

# Water Delivery - Flow Impact Fees

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October 10, 2013

Capital Improvements Advisory Committee Meeting



# Water Delivery Flow Overview

- Evolution of Water System in San Antonio
- Overview of Current Water System
- Water Impact Fees Service Area
- Water Delivery - Flow
  - System Capacities 2014 -2023
  - Eligible CIP Costs
  - Future Water Infrastructure 2014 – 2023
  - Existing Infrastructure (Equity)
  - Projected Added Cost for 10 Years of Growth
  - Impact Fee Allocation

# Evolution of San Antonio Water System

## Early Years



*The Blue Hole, + 11,000*



*Espada Aqueduct, 1745*



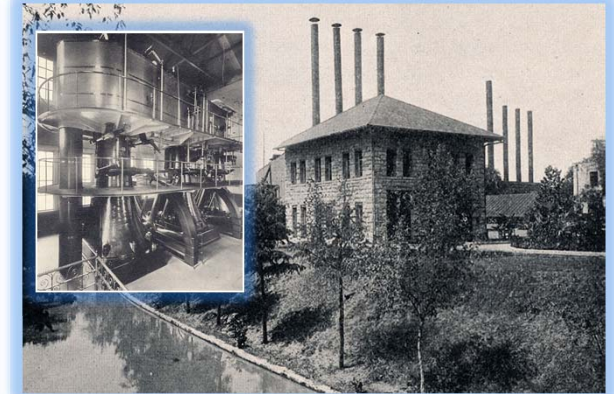
*Presidio de Béxar, 1764*



*Brackenridge Pump House #1, 1877*



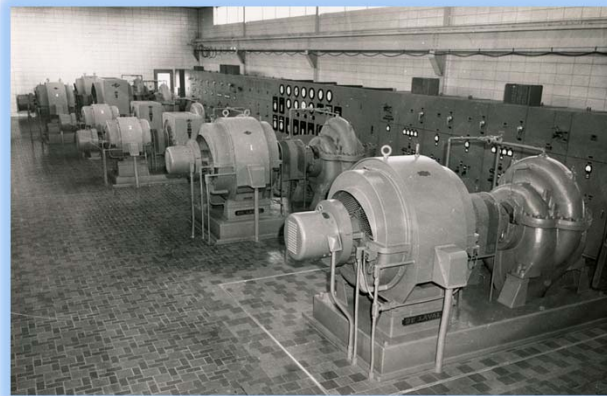
*Brackenridge Pump House #2, 1885  
The Borglum House*



*Market Pump Station, 1908*

# Evolution of San Antonio Water System

## Later Years



*Basin Pump Station, 1959*



*Production Control Center, 1968  
First in Nation Full Automation*



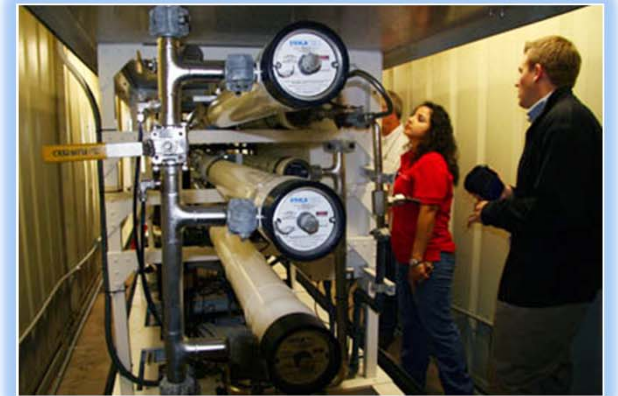
*Micron Pump Station, 2003*



*Aquifer Storage and Recovery, 2004  
Twin Oaks*



*Medina River Plant, 2012  
Ultrafiltration (Built by UWS in 1999)*



*Desalination, 2016  
Reverse Osmosis*

# Types of Impact Fees

- Water Flow



- Water System Development



- Water Supply



- Wastewater  
•Collection

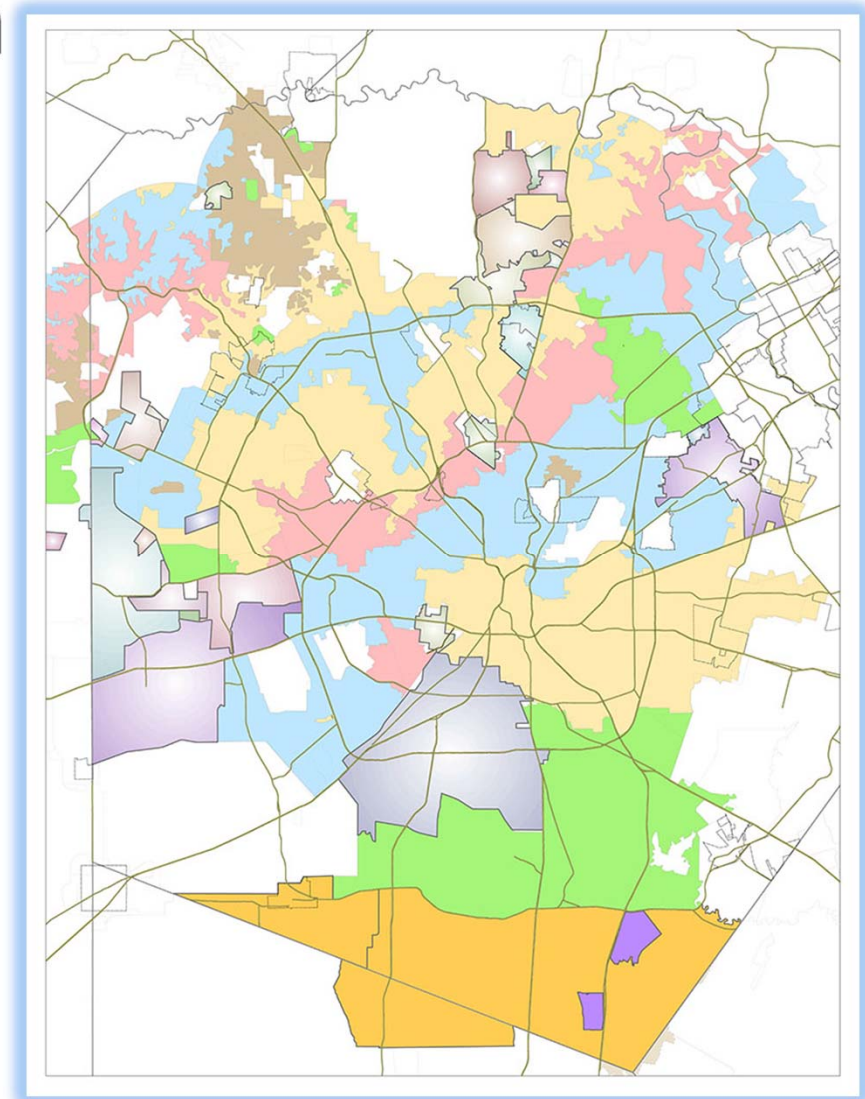


- Wastewater Treatment

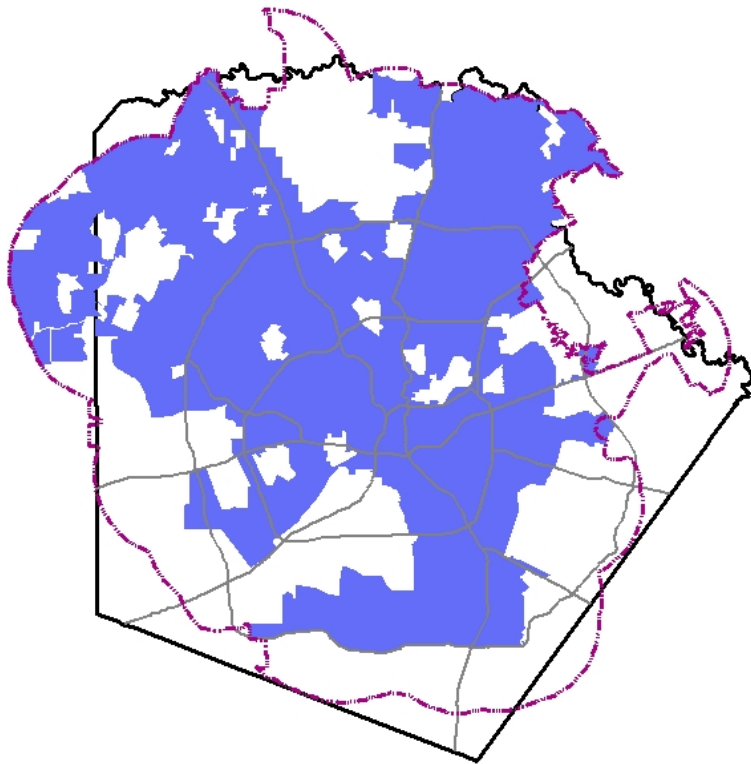


# Current Water System

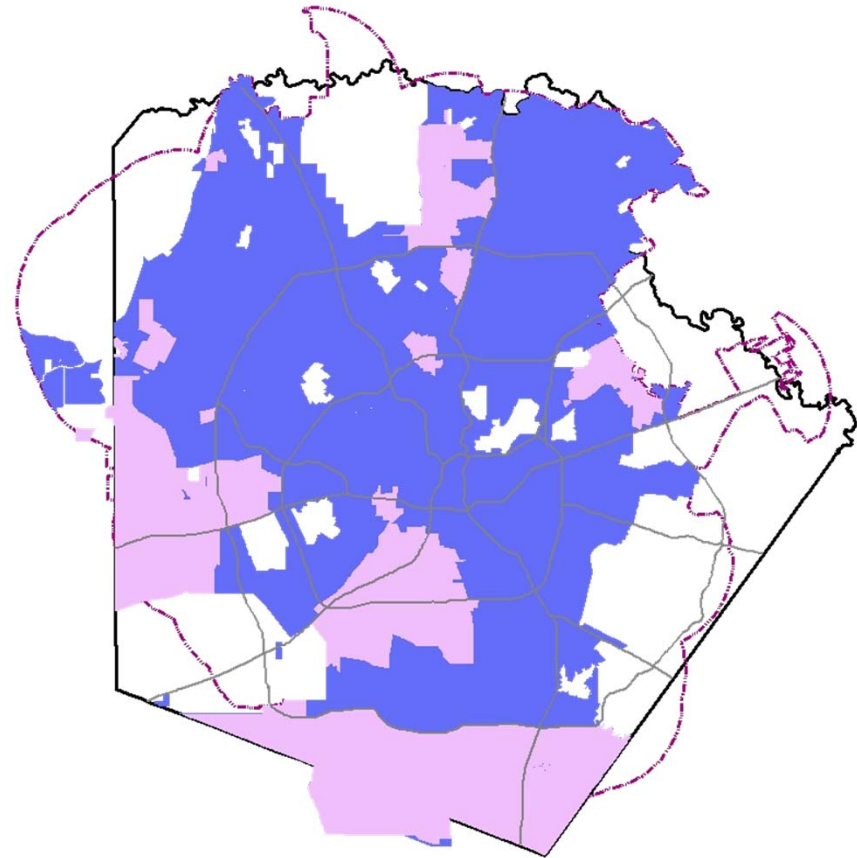
- 23 “pressure zones”
  - **7,600 miles of mains**
  - 54 (33 DSP) Primary
  - 39 (18 DSP) Secondary
  - 40 (12 DSP) Booster
  - 114 Ground Storage Tanks
  - 37 Elevated Tanks
- Distributed production facilities
- Complex operations



# 2010-2012 Water Service Area Change



2010



2012

# SAWS/Bexar-Met Impact Fees Consolidation

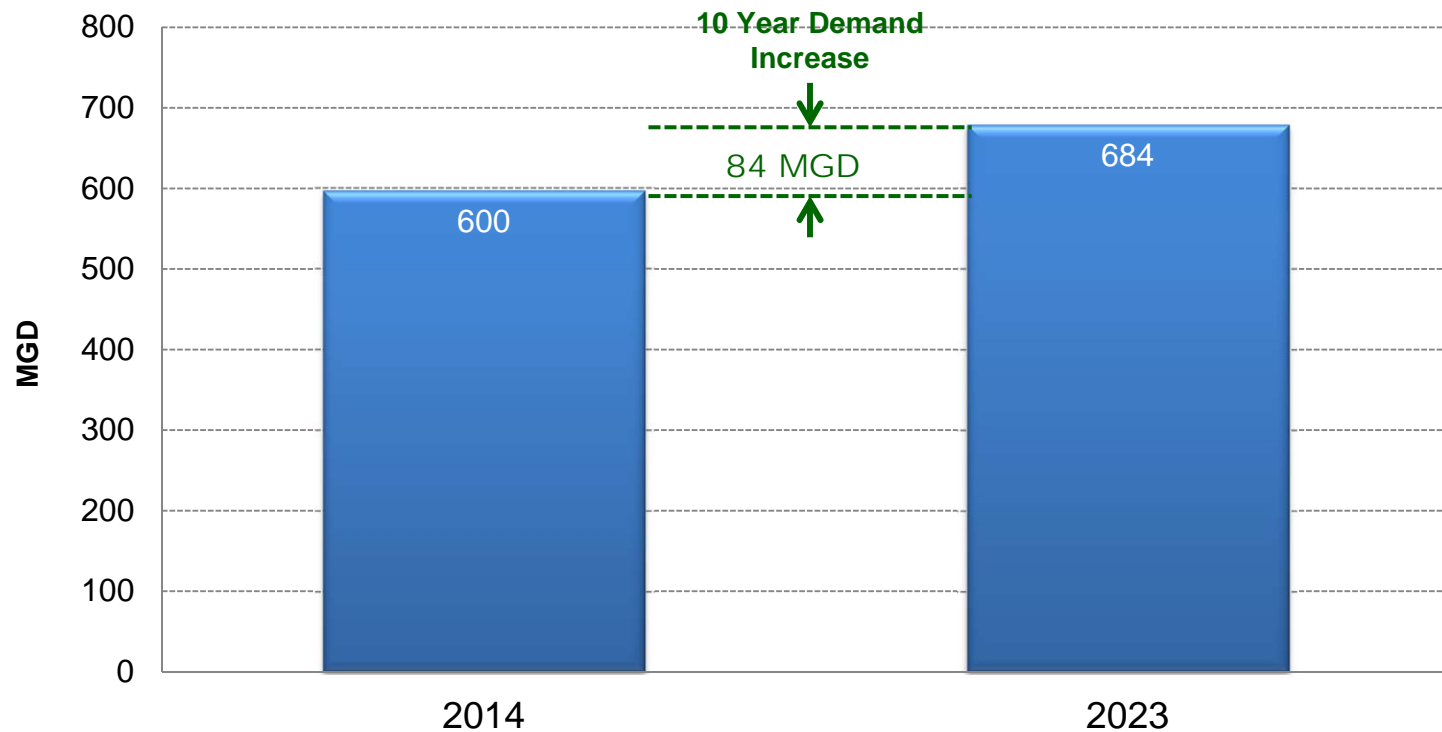
## Integration Impacts on System

- Offsets applying TCEQ criteria for 31,560 connections
  - 27.3 MGD of 401.3 MGD excess well capacity
  - 90.9 MGD of 72.6 MGD excess service pumps capacity
  - 6.3 MG of 89.7 MG excess total storage capacity
  - 3.2 MG of 18.3 MG excess elevated storage capacity
- Integrated areas have minimal immediate impact
- Stand-alone areas have no immediate impact
- Integration eliminated CIP should reduce fees



# Water Delivery Eligible Capacities and Flows

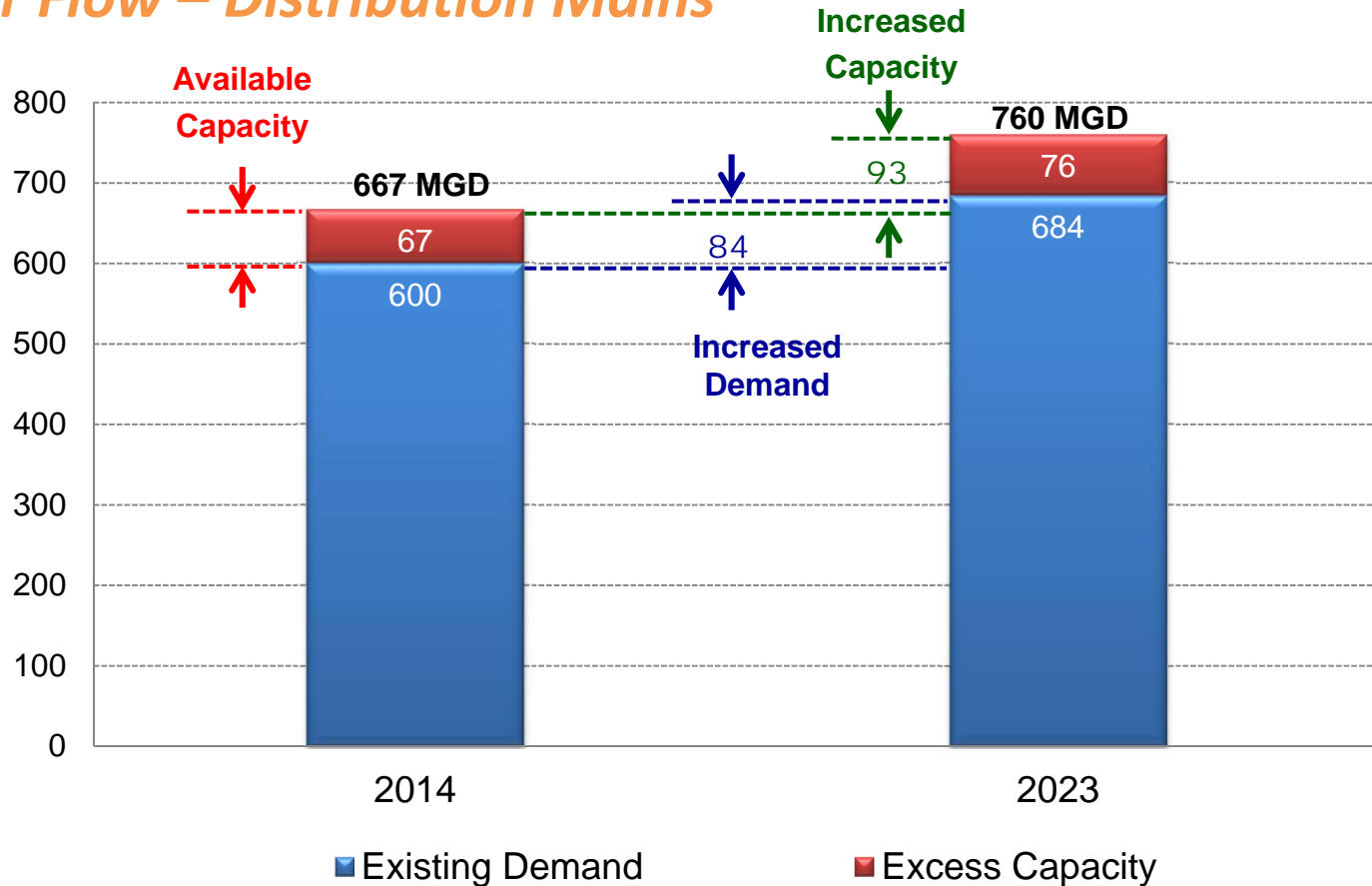
## Flow – Distribution Mains



Average day demand is assumed to be 127 gpcd and peaking factor is 2.81.

# Water Delivery Capacities and Flows

## Water Flow – Distribution Mains



Study Period Growth Allocation =  $67 \text{ mgd} / 667 \text{ mgd} = 10.0\%$  (Existing)

Study Period Growth Allocation =  $17 \text{ mgd} / 93 \text{ mgd} = 18.3\%$  (Future)

# Future Water Infrastructure 2014 – 2023

## Water Distribution – CIP Values By Pressure Zone

Pressure Zone	Number of Projects	Value of Projects (\$ million)	Pressure Zone	Number of Projects	Value of Projects (\$ million)
2	5	\$2.69	9	16	\$17.35
3	20	\$14.66	10	9	\$16.58
4	30	\$21.15	11	35	\$18.78
5	7	\$0.72	12	23	\$11.65
6	11	\$8.80	14	4	\$6.05
7	45	\$35.91	DSP	30	\$29.07
8	30	\$17.24	<b>TOTAL</b>	<b>254</b>	<b>\$200.7</b>

# Future Water Infrastructure 2014 – 2023

## Water Distribution – Highest Value Projects

Pressure Zone	Project Description	Project Value (\$ million)
7	PZ7-02 - Along Wurzbach and Bandera from Wurzbach PS to Eckhert Rd (48-inch)	\$ 8.55
4	PZ4-02 - Along Old Pearsall Rd, Nelson Rd and Loop 1604 from Pvt Rd to Hwy 90	\$ 5.12
10	PZ10-04 - Along PLs looped around Wilderness Oak Tank (16 Inch Dia 27388 LF)	\$ 4.84
9	PZ9-03 - Along PL from Classen Ranch to Batcave Tank (24-inch)	\$ 4.27
9	PZ9-05 - PLs through PZ 9 open area from Bulverde Rd to Encino Rio (24 Inch Dia 15296 LF)	\$ 4.01
3	PZ3-19 - Along FM1356 from S Foster to the end of the CCN	\$ 3.28
7	PZ7-26 - Micron to Anderson tank	\$ 3.28
DSP	GOVT - Potranco Rd: Loop 1604 to HWY 211 - Bexar County is widening Potranco from 1604 to HWY 211 from 2 lanes to 5 lanes with associated drainage improvements.	\$ 3.24

# 2014 – 2023 Eligible CIP Costs

## *Water Flow – Distribution Mains*

Existing Capacity				New CIP Capacity			Total Capacity	
Service Area	Total Value of Capacity	Value of 2014-2023 Capacity	Eligible Financing Costs	Total Value of Capacity	Value of 2014-2023 Capacity	Eligible Financing Costs	Total Value of All Capacity	Total Value of 2014-2023 Capacity
	(\$ mil)	(\$ mil)	(\$ mil)	(\$ mil)	(\$ mil)	(\$ mil)	(\$ mil)	(\$ mil)
ALL	\$631.5	\$63.1	TBD	\$200.7	\$36.6	TBD	\$774.8	\$99.8

# QUESTIONS ?