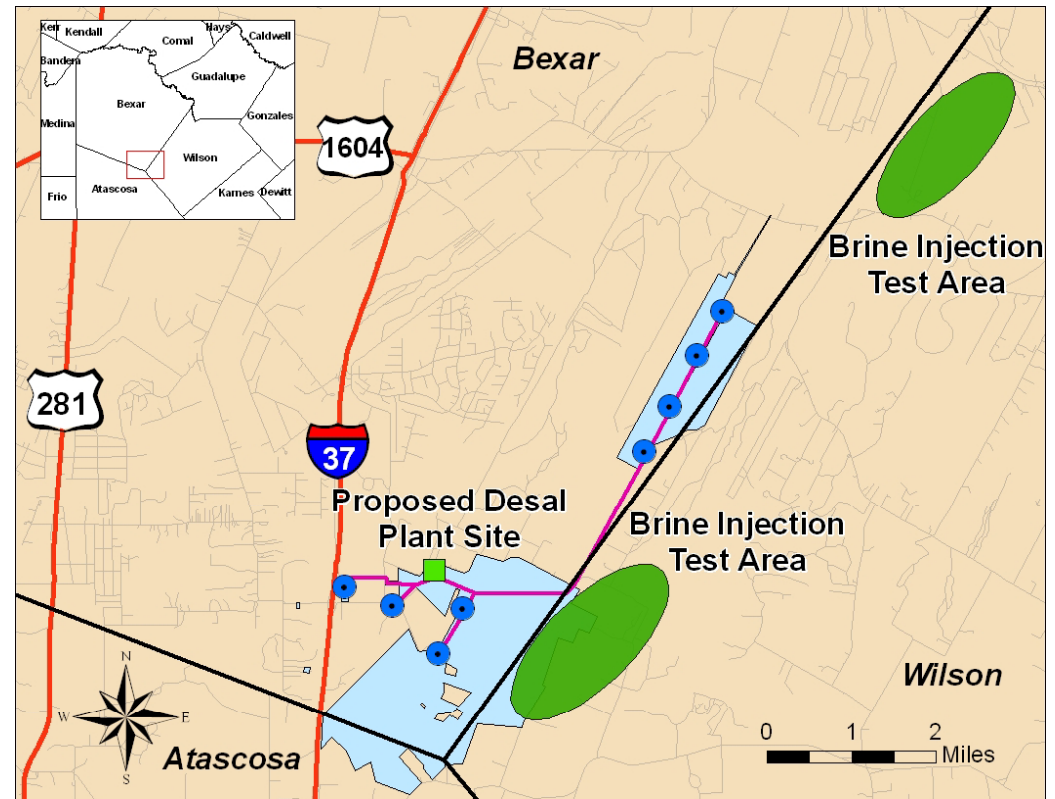
Kay Bailey Hutchison Desalination
Plant – El Paso, Texas

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General Concept

- Production / Monitor Wells
- Reverse Osmsis Treatment Plant
- Brine Injection Wells
- Pipeline system
- Electrical system



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What Have We Done So Far?

- Feasibility
 - Determined location of the brackish water
 - Drilled test sites
 - Determined long-term sustainability and quality
 - Investigated brine disposal options
 - Completed VSEP investigation
- Assisted in passage of new legislation for alternative procurement and streamlined permitting
- Pipelooop Testing
- Land acquisition



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Recent Progress

- Secured \$35 million in TWDB deferred, low interest loans
- Membrane Pilot Testing
- Identified possible sites for brine injection testing
- Successful public outreach



SAWS Membrane Pilot Test Unit

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What Challenges Do We Face?

- Brine Disposal – finalize location and formation
- Restrictions & Regulations
- Land acquisition for various components of the project
- Location of complete well field for Phase 1
 - 8 out of 13 locations known
- Public Relations

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Projected Timeline

What We Will Do this Year and Beyond

High Level Project Element	Projected Timeline	Estimated Cost
Feasibility, Pilot Test, Land	Authorized To Date	\$15 million
Award Design Well Field Package 1	Feb-10	\$1.1 million
Finalize Procurement Method	Mar-10	N/A
Design & Const. New Brine Injection Test Well	May-10	\$3 million
Test an Existing Injection Well	May-10	\$ 1 million
Land Acquisition	Jun-10	\$9 Million
Additional Pilot Testing	Jun-10	TBD
Engage Program Manager	Aug-10	\$18 million
Construction Well Field Package 1	Nov-10	\$10 million
State Permitting, pipeline system construction, plant construction and opening	2011-2015	128 Million
Plant Opening	2015	\$185 million

Cost per Acre Foot \$ 1,924

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Project Risks to be Managed

- Recovery Implementation Program (RIP)
- Groundwater district rules
- Permits
- Environmental flows
- Desired future conditions
- Future legislation
- Rate impacts

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