# This presentation premiered at WaterSmart Innovations

watersmartinnovations.com





#### Karen Guz Director / Conservation

### **Background: San Antonio**



- San Antonio is America's 7<sup>th</sup> largest city and growing fast
- SAWS is largest local provider of water and wastewater services provided for over 1.3 million people
- Primary supply is an aquifer which also feeds springs and rivers key to sustaining endangered species, aquatic habitats and estuaries
- All new supply options are expensive and politically controversial
- Region is drought prone with extreme precipitation fluctuations



### **1996 Drought Responses**



#### By KEN DILANIAN

EXPRESS-NEWS STAFF WRITER

Flanked by local leaders at a dramatic City Hall news conference, Mayor Bill Thornton vowed Friday to appeal a federal judge's order that he decried as favoring animals over people.

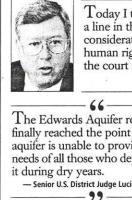
"Today I think it's time we draw a line in the sand to fight for consideration of humans and human rights," Thornton said. "Quite frankly, the court is jacking us around.'

Thornton's sentiments were echoed by a variety of city officials who protested an order by Senior U.S. District Judge Lucius D. Bunton III that may require San Antonians to stop watering their lawns in an effort to save five federally protected species at Comal and San Marcos springs.

After years of warnings, threats and voluntary plans, Bunton finally imposed a legally binding court order in response to allegations from the non-profit Sierra Club that San Antonio's Edwards Aquifer water use is violating the Endangered Species Act.

Governments at all levels have failed to properly preserve the Edwards, Bunton wrote, and that failure is killing species in violation

See THORNTON/8A



consideration of humans and human rights. Quite frankly, the court is jacking us around. - Mayor Bill Thornton

The Edwards Aquifer region has finally reached the point where the aquifer is unable to provide for the needs of all those who depend upon - Senior U.S. District Judge Lucius D. Bunton III

#### By JERRY NEEDHAM EXPRESS-NEWS STAFF WRITER A federal judge ordered restric-

tions on pumping from the Edwards Aquifer by the city of San Antonio and other defendants Friday, in an endangered species lawsuit filed by the Sierra Club.

Mayor Bill Thornton and City Council members vowed an appeal.

The order by Senior U.S. District Judge Lucius D. Bunton III does not take effect until Oct. 1. Depending on how much rain falls by then, the San Antonio Water System and other large users of aquifer water could be limited to no



The water debate is about a lot more than blind critters. Carlos Guerra/1B

more than 1.2 times their winter average pumpage.

Joe Aceves, SAWS president, said that to meet that limit, the city probably would have to ban any outdoor water use by residen-

See FEDERAL/8A

#### Multi-year drought would be a Stage IV by today's standards



# **Drought Management 2009**

- City rules enacted early response with good result
- Strong support from media, stakeholders, law enforcement, city and utility departments
- Rules worked to reduce pumping early
- Each stage has rules to achieve more savings





# San Antonio Drought Management



# **Drought Restrictions**

- The Drought Management Plan
- Implementation
- Enforcement
- Results!





### **Drought Management Plan**



Conservation Ordinance

http://www.saws.org/conservation/ordinance/

- Codified in CH 34 of City of San Antonio code
- Enacted by SAWS with support from the City of San Antonio
- Effective to the ETJ
- Effective for ALL water users out to ETJ regardless of water source
- Backed by criminal process



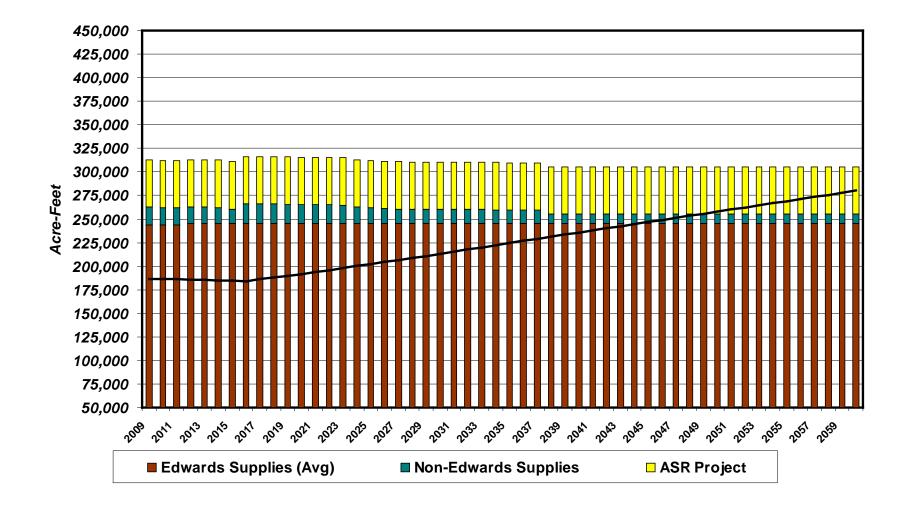
### **Plan Basics**

Edwards Stage	Edwards Supply	<b>City Restrictions</b>
660 ft msl Stage I	Loss of 20%	Water 1X/Week
650 ft msl Stage II	Loss of 30%	Water 1X/Week Reduced Hours
640 ft msl Stage III	Loss of 35%	Water 1X Every OTHER Wk Reduced Hours
630 ft msl Stage IV	Loss of 40%	All Above Plus Surcharge Excess Usage

Other rules apply for car washing, power washing, pools, decorative fountains, and hotel linen programs

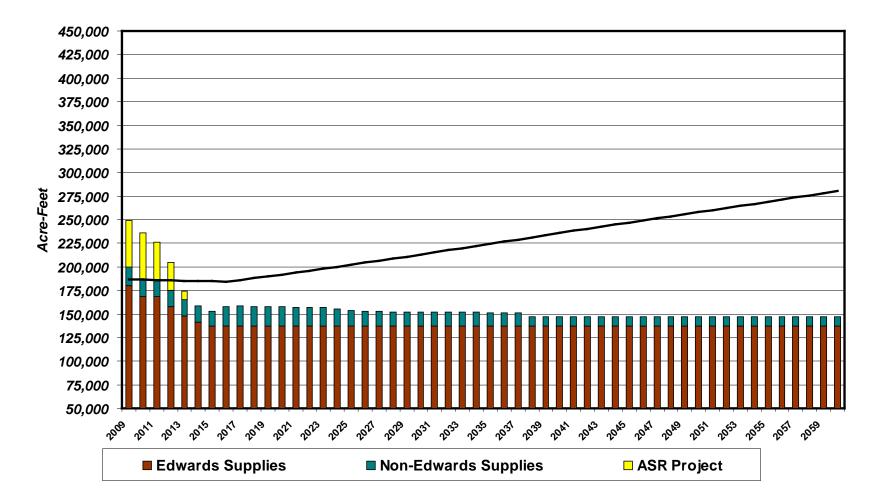


# Water Supply: No Restrictions

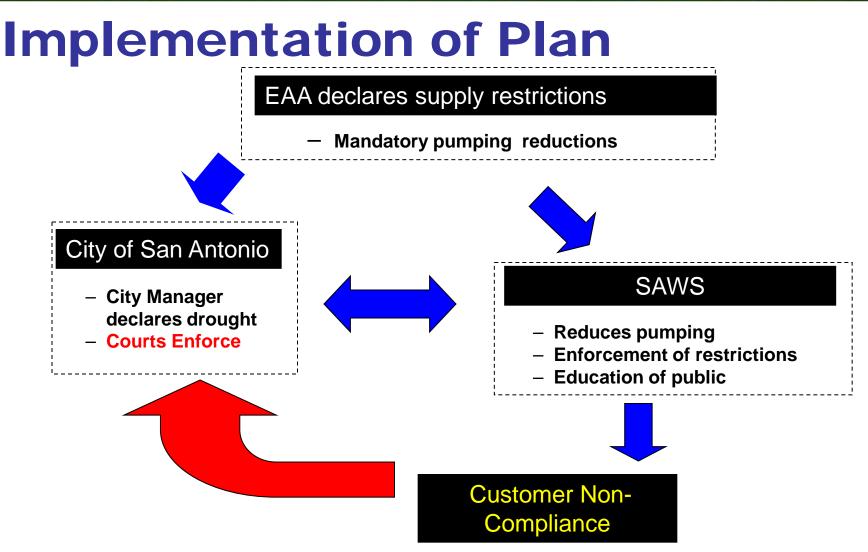




# Water Supply: Severe Drought









## **Communications to Customers**

- Prepared quick, creative, and clear media on drought stages
- Met with stakeholders; irrigators, property managers, pool companies and more.
- Responded to MANY media requests through the summer
- Message stayed current despite ever changing conditions



The severe drought has put San Antonio in the national spotlight this summer. Many of the stories focus on how San Antonians work together to save water.

"San Antonio... is enduring its driest 23-month period... the city's not just sitting around, though."

Associated Press

"With water a precious commodity... San Antonio residents are doing their part to guard against waste."

Good Morning America

"To solve Austin water woes, look to San Antonio."

Austin American-Statesman

By working together to follow drought restrictions, San Antonians have cut up to 100 million gallons per day from the city's water needs. For that, San Antonio, you've earned a hearty, "Thanks! And keep up the good work!"

Get the message? Save water.

saws.org 704-SAWS (704-7297)

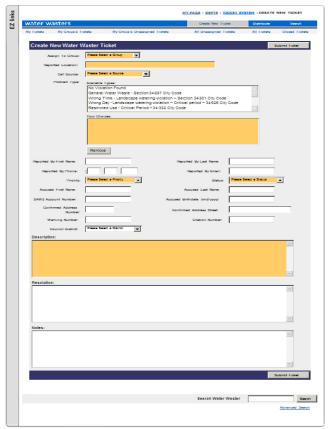




### **Citizen Response**

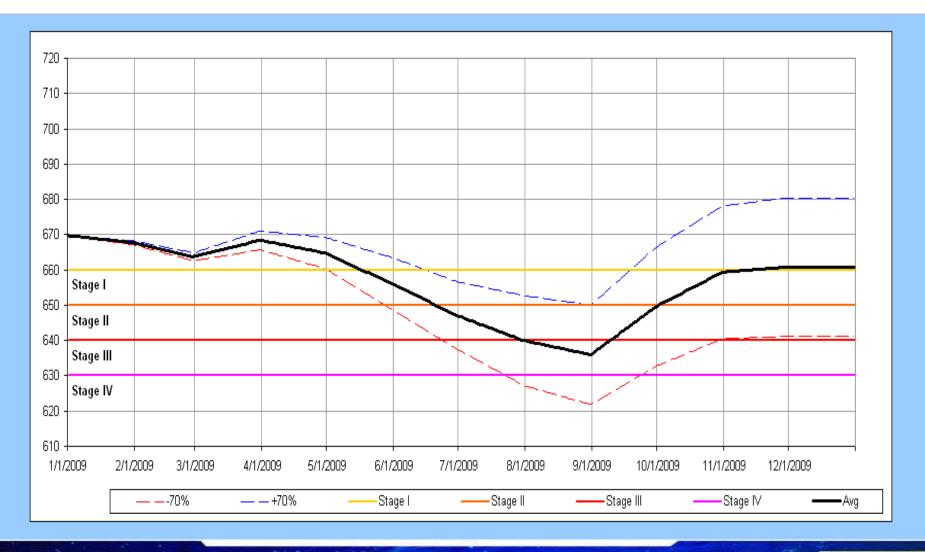
- Most citizens complied
- Violation reports came in at 200/day
- Hired ten temporary staff and interns quickly to keep up
- Drought patrol monitored neighborhoods at all hours
- Over 10,000 warnings were given
- Over 2,000 citations were given for violations







# **Early Drought Outlook Grim**





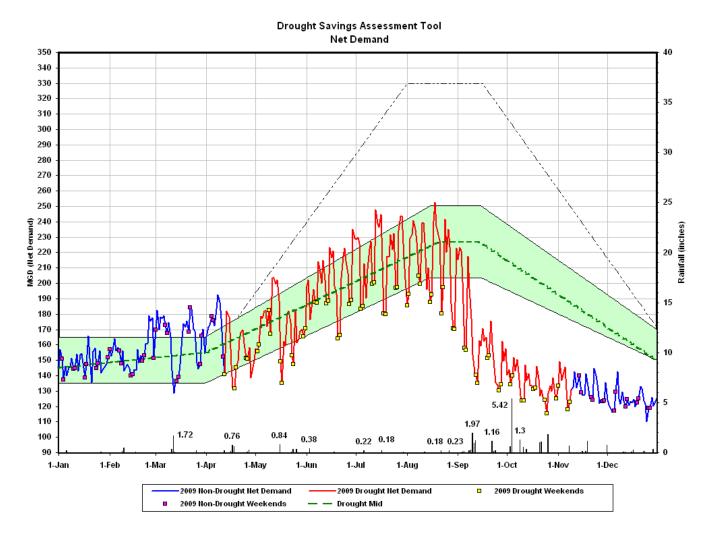
### **J-17 Results: Exceeded Expectations**





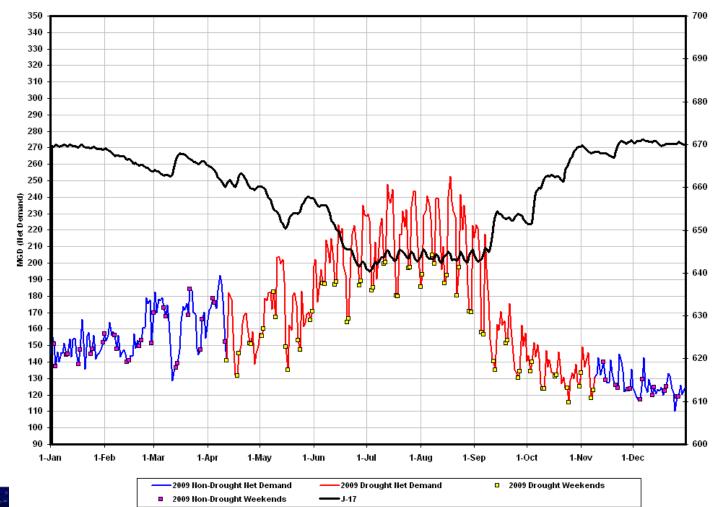
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### **Results: Reduction in Usage!**





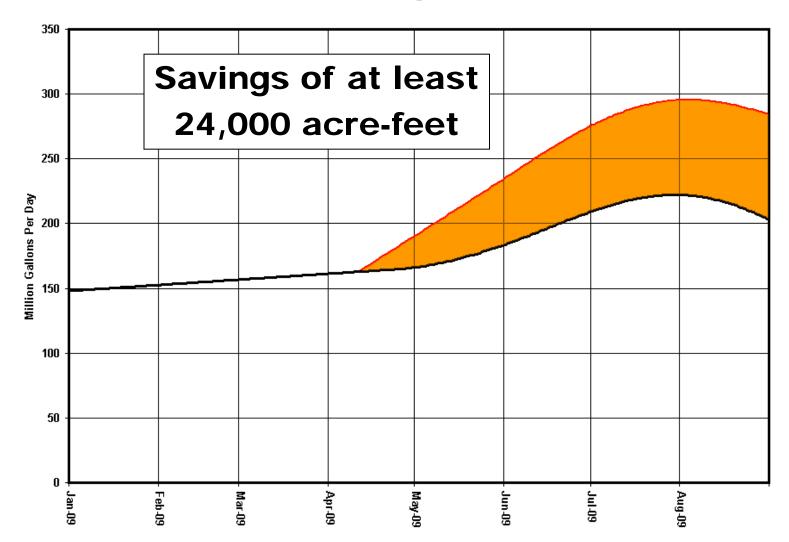
### **Pumping & Aquifer Levels Together**



Net Demand Vs. J-17 Levels



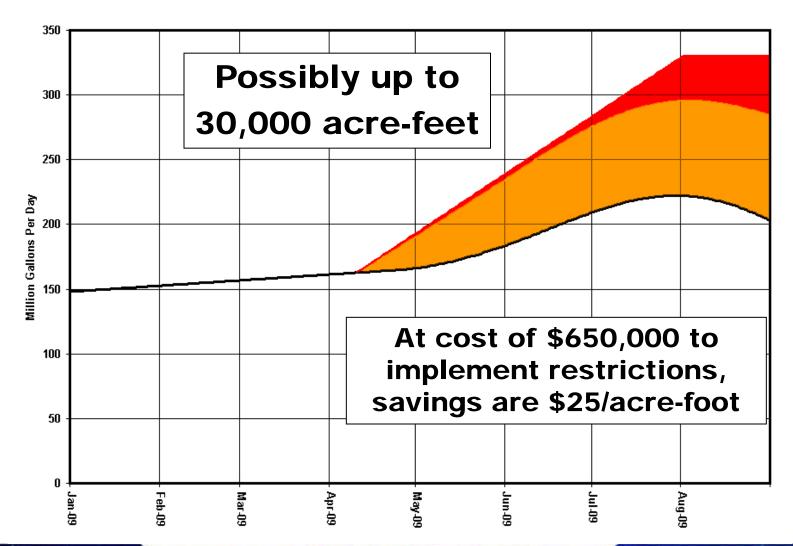
### **2009 Water Savings**







### **2009 Water Savings**







# Summary of 2009 Drought

- Our Water Management Plan was supported by the results of 2009.
  - Customers responded quickly to the 660' msl trigger point
  - Savings were sustained over entire drought period & beyond
  - Stage Two restrictions held reductions even in extraordinary weather conditions
- Post drought analysis
  - Landscape restriction rules were effective and enforceable
  - Plan to update rules for car washes, pools, indoor fountains
- Cooperation in San Antonio
  - SAWS, City of San Antonio, other water providers, other regional cities, police and media all shared getting through drought of record without long-term economic impact to city





### **RIP** Meeting

Karen Guz Director / Conservation