



# Water Advisory Board

May 10, 2016



# Lipan Aquifer – groundwater developed in Tom Green County

S

- Proximity to Ivie pipeline

W

- 60- to 90-day supply annually

O

- Voluntary irrigation suspension program

T

- Aquifer is susceptible to drought

\$

- N/A



# Edwards-Trinity Plateau in Schliecher County

S

- None known

W

- Availability and quality

O

- SWIFT funding

T

- Legal issues / permitting

\$

- Estimated cost  
\$52 M  
for 4,500  
acft/yr



# Brackish water Whitehorse & Clear Fork formations

S

- Proximity to San Angelo

W

- Limited production capacity and poor quality

O

- SWIFT funding

T

- Drilling would be a wildcatting operation

\$

- Estimated cost - \$65M for 3,750 acft/yr



# Spence transmission line rehabilitation

S

- 3,000 acft/yr yield / 3,000 acft banked
- ROW / easements in place

W

- Low water levels

O

- Line could be used for non-Spence water

T

- Currently only 18 months supply

\$

- 2012 study estimated \$17-\$23 M



# CRMWD system water

S

- Utilize existing infrastructure
- Utilizes entire CRMWD inventory

W

- Water availability not certain

O

- None known

T

- Costly w/ no guarantee of water

\$

- \$50 - \$75 M



# WTWP / Abilene

S

- 8 mgd available

W

- Short-term supply

O

- SWIFT funding

T

- Provides no new water

\$

- \$50 - \$60 M



# Ellenburger – San Saba Aquifer

S

- Proximity to Hickory pipeline

W

- Limited capacity

O

- None known

T

- Reliability

\$

- Estimated cost - \$20 - \$30 M





# Hickory Aquifer

S

- Established well field / infrastructure

W

- Regulatory environment

O

- Expand treatment facility to 10 MGD

T

- None known

\$

- Estimated cost – \$10.5 M



# Hickory Aquifer permitted production

## Schedule of production

March 14, 1996-March 13, 2006

Max annual allocation – 1,500 acft + banked

Max annual production – 10,000 acft

*(All unused allocated water may be “banked” for future use.)*



# Hickory Aquifer permitted production

## Schedule of Production

March 14, 2006-March 13, 2021

Max annual allocation – 2,750 acft + banked

Max annual production – 15,000 acft

*(Total banked to-date – 40,000 acft)*



# Hickory Aquifer permitted production

## Schedule of production

March 14, 2021-March 13, 2026

Max annual allocation – 5,000 acft + banked

Max annual production – 15,000 acft

*(Not entitled to accrue water by “banking” after March 13, 2026.)*



# Hickory Aquifer permitted production

## Schedule of production

March 14, 2026-March 13, 2036

Max annual allocation – 10,000 acft + banked

Max annual production – 12,000 acft



# Hickory Aquifer permitted production

## Schedule of production

March 14, 2036 and thereafter

Max annual allocation – 12,000 acft

Max annual production – 12,000 acft

*(15 wells @ 500 gpm = 10.8 mgd (12,000 acft/yr))*



# Hickory Groundwater Treatment Facility

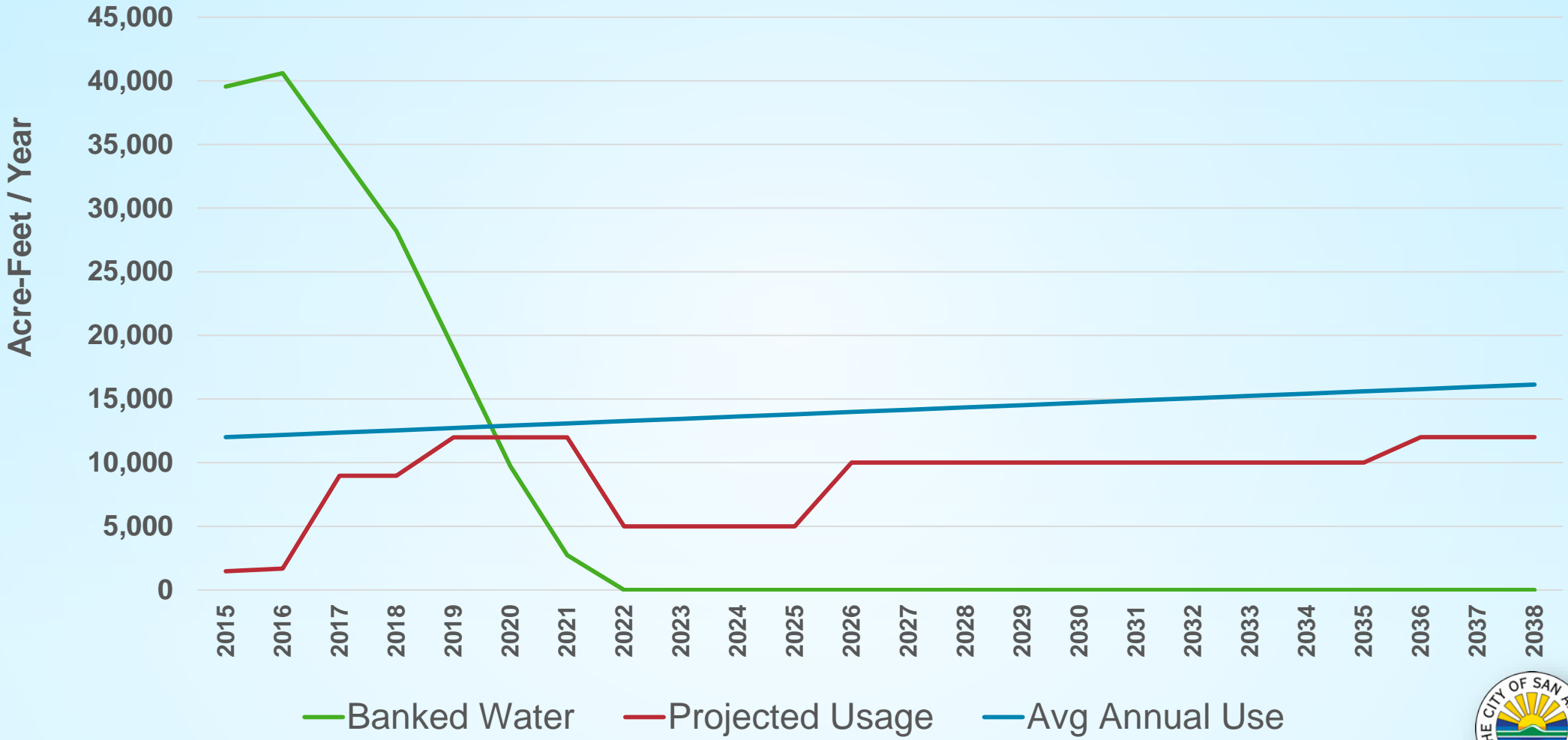
## Treatment capacity

Currently - 8 million gallons/day (mgd)

Expandable to 10 mgd (est. cost \$10.5 million)

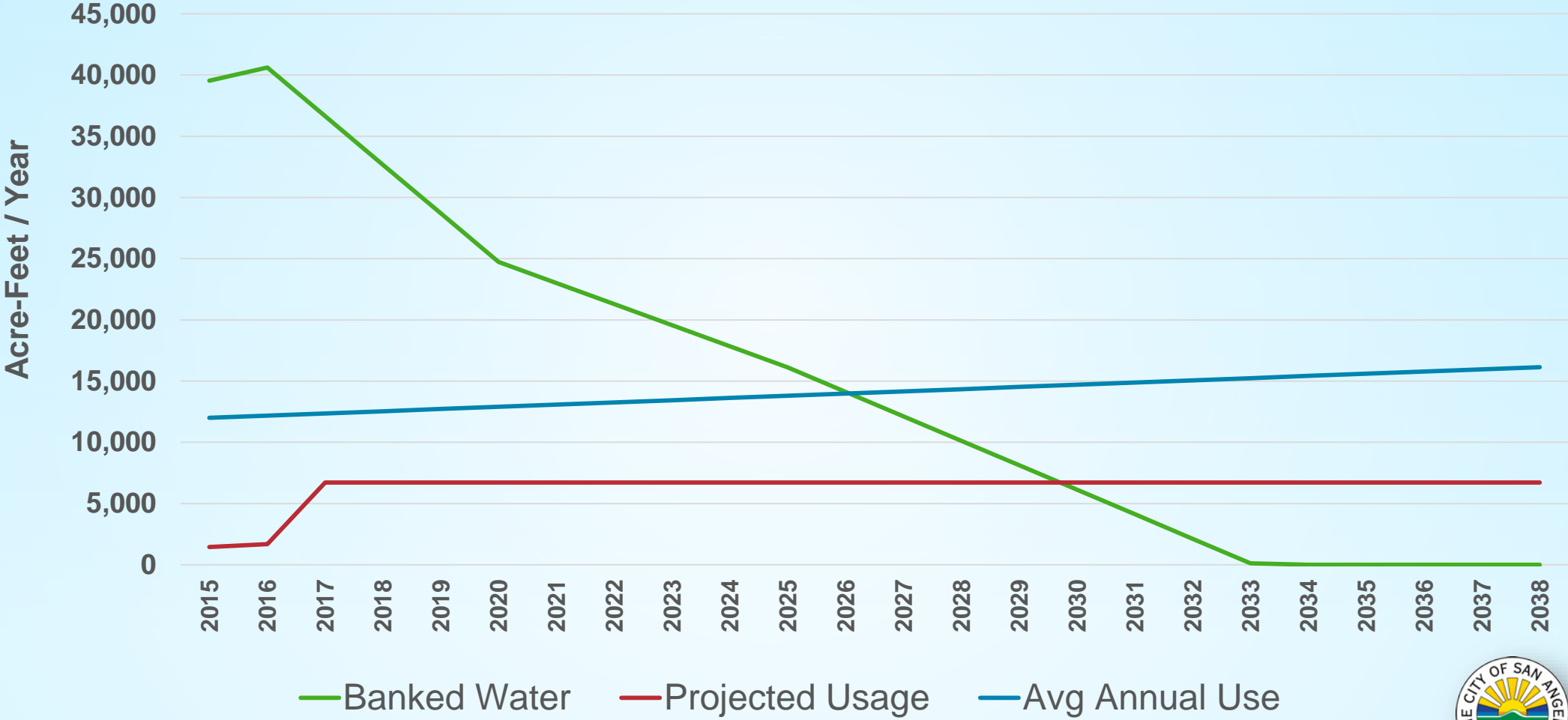


# Projected groundwater production





# Hickory / reuse scenario



# Red Arroyo off-channel reservoir

S

- Captures stormwater in major rain events

W

- Requires rainfall

O

- SWIFT funding

T

- Quality / treatability

\$

- Basin cost – TBD
- Advanced treatment - \$50-\$75 M



# Direct Potable Reuse

S

- Drought resistant source

W

- Public perception

O

- Plant improvements / SWIFT funding

T

- None known

\$

- Estimated cost - \$136 M





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