



2016 Storage Facility Inventory

AWBA Quarterly Meeting September 29, 2016

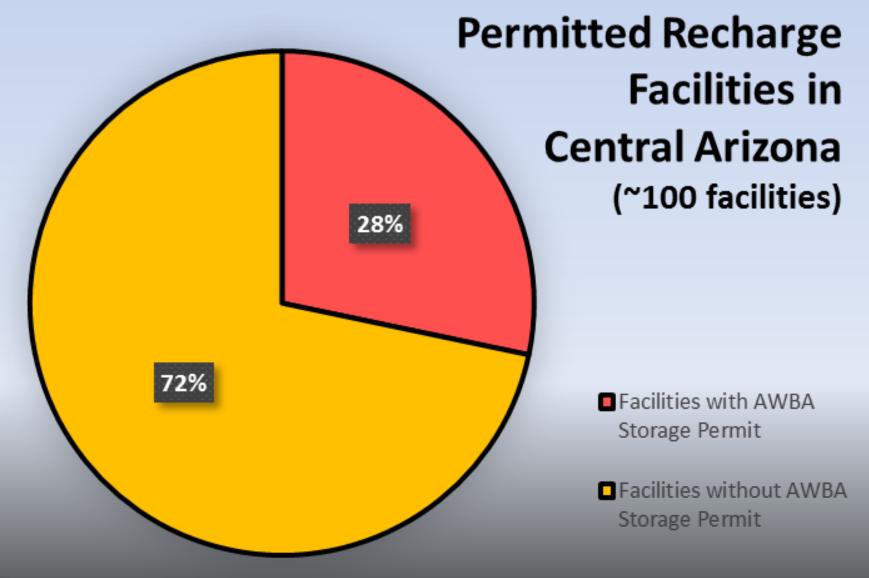
Presented by Terri Sue C. Rossi, Technical Administrator



Purpose of Storage Inventory

- Sufficient capacity to meet AWBA storage needs for ten years
- First one in 1997
- Updated in 2002, 2005 and 2011
- Used for interstate banking
- Supports AOP and Ten-Year Plan



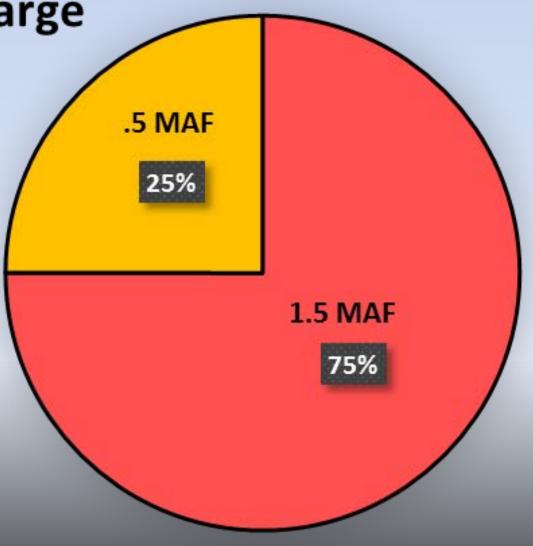




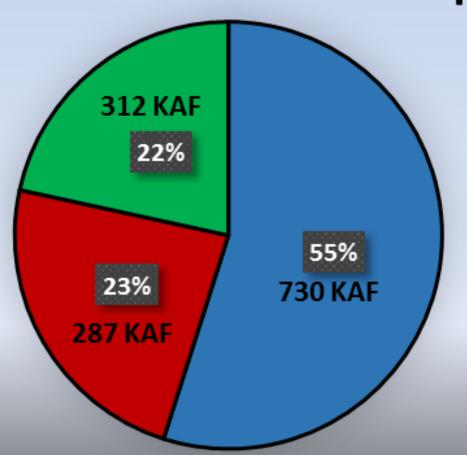
Permitted Recharge Capacity in Central Arizona (~2 MAF)

■ Facility Capacity with AWBA Storage Permit

■ Facility Capacity with no AWBA Storage Permit



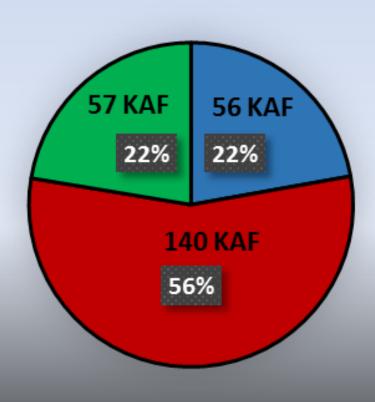




Permitted Capacity by AMA - 1.3 MAF

- Phoenix AMA
- Pinal AMA
- Tucson AMA

AWBA Water Storage Availability by AMA - 253 KAF



- Phoenix AMA
- Pinal AMA
- Tucson AMA

If normal conditions prevail...

| | | Statutory Firming Pool ³ | | | | | | | |
|-------|-------------------------|-------------------------------------|---------------|--|--|--|--|--|--|
| | Total CAP | Federal & | | | | | | | |
| Year | Deliveries ¹ | CAGRD RR | AWBA | | | | | | |
| 2017 | 1,436,300 | 11,100 | 66,300 | | | | | | |
| 2018 | 1,555,400 | 14,000 | 83,900 | | | | | | |
| 2019 | 1,554,500 | 12,100 | 72,300 | | | | | | |
| 2020 | 1,553,500 | 13,700 | 82,100 | | | | | | |
| 2021 | 1,552,300 | 11,700 | 70,400 | | | | | | |
| 2022 | 1,551,200 | 9,800 | 58,600 | | | | | | |
| 2023 | 1,550,100 | 8,000 | 47,800 | | | | | | |
| 2024 | 1,549,000 | 16,900 | 101,400 | | | | | | |
| 2025 | 1,547,900 | 13,700 | 82,100 | | | | | | |
| 2026 | 1,546,900 | 9,900 | <u>59,100</u> | | | | | | |
| Total | | 120,900 | 724,000 | | | | | | |

What we planned for last July...

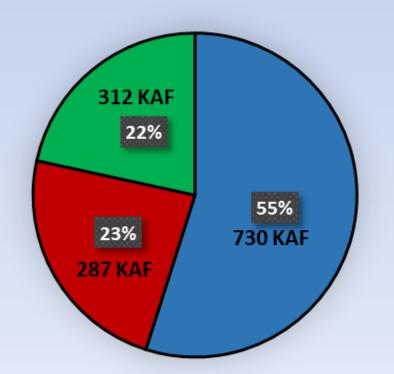
| | | Statutory Fi | tory Firming Pool ³ | | | | | | |
|-------|-------------------------|--------------|--------------------------------|--|--|--|--|--|--|
| | Total CAP | Federal & | | | | | | | |
| Year | Deliveries ¹ | CAGRD RR | AWBA | | | | | | |
| 2017 | 1,436,300 | 11,100 | 66,300 | | | | | | |
| 2018 | 1,555,400 | 14,000 | 0 | | | | | | |
| 2019 | 1,554,500 | 12,100 | 0 | | | | | | |
| 2020 | 1,553,500 | 13,700 | 0 | | | | | | |
| 2021 | 1,552,300 | 11,700 | 0 | | | | | | |
| 2022 | 1,551,200 | 9,800 | 0 | | | | | | |
| 2023 | 1,550,100 | 8,000 | 0 | | | | | | |
| 2024 | 1,549,000 | 16,900 | 0 | | | | | | |
| 2025 | 1,547,900 | 13,700 | 0 | | | | | | |
| 2026 | 1,546,900 | <u>9,900</u> | <u>0</u> | | | | | | |
| Total | | 120,900 | 66,300 | | | | | | |

What we think now...

| Table 3 Water Delivery Schedule (Acre-Feet) Calendar Year 2017 | | | | | | | | | | | | | | | |
|--|---------------------------|-----------------|-------------|--------------|---------------|-------------|------------|------------|-------------|--------|------------|------------|-------|-------|----------------|
| A | WBA-Storage Sites | (AF) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| PHOENIX AM | A : | | | | | | | | | | | | | | |
| | AGUA FRIA | 100,000 | 0 | 0 | 0 | 0 | 750 | 750 | 0 | 0 | 250 | 750 | 0 | 0 | 2,500 |
| USF | GRUSP | 93,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | HIEROGLYPHIC MTN | 35,000 | 0 | 0 | 0 | 0 | 0 | 500 | 500 | 500 | 500 | 500 | 0 | 0 | 2,500 |
| - | SUPERSTITION MTNS | 35,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TONOPAH DESERT | 150,00 | | | | | | _ • | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 7 0′ | 17 F | ากลโท | ot (| Ope | ratio | nn | | | | | | 5,000 |
| GSF | NEW MAGMA | 54,00 | | -, . | | U. (| PC | · aci | J 11 | 0 | 0 | 0 | 0 | 0 | 0 |
| | QUEEN CREEK | 28,00 | | | | | _ | • | _ | 230 | 2,000 | 1,000 | 500 | 500 | 5,230 5,230 |
| | | _ | | | | | Acr | e-fe | et | | | | | | |
| AMA TOTAL I | INTRASTATE | | | | | | | | | 730 | 2,750 | 2,250 | 500 | 500 | 10,230 |
| PINAL AMA: | | | | | | _ | | 40 | 220 | | | | | | |
| L. | CAIDD | 110,00 55,00 | Phoei | nix / | AIVI | 4 | | -10. | ,230 | 300 | 0 | 0 | 0 | 0 | 3,800 |
| GSF | HOHOKAM MSIDD | 120.00 | | | | - | | , | , | 200 | 100 | 0 50 | 0 | 0 | 3,800 3,800 |
| | MSIDD | 120,00 | D: | 1 | | ^ | | 11 | 400 | | 100 | 50 | U | U | 11,400 |
| | | | PII | nai <i>i</i> | AM | 4 | | LL. | ,400 | 300 | 400 | | | | |
| AMA TOTAL I | | | | | | | | • | | 300 | 100 | 50 | 0 | 0 | 11,400 |
| TUCSON AMA | - | | T | | A | ^ | | | α | | | | | | |
| | AVRA VALLEY | 11,00 | Tucs | on <i>i</i> | AIVI <i>I</i> | 4 | | О, | ,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| USF | PIMA MINE ROAD | 50,00 30.00 | | | | _ | | | | 000 | 1,000 | 500 | 500 | 1.000 | 5.000 |
| š | CAVSARP | 100.00 | | | | _ | | | | | 0 | 0 | 0 | 0 | 0,000 |
| | SAVSARP | 60.00 | | - | Total | | 27 | | ,630 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5717-5711 | 50,00 | | | . 000 | •• | | ~ / , | ,050 | | | | | | 5.000 |
| | CORTARO-MARANA ID | 20,000 | 250 | 0 | 250 | 0 | 250 | 0 | 0 | 250 | 0 | 0 | 0 | 0 | 1,000 |
| SSF | KAI FARMS (Red Rock) | 11,231 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | BKW Farms | 14,316 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | 1,000 |
| AMA TOTAL I | INTRASTATE | | 250 | 0 | 250 | 0 | 250 | 0 | 1,000 | 1,250 | 1,000 | 500 | 500 | 1,000 | 6,000 |
| TOTAL INTRA | ACTATE | | 250 | 200 | 050 | 000 | 4.050 | 4.750 | 4.000 | 40.700 | 2.050 | 2 200 | 4.000 | 4 500 | 27.020 |
| TOTAL INTER | | | 350 | 200 | 950 0 | 800 | 1,850 0 | 1,750 0 | 1,800 | 10,780 | 3,850 0 | 2,800 0 | 1,000 | 1,500 | 27,630 |
| TOTAL RECH | | | 350 | 200 | 950 | 800 | 1.850 | 1.750 | 1.800 | 10,780 | 3.850 | 2.800 | 1.000 | 1.500 | 27,630 |
| | VERY (Non-Storage): | | 330 | 200 | 930 | 000 | 1,000 | 1,750 | 1,000 | 10,700 | 3,650 | 2,000 | 1,000 | 1,500 | 21,030 |
| DIRECT DELI | Southside Replenishment B | ank | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Southside Replenishment O | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL DIRECT | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL DELIV | /ERIES | | 350 | 200 | 950 | 800 | 1,850 | 1,750 | 1,800 | 10,780 | 3,850 | 2,800 | 1,000 | 1,500 | 27,630 |



The big analysis...



- Phoenix AMA
- Pinal AMA
- Tucson AMA

2017 Plan of Operation
Acre-feet
Phoenix AMA 10,230
Pinal AMA 11,400
Tucson AMA 6,000
Total 27,630

Available Capacity – Demand = +/-X

If +X, then unremarkable

If –X, then do something



Points of Interest

- Potential to expand capacity available to AWBA with current partners
- Potential opportunities for effluent partnerships
- Duplicative of storage analyses conducted in APO and Ten-Year Plan







Storage Facility Inventory

AWBA Quarterly Meeting September 29, 2016

Presented by Terri Sue C. Rossi, Technical Administrator