YOUR WATER. YOUR FUTURE.

MARCUS SHAPIRO

Colorado River Basin Data and Modeling
Second Roundtable – May 28, 2020
Water Delivery Reports

• Scheduled & delivered water volumes in database
• Reports distributed to internal & external stakeholders
• What’s available on CAP website for external stakeholders?
  • Report by Contract Type
  • Report by Recharge Facility
• ADWR uses data to validate year end reporting
CAP Water Deliveries

How to Read a Delivery Report

- Delivery by Contract Type
- Delivery by Recharge Facility

CAP Water Delivery Reports can provide answers to several important questions

1. Can I see how much water is scheduled for delivery from the system?
2. Can I see how much water has been delivered from the system?
3. Can I see how much water was stored and where?
4. What is the difference between Water User and Partner?
5. Can I get more information?

ALL THINGS ACRONYM

Click to see glossary

Water Delivery Report History – The Story of Reports

CAP has always measured the deliveries that it makes along the canal system from the first delivery in May 1985. The delivery reports serve as the vehicle for corroborating that the water user’s billed volume was also delivered as requested. Over the years as more water users came online, more information was added about the various locations of deliveries, cost per acre foot for various programs, and recharge. The format of reports has evolved by the requests of CAP’s delivery partners, but they serve the same purpose for each water user.
## 2020 Year to Date Deliveries by Contract Type

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# Central Arizona Project

## 2020 Year to Date Deliveries by Recharge Facility

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|         |       | Chandler       | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 5,000     | 5,000     |
|         |       | Eloy           | 200 | 200 | 200 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 600       | 2,120     | 1,520     |
|         |       | Gilbert        | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 7,000     | 7,000     |
|         |       | GRIC           | 80  | 503 | 1,013 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1,596     | 8,000     | 6,404     |
|         |       | Phoenix        | 0   | 0   | 865 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 865       | 5,865     | 5,000     |
|         |       | **Total**      | 0   | 0   | 349 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 349       | 8,409     | 5,000     |
Data Collection and Sharing in the Active Management Areas

Kyle Miller
Planning & Data Manager
Overview

* AMA Data
* Data Sharing Strategies
* Next Steps
AMA Data
Goals of the Act

- Control severe groundwater depletion
- Provide the means for allocating Arizona's limited groundwater resources
- Improve Arizona’s groundwater supplies through conservation and development of additional water supplies
Regulatory Structure

- Registration of all wells
- Adequate Water Supply
- Community Water Systems Documentation
  - Expansion of irrigated acres is prohibited
  - Monitoring and Reporting
    - Assured Water Supply
    - Management Goals, Plans, & Conservation Programs
    - Withdrawal Fees
Active Management Areas (AMA) & Irrigation Non-Expansion Areas (INA)

Five AMAs
- Prescott AMA
- Phoenix AMA
- Pinal AMA
- Tucson AMA
- Santa Cruz AMA

Three INAs
- Joseph City INA
- Harquahala INA
- Douglas INA
AMA Annual Reports

* Non-exempt wells (>35 gpm) inside AMAs and INAs must meter well pumpage.
* Users subject to reporting requirements must submit Annual Water Withdrawal and Use Reports –
  ➢ Due March 31st each year
* Volume of groundwater pumped by well
* Report movement of water
  * Types and Volumes of Water Delivered/Received
  * Types and Volumes of Water Stored/Recovered
  * Generation/Discharge of Effluent
* May report types of end use
* Additional information related to conservation requirements or any other information the director deems necessary
ADWR Data Compilation

Statewide Water Use Estimates

Compiled AMA data is available at new.azwater.gov/ama/ama-data
Statewide Water Use information is available at www.arizonawaterfacts.com
Other Data

* ADWR Estimates
  * Tribal water use inside the AMAs
  * Exempt well water use inside the AMAs
* CAGRD Replenishment
* Bureau of Reclamation
  * Colorado River Diversions and Consumptive Use
  * Contributions to Lake Mead
* USGS
  * Water Use Estimates outside the AMAs
* US Census
* US Bureau of Economic Analysis
* ADWR Well Level Monitoring
Data Sharing Strategies
Statewide Water Use Estimates (2017)

http://www.arizonawaterfacts.com/water-your-facts
Live Queries

https://new.azwater.gov/
Data Dashboards
Drought in Arizona (2000-2020)

Drought Level Definitions: None = No Drought, D1 = Abnormally Dry, D2 = Moderate Drought, D3 = Severe Drought, D4 = Extreme Drought, D5 = Exceptional Drought

Occurrence of Each Drought Level

Average Yearly Drought Levels (%)

Weekly Drought Levels (sq. mi.)
Public Meetings

5th Management Plans Work Group

Governor’s Water Augmentation, Innovation and Conservation Council (GWAICCC)
Data Consultation
Arizona Water Blueprint
Arizona Water Blueprint

Phoenix, City of
ADEQ_ID: AZ0407025
RIGHT_TYPE: LARGE
COMMUNITY WATER SYSTEM
PCC: 91-000190.0000
NAME: Phoenix, City of
CWS NAME: CITY OF PHOENIX
STATUS: A
PROGRAM: ASSURED
ISSUED: 9/28/2010 5:00 PM
EXPIRATION: 12/30/2025 5:00 PM
TOTAL ANNUAL SUPPLY IN DESIGNATION (acres-feet): 510,257.89

Kyl Center for Water Policy
Morrison Institute

Assured/Adequate Designated Water Providers

PHOENIX AMA
Basin Name: PHOENIX AMA
Name Abbreviation: PHX
Basin Name: PHOENIX AMA
Volume Measured: Acro-feet (AF)
Average Natural Recharge: 134.296.74
Total Demand (1985): 2,233,571
Industrial Demand (1985): 38,667
Agricultural Demand (1985): 1,255,633
Indian Demand (1985): 187,698
Other Demand (1985): 58,071
Total Demand (1986): 2,229,054
Municipal Demand (1986): 604,180

AZU
Kyl Center for Water Policy
at Morrison Institute
Data Consultation

The Arizona We Want Progress Meters

*The Arizona We Want* Progress Meters measure our progress in building a bright future for our state

Efficiency of Water Infrastructure

Per Capita Water Use

**AMOUNT OF WATER LOSS**

Arizona Department of Water Resources. Regulatory standard is 10% for large and 15% loss for small systems (>250 acre-feet). This L&U is aggregated on an AMA scale and is calculated to balance variation between supply and demand. It includes some metered connections and is calculated differently than the regulatory L&U for each provider. (2018)

**AVERAGE AMA RESIDENTIAL GPCD**

Arizona Department of Water Resources. Water use per sector, divided by population in geography (GPCD). (2018)
Next Steps

* Improve Data Quality
  * Online Annual Reporting

* New Reporting Requirements
  * Active acres
  * Turfed acreage

* Compliance

* Learning from you
Questions?

Kyle Miller
kmiller@azwater.gov

AMA Data:
https://new.azwater.gov/ama/ama-data