Parker Water and Sanitation District – Water Reuse

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Presentation Overview

- Introduction to Parker Water and Sanitation District (PWSD)
- Why is Reuse Important?
- PWSD’s Reuse System Through Time
- Rueter-Hess Reservoir’s Impact on Reuse
- Looking Forward
SERVICE
BOUNDARIES
1962 PWSD is formed
1973 – Serving 400 single-family equivalent (SFE) taps.
1985 – Serving 1,200 SFE taps.
1985 - Work begins on identifying a reservoir site.
1988 – Advanced Wastewater Treatment (AWT) plant constructed
1992 – Obtains 1st augmentation plan allowing use of alluvial wells
• 1999 – EIS Permitting on Rueter-Hess Reservoir begins and continues until 2008
• 2004 - Second AWT plant constructed
• 2012 – Rueter-Hess Reservoir completed.
• 2012 – Water Treatment Plant construction begins.
MAXIMIZING REUSE

RESIDENTIAL CONSUMPTIVE USE

IN-HOUSE: 0.25 ac-ft/yr x 0.1 = 0.025
OUTDOOR: 0.25 ac-ft/yr x 0.85 = 0.213

0.238 (48%)
Historic Water Reuse

Only using about 25% due to water quality and timing of demands.

Volume equivalent to return flow pumped from shallow well.

Return flow to stream.

Deep bedrock well.

Distribution system.

Wastewater flow.

Wastewater treatment plant.
ACHIEVE NEARLY 100% WITH THIS SYSTEM

WATER REUSE WITH RUETER-HESS
WATER STORAGE

- SUPPLEMENT DIRECT FLOW, AUGMENTATION, AND EXCHANGE RIGHTS
- RE-TIMES WATER FROM FLOW AVAILABILITY TO DEMANDS
- EFFICIENT WATER MANAGEMENT TOOL
• Local cooperation to better manage the Cherry Creek Basin

• Other Reusable Water sources
  • WISE Project
  • Parker Farms
FULL REUSE WILL LESSEN CHERRY CREEK FLOWS

WATER MANAGEMENT WILL CHANGE TIMING OF FLOWS (LESS PEAKS, MORE LIVE STREAM)

WATER LEVELS MAINTAINED AT CHERRY CREEK RESERVOIR (THROUGH UCCWA/CCAMP)

LESS FLOW THROUGH AT CHERRY CREEK RESERVOIR
HOW WISE WORKS

- 2 yrs with no delivery
- 90% in non-peak times
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