

Water Resources in the Cobre Valley Watershed



Cobre Valley Small Town Forum Meeting
ADWR, September 06, 2018

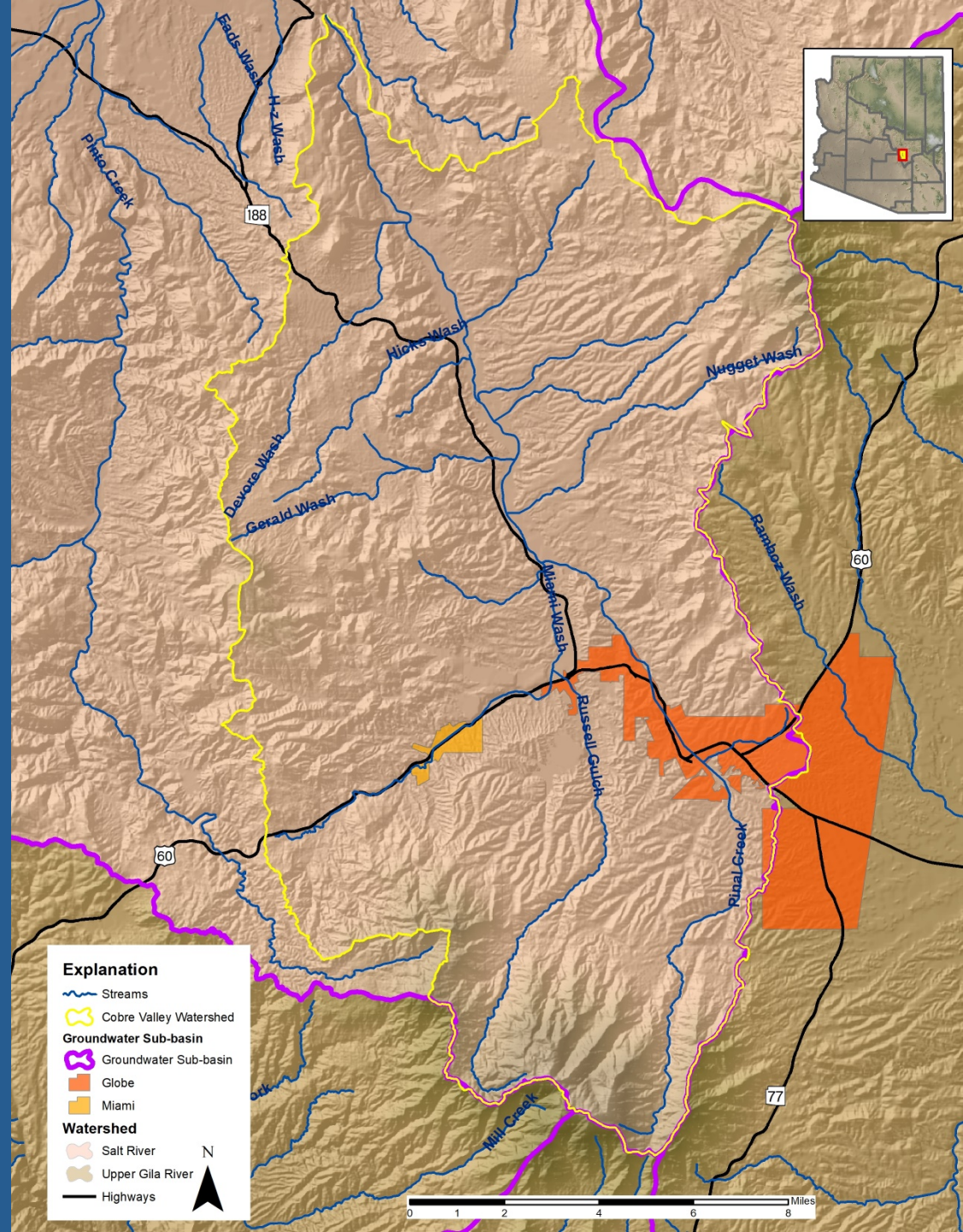
Brian D. Conway, Hydrologist



Protecting Arizona's Water Supplies For
Its Next Century

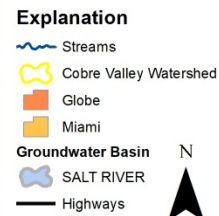
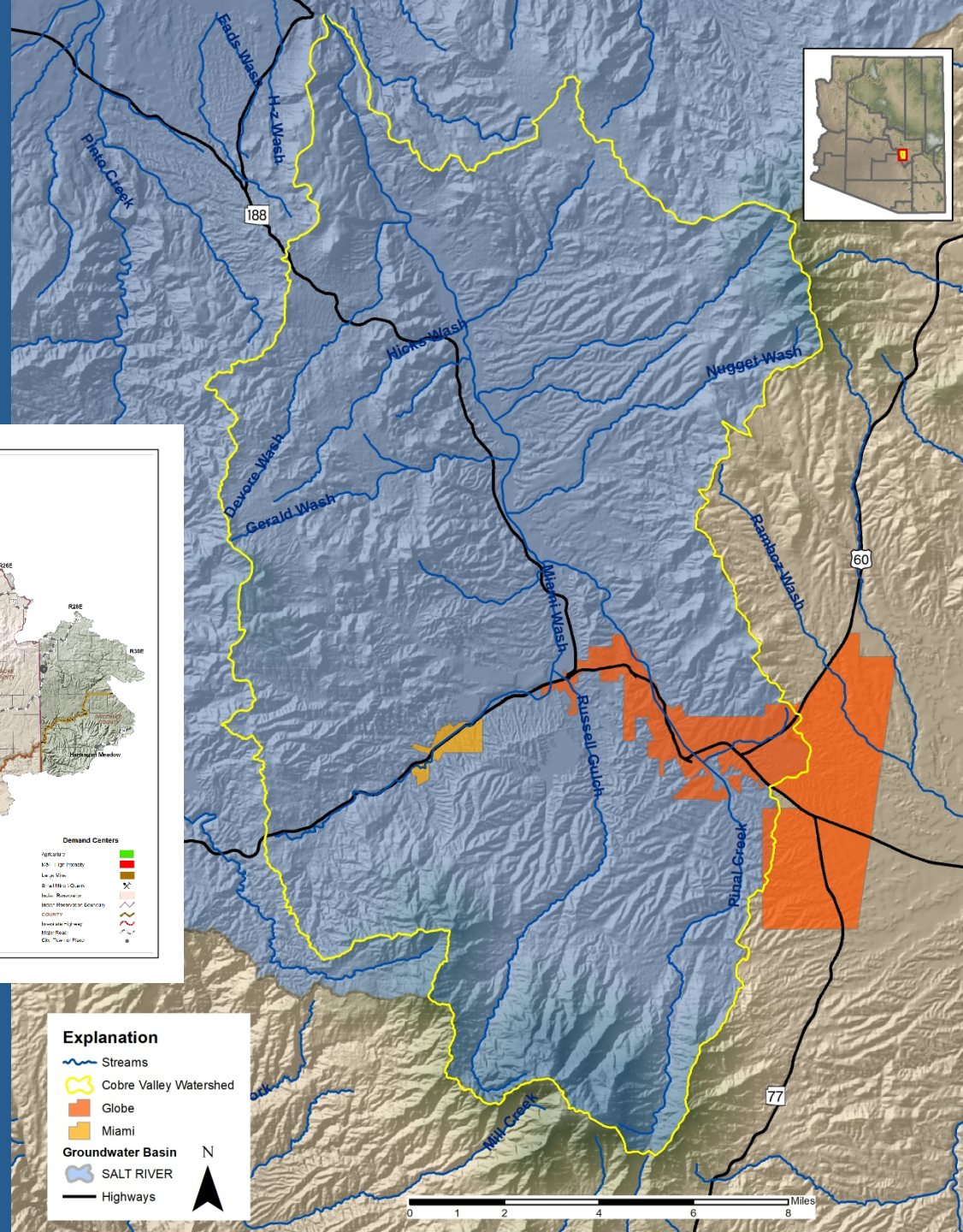
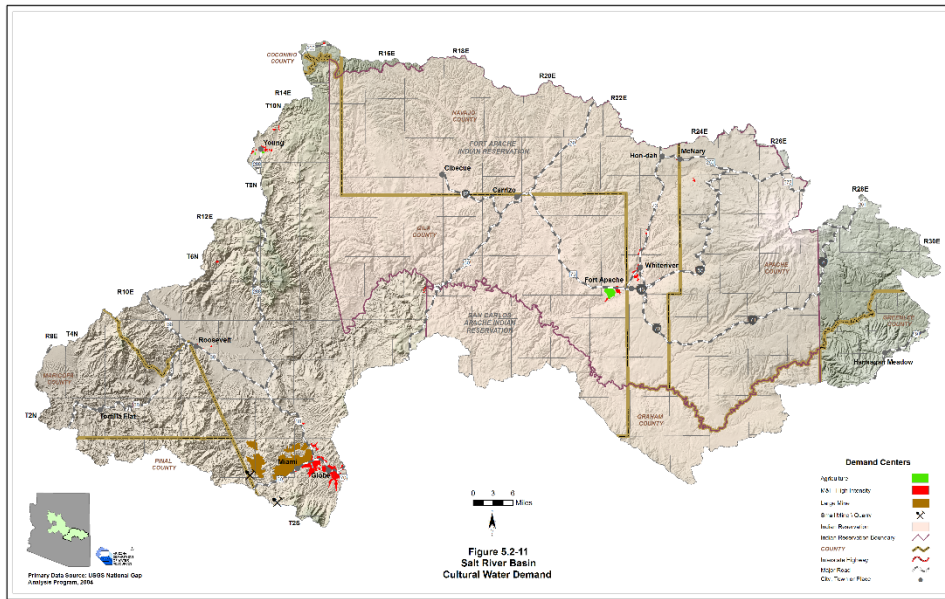
Cobre Valley Watershed

- Located in the Salt River Watershed



Cobre Valley Watershed

- Located in the Salt River Lakes Sub-basin (Salt River Groundwater Basin)



Cobre Valley Watershed

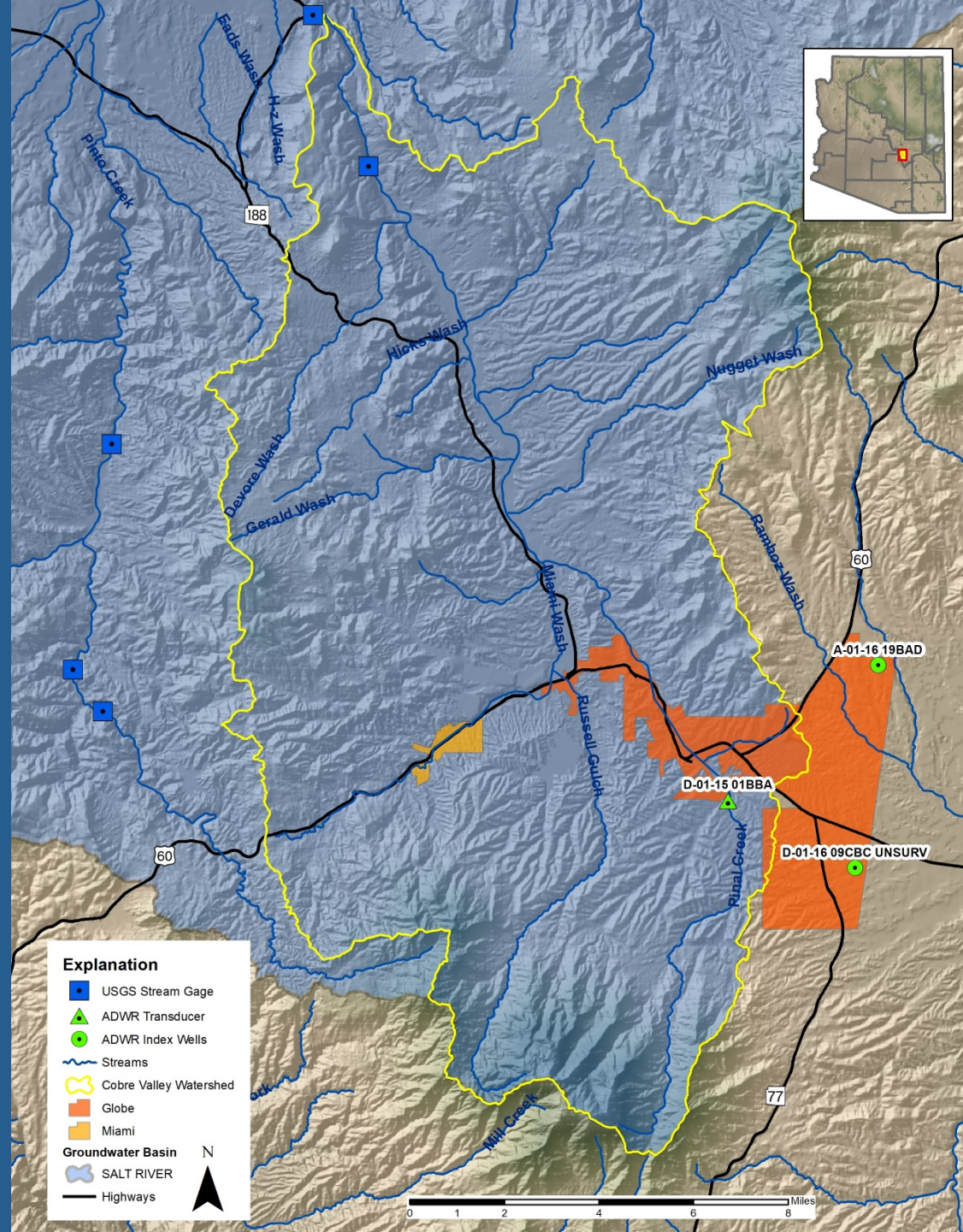
- Local aquifer is composed of semi-consolidated to consolidated basin-fill sediments and is up to 4,000 feet thick
- A limestone aquifer also supplies water in the Globe-Miami area
- Well-yields are generally low near Globe and higher to the north of Globe
- Recharge occurs primarily along the mountain fronts and stream infiltration

ARIZONA WATER ATLAS VOLUME 5 CENTRAL HIGHLANDS PLANNING AREA



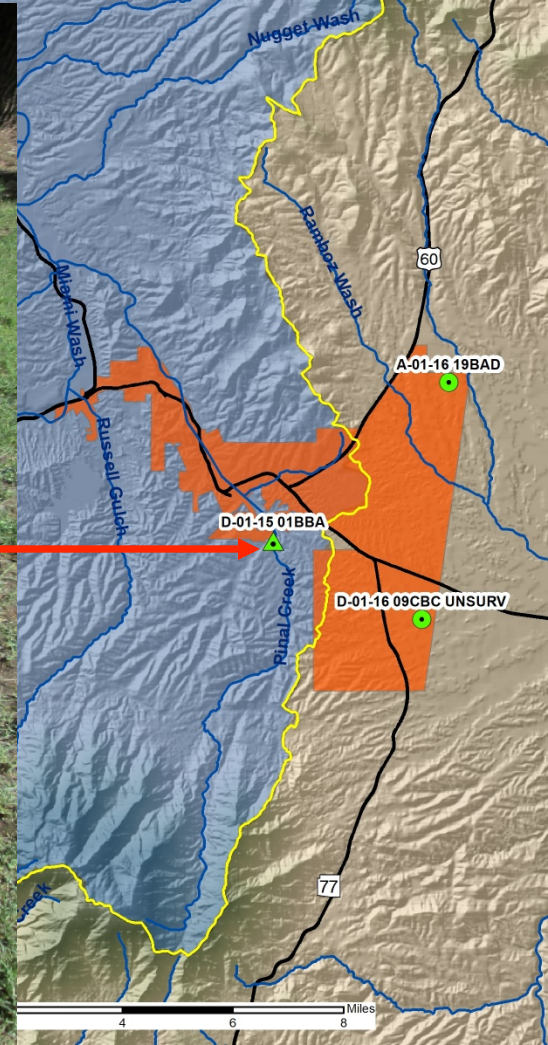
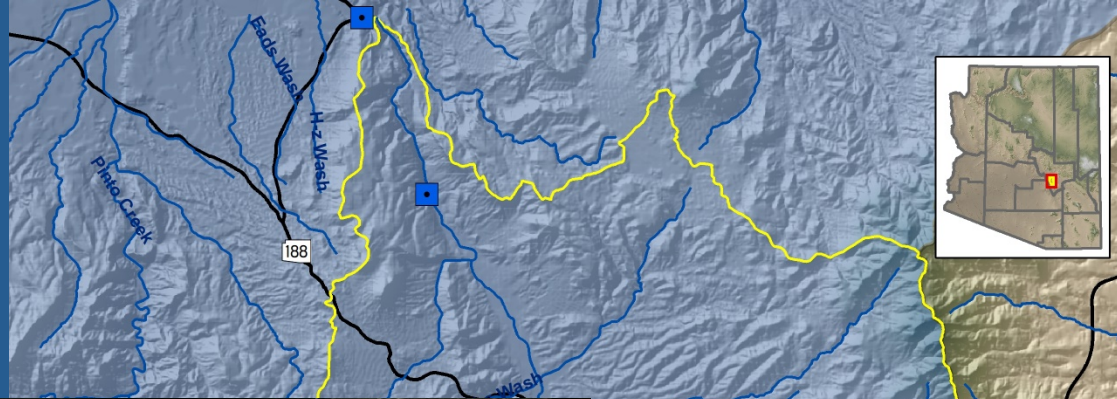
ADWR Groundwater Monitoring

- Automated Transducer
- Index Wells



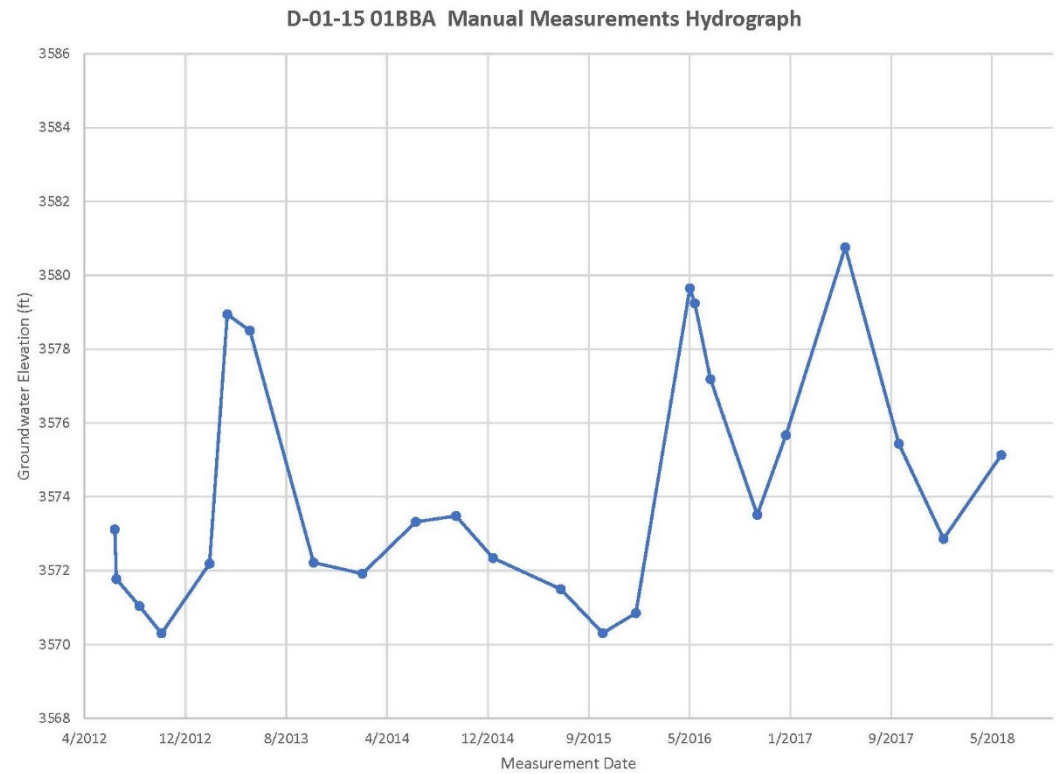
ADWR Groundwater Monitoring

- Automated Transducer —
Globe Ranger District Office



ADWR Groundwater Monitoring

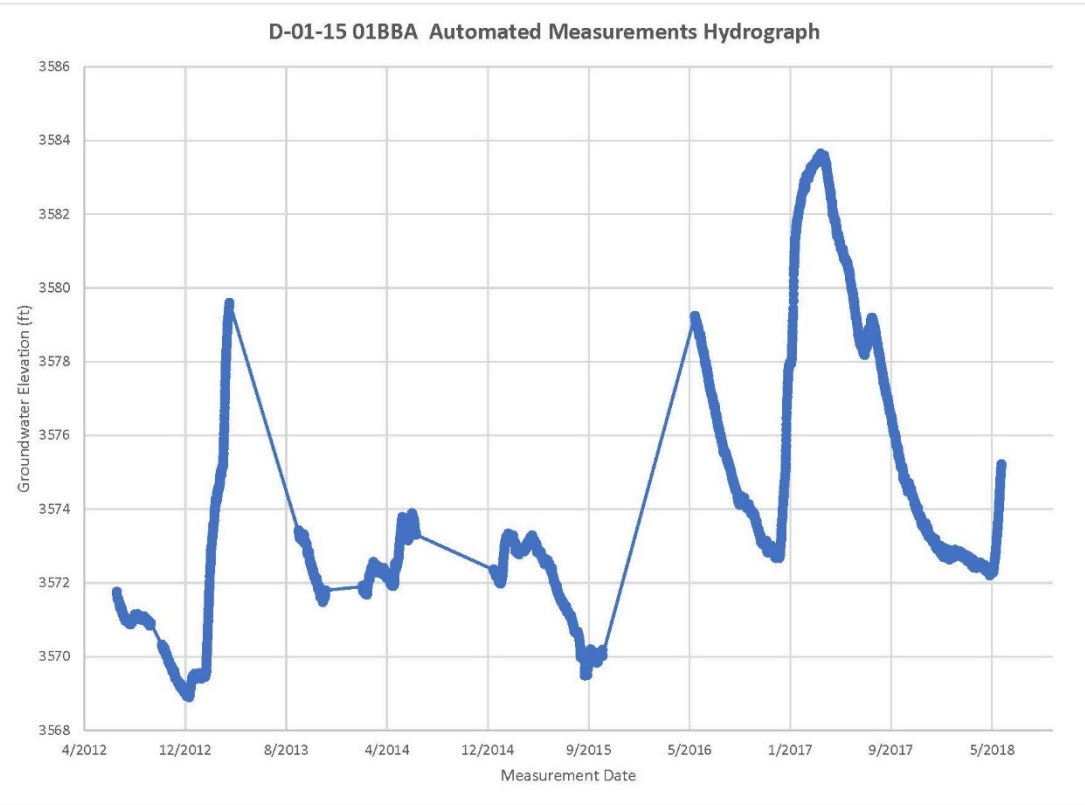
- Automated Transducer – Globe Ranger District Office
- Groundwater responds to Pinal Creek flows



Pinal Creek Flooding

ADWR Groundwater Monitoring

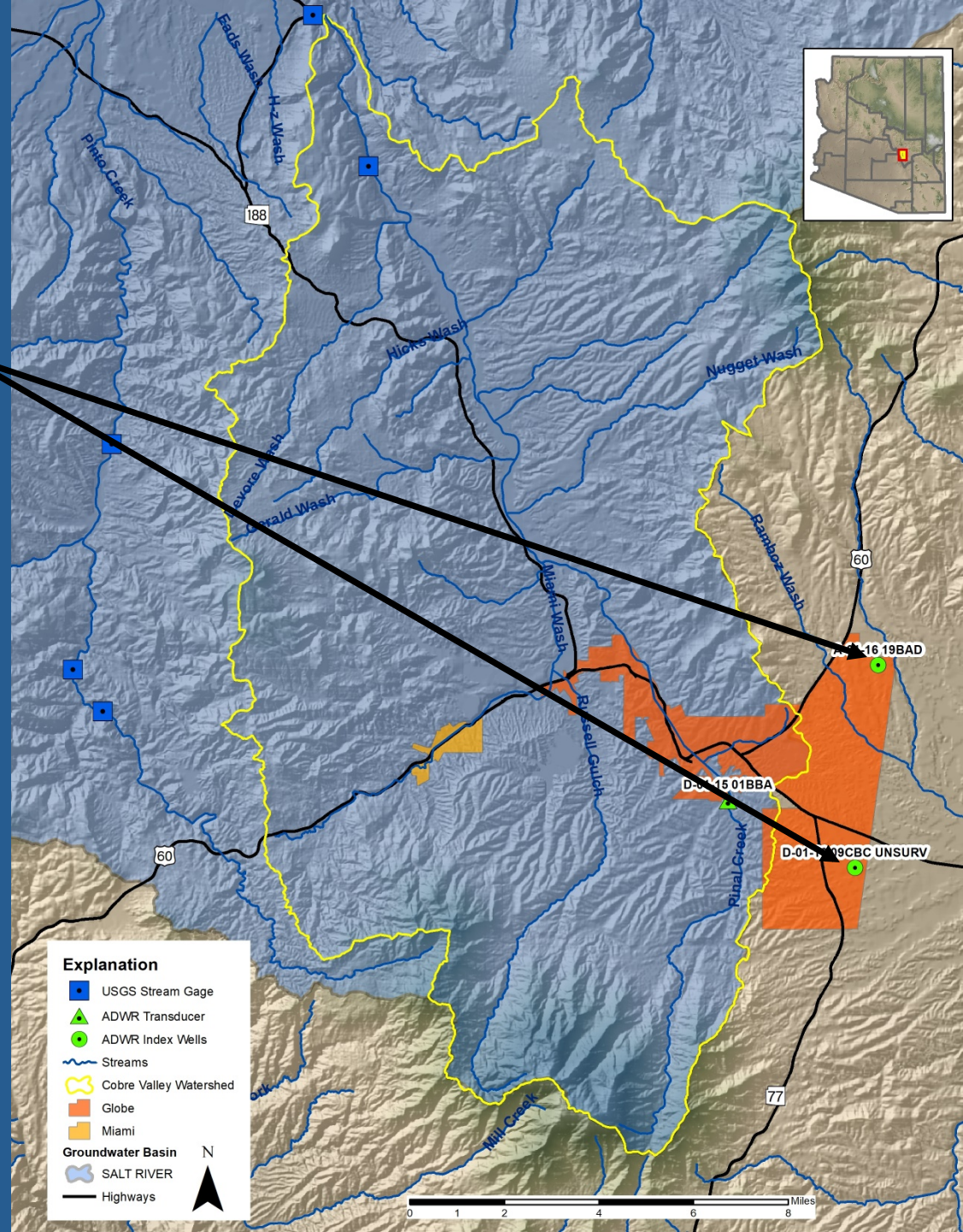
- Automated Transducer — Globe Ranger District Office
- Groundwater responds to Pinal Creek flows
- Hydrograph of automated well site responds to Pinal Creek flows



Pinal Creek Flooding

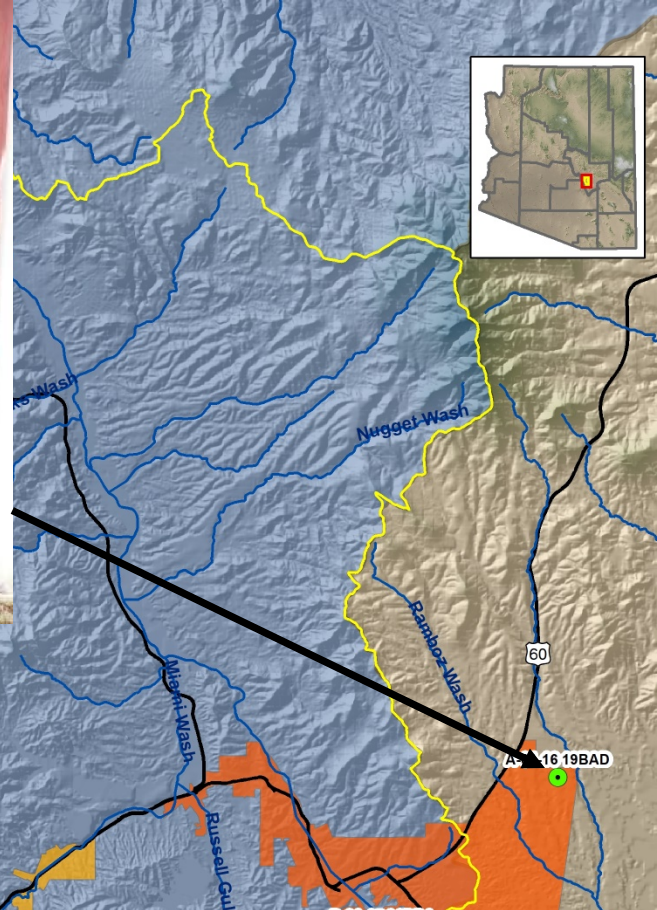
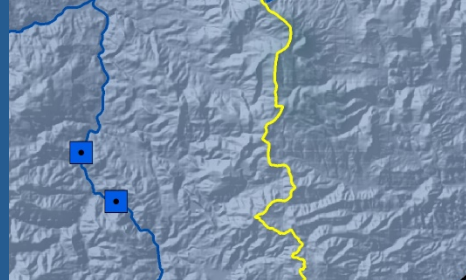
ADWR Groundwater Monitoring

- Two Index Wells measured annually supply water to Globe in Cobre Valley
- Wells are located in the Cutter Well Field, San Carlos Valley Sub-basin of the Safford Groundwater Basin in adjacent Upper Gila Watershed



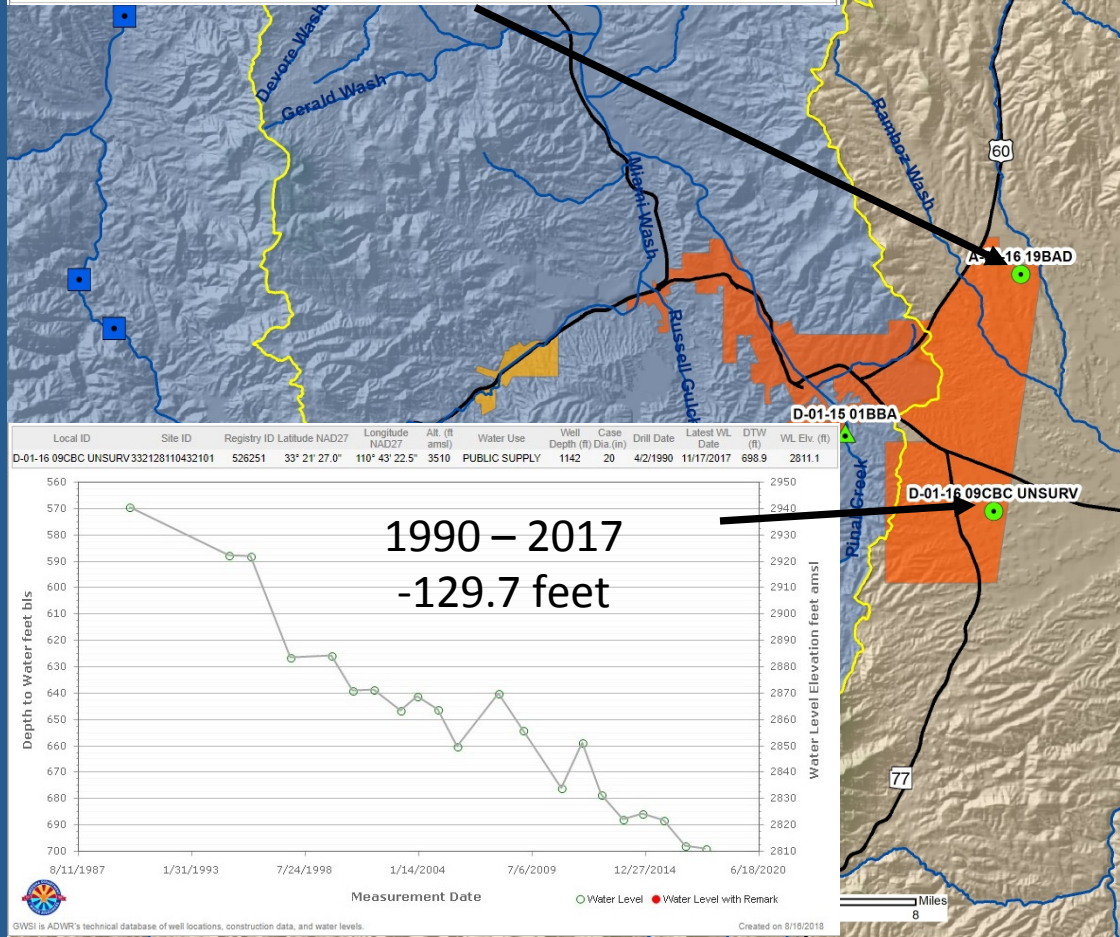
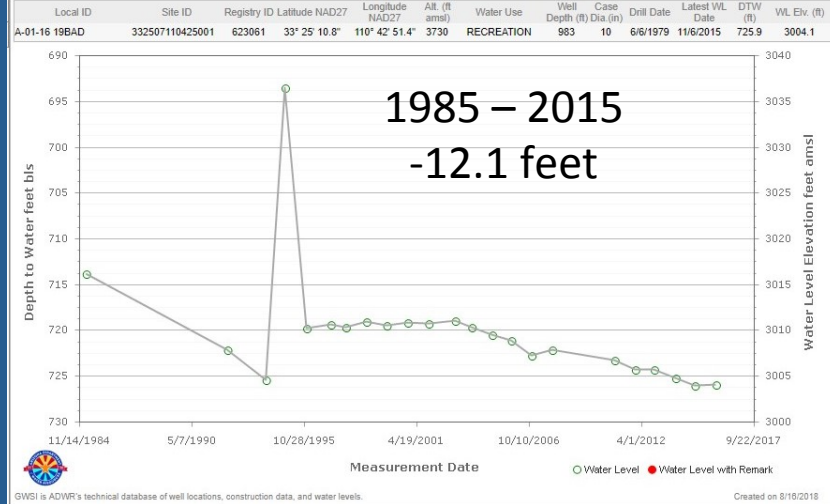
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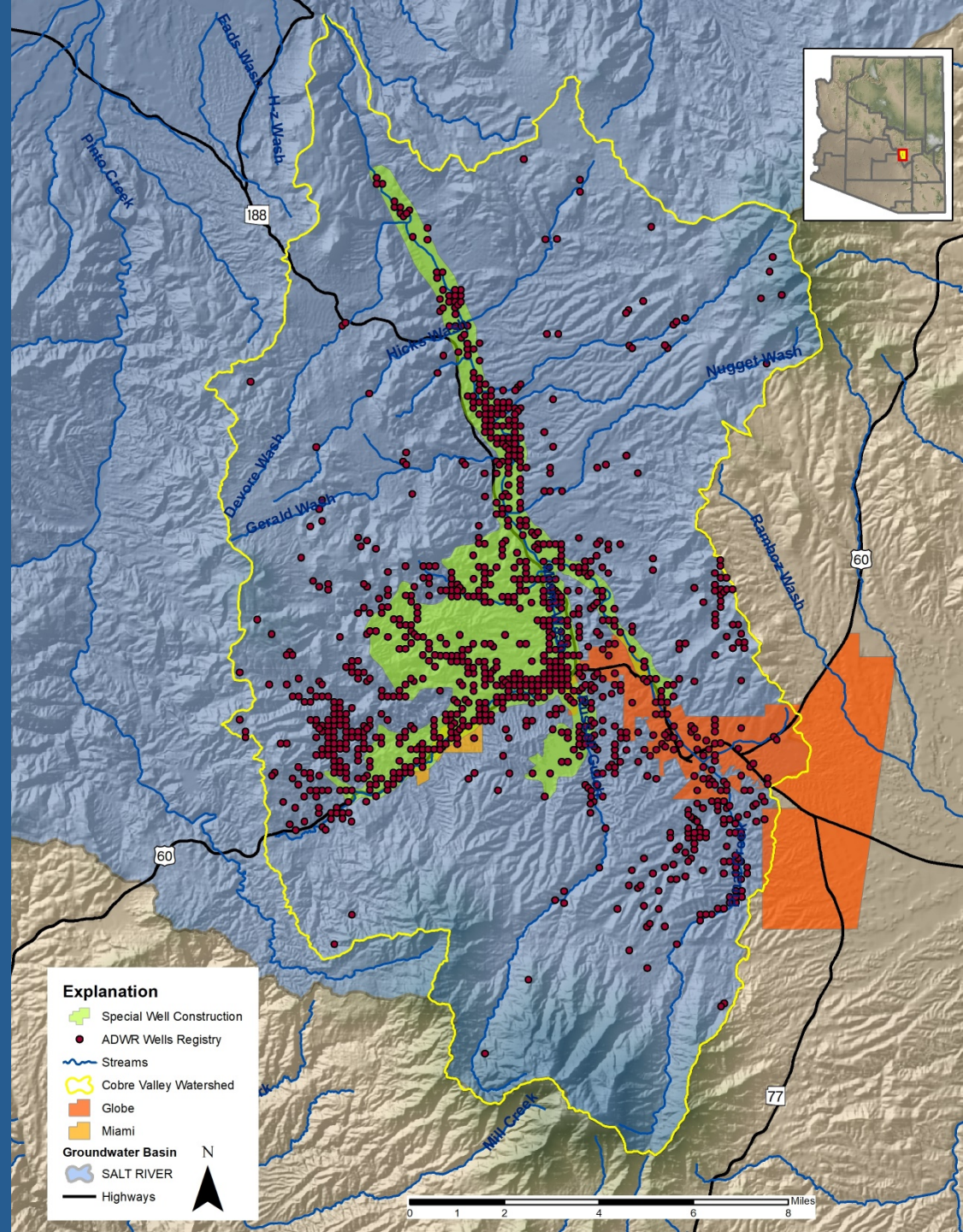
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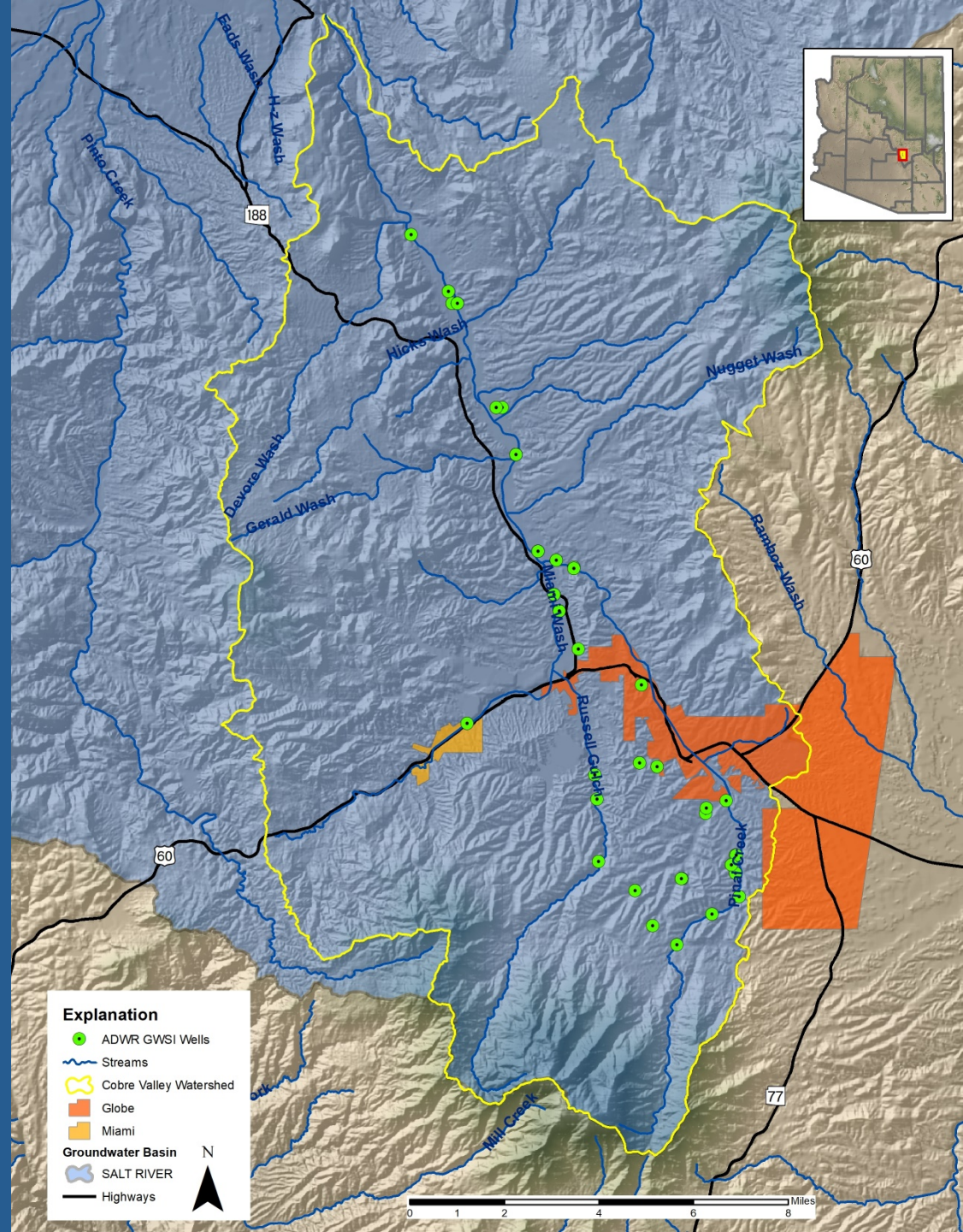
Groundwater Wells

- 2,484 Registered Wells
- Special well construction standards for Pinal Creek WQARF Area



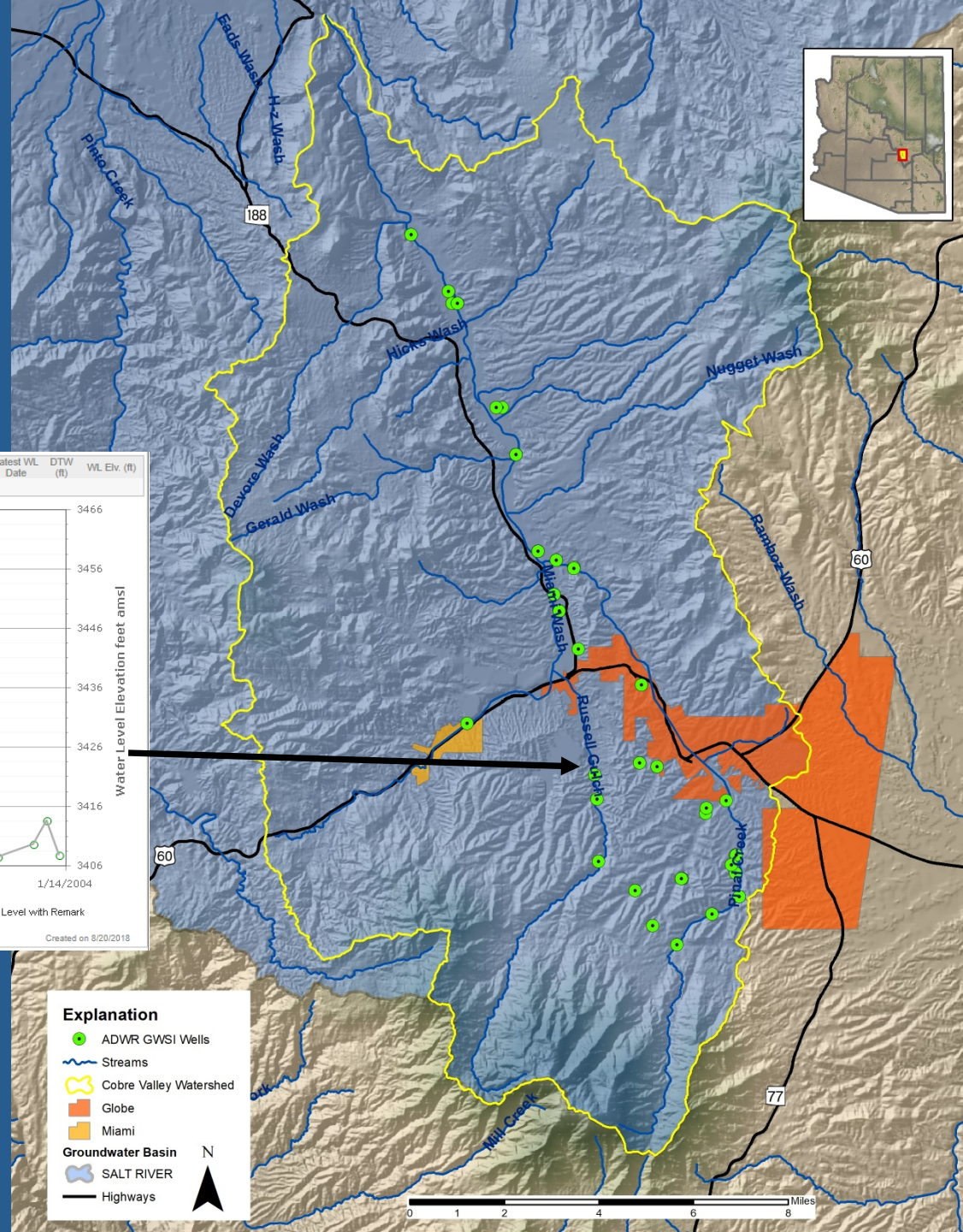
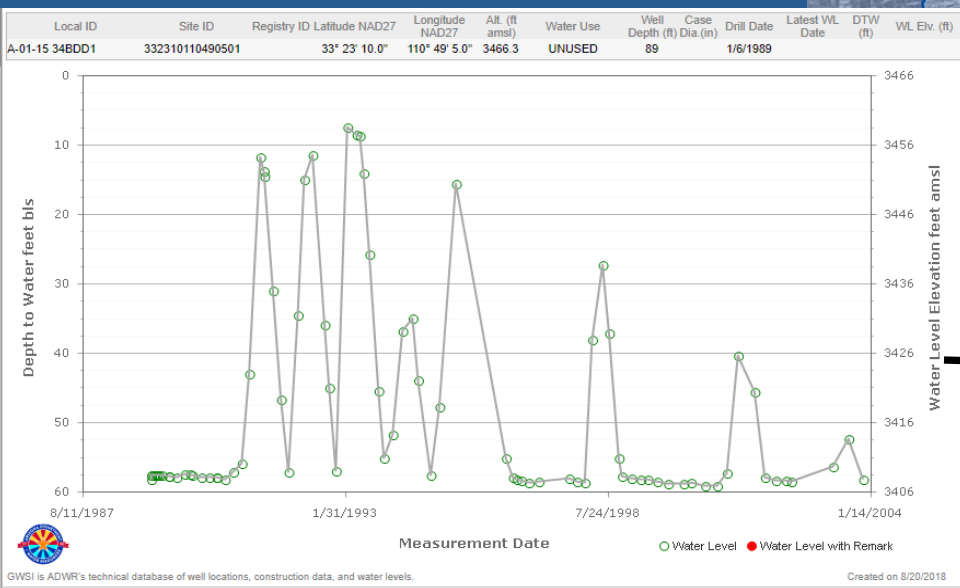
ADWR Groundwater Site Inventory (GWSI) Wells

- 55 GWSI wells with measurements
- 3,355 measurements taken between January 1944 and November 2003
- Wells water use:
 - 2 Undetermined
 - 13 Domestic
 - 1 Irrigation
 - 1 Industrial
 - 3 Recreation
 - 1 Stock
 - 34 Unused



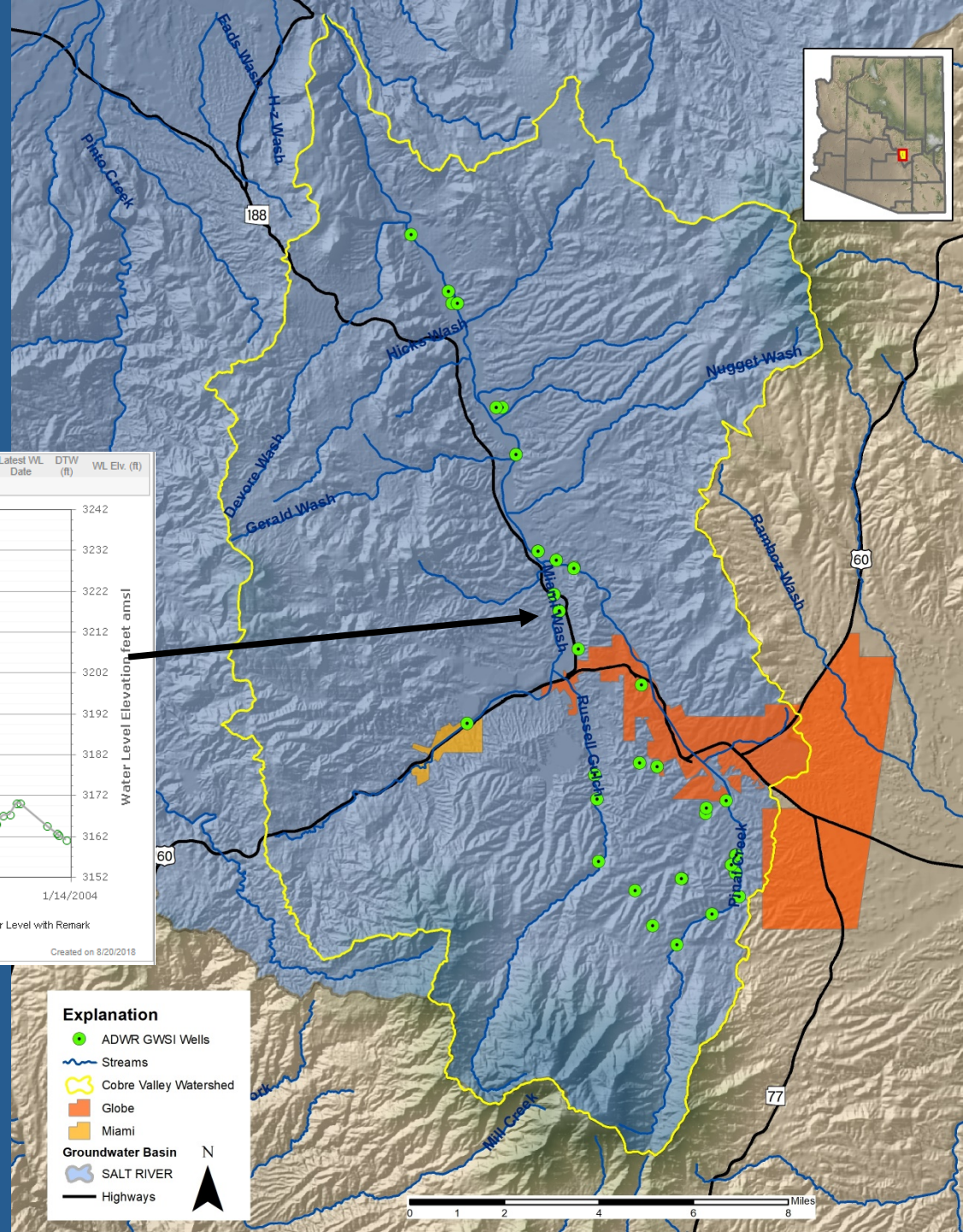
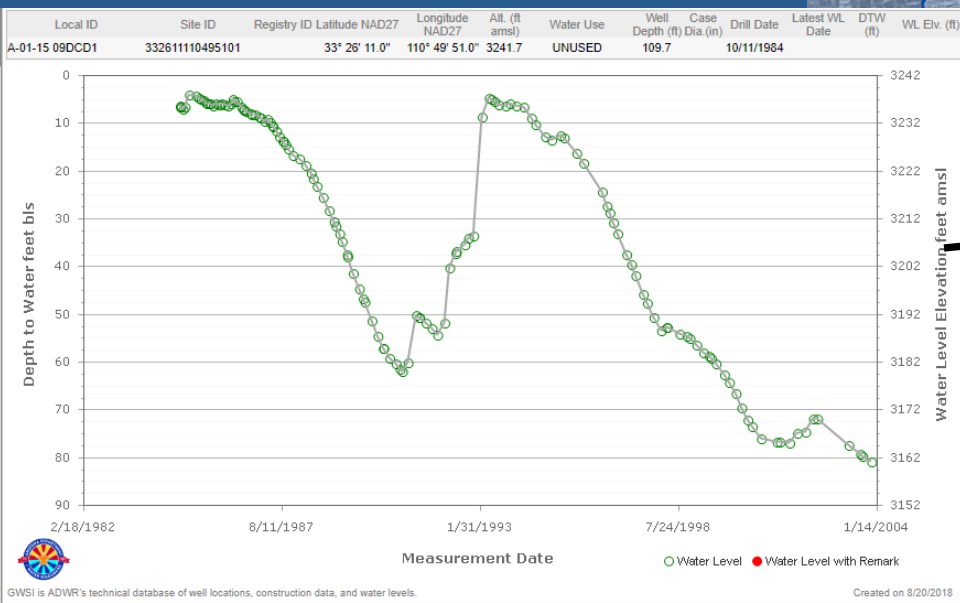
ADWR Groundwater Site Inventory (GWSI) Wells

• A-01-15 34BDD1 Hydrograph



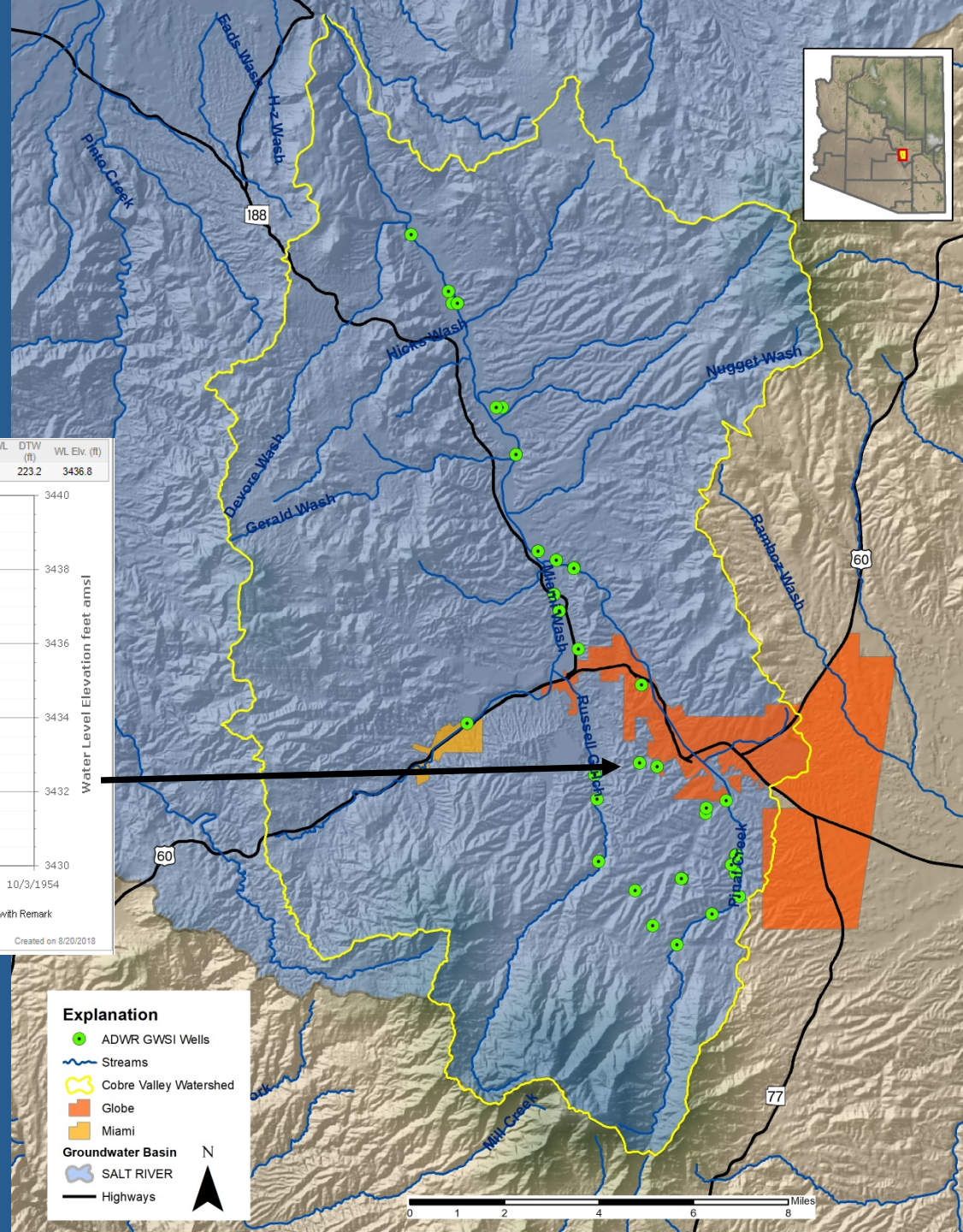
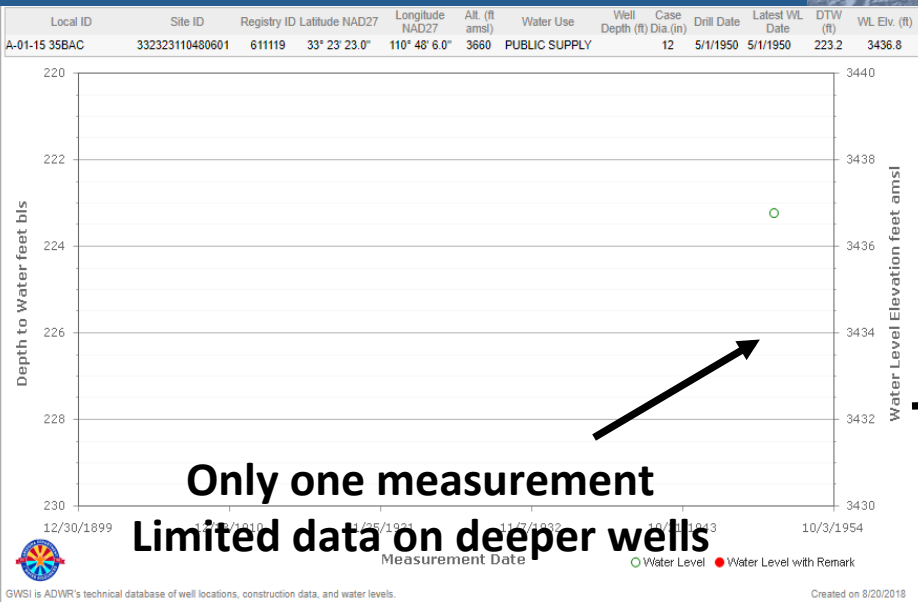
ADWR Groundwater Site Inventory (GWSI) Wells

• A-01-15 09DCD1 Hydrograph



ADWR Groundwater Site Inventory (GWSI) Wells

• A-01-15 35BAC Hydrograph



CLOSING REMARKS

- Limited ADWR hydrological data
- Future ADWR data collection?
 - 34 Unused GWSI wells which could be potential ADWR monitoring sites
- Outside an Active Management Area – no requirements to measure or report water use and volumes



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Arizona Water Initiative

Rural Programs

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