

### Water Infrastructure in the East Salt River Valley Sub-basin:

The East Valley Water Forum members recognized early in the process that in order to capitalize on regional opportunities, it would be important to have an inventory or map of current East Valley water and wastewater infrastructure. To that end, the US Bureau of Reclamation compiled infrastructure information ranging from water lines to large facilities, such as water or wastewater treatment plants, to provide vital information to the regional management planning process. This information was received from individual water providers, as well as the Arizona Department of Water Resources (ADWR), and provided to Reclamation to develop the following narrative listing, as well as accompanying maps provided as part of this Plan Appendix.

### **WELLS**

The Forum determined the size of wells to be included on the infrastructure map should be 12-inch in diameter and larger. The Arizona Department of Water Resources regulates all water well production within the State of Arizona including the EVWF planning area. The wells reflected on the infrastructure map are from the ADWR Wells 55 report dated March 2004. The total number of wells included on the map are 1,330. The well classifications included on the map meet the 12-inch and larger criteria. The classifications are: recovery wells, recharge wells, municipal and industrial wells, and agricultural wells. Only those water wells with a production volume greater than 35 gallons per minute were included in this map.

Recovery Wells: There are 495 wells distributed throughout the East Valley Water Forum planning area. These wells serve several different purposes; water distribution, golf course irrigation, municipal, industrial, and combinations of all of these. How these stack up in the EVWF planning area are: wells used for water production and distribution throughout a municipal provider's service area (332 wells) golf course irrigation wells (10 wells), general municipal wells (100 wells), municipal and industrial wells (52 wells), and industrial purposes wells (1 well).

Recharge/Vadose Zone Wells: According to the ADWR Wells 55 report, as of March 2004 there are a total of 81 recharge wells. There are no specific grid coordinates provided in the report, however, they are located by land section. These wells are generally irrigation district wells used in groundwater savings facilities operated in the EVWF planning area.

Production Wells for Municipal and Industrial: As stated above, the ADWR Wells 55 report indicates various designations of production wells. The report indicates there are 123 municipal wells, 90 combined municipal and industrial wells, and 20 designated as turf wells.

Production Wells for Agriculture: The Wells 55 report also indicates that Salt River Project has traditionally supplied water for agriculture and has a total of 277 production wells. Since the Salt River Project (SRP) is rapidly converting from agriculture to municipal and industrial, the number of agricultural wells may be overstated in the Wells 55 report.

### **GROUNDWATER SAVINGS FACILITIES**

Groundwater savings facilities located in the East Valley Water Forum planning area include the following systems: Queen Creek Irrigation District, Chandler Heights Citrus Irrigation District, New Magma Irrigation & Drainage District, Roosevelt Water Conservation District, and Salt River Project. Several communities and others use these facilities for long-term water storage.

### **UNDERGROUND STORAGE FACILITIES (USF)**

Several water providers in the East Valley Water Forum hold USF permits and operate these facilities for the benefit of themselves and others. Institutions and communities that hold USF permits in the EVWF planning area include: Salt River Project, City of Mesa, Town of Gilbert, City of Chandler, Ocotillo Management Group, Pima Utilities, City of Scottsdale, and City of Tempe.

### **WATER TREATMENT PLANTS**

Water treatment plant data included on the infrastructure map were obtained from the local cities and towns and private water companies. Water treatment plants are used for the treatment of renewable water supplies such as the surface water supplies from CAP and SRP.

Water service providers in the East Valley study area who have surface water treatment plants include the following towns and cities: City of Mesa, Town of Gilbert, City of Tempe, City of Chandler, City of Phoenix, and the City of Scottsdale. Some private water companies also provide surface water treatment for their customers but obtain this capacity from the institutions above.

### **WASTEWATER TREATMENT AND WATER RECLAMATION PLANTS**

Wastewater treatment and water reclamation plants are included on the infrastructure map. There are facilities located in the Cities of Scottsdale, Chandler, Mesa, and Tempe; and the Towns of Gilbert and Queen Creek. Further, the Sub-regional Operating Group (SROG) comprised of the Cities of Glendale (not a member of EVWF), Mesa, Phoenix, Scottsdale, and Tempe, operates a joint regional wastewater treatment plant at the 91<sup>st</sup> Avenue facility. The SROG facility is outside of the EVWF planning area.

## **CANALS WITH LATERALS**

There is a large network of canals and laterals throughout the East Valley Water Forum planning area. Several entities are responsible for these structures. The Central Arizona Water Conservation District operates the Central Arizona Project (CAP) canal which was originally constructed by the Bureau of Reclamation and is 336-miles long, about 60 miles of which runs through the EVWF planning area. This is a system of aqueducts, tunnels, pumping plants and pipelines and is the largest single resource of renewable water supplies in the State of Arizona.

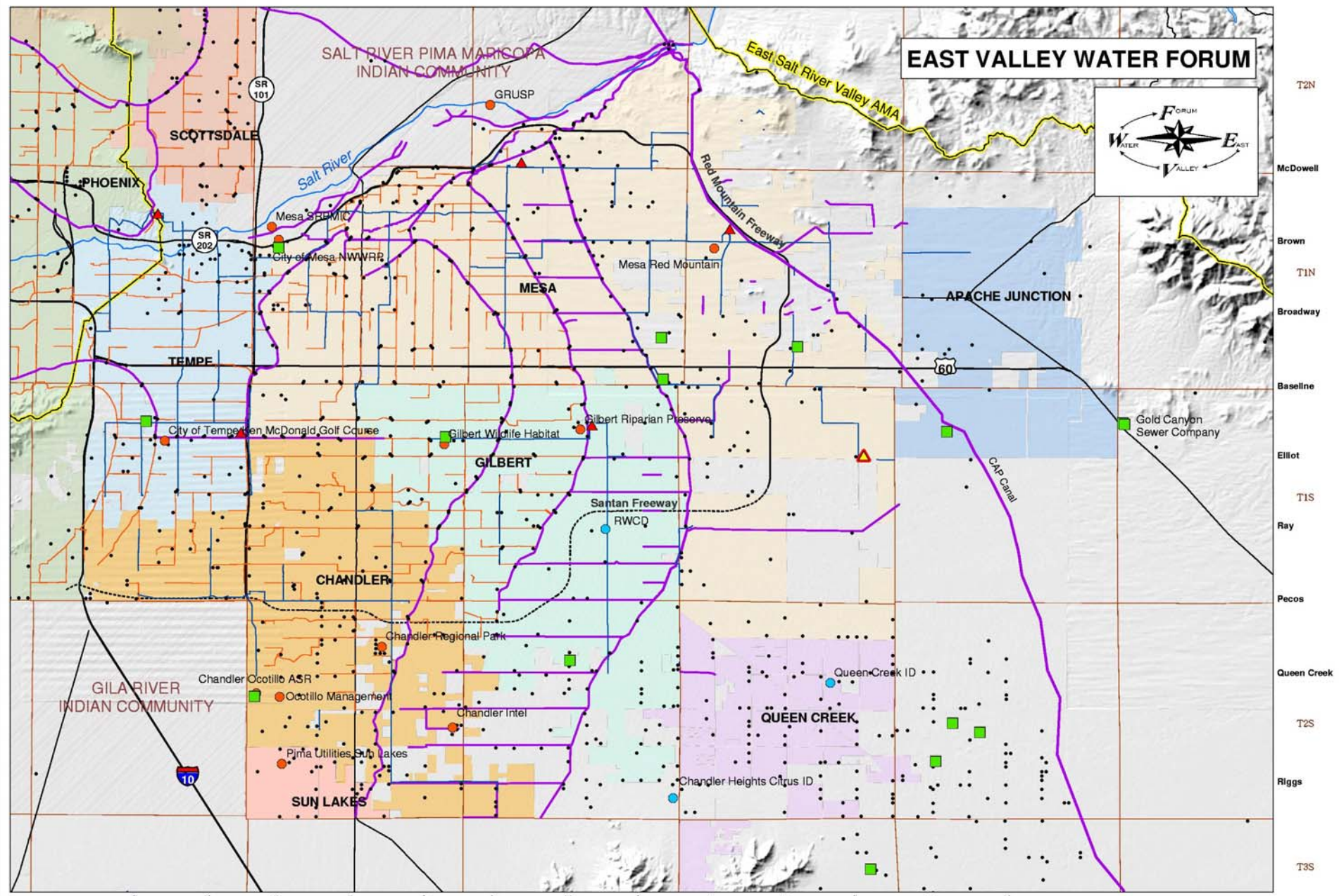
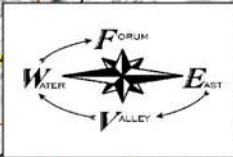
The Salt River Project (SRP) is one of the major purveyors of water in the East Valley Water Forum planning area. SRP operates the project which was originally constructed by the Bureau of Reclamation. The total length of the SRP canal system is 131-miles of main canal. About 84 miles of these canals run through the EVWF planning area. The primary use of these waterways is to bring municipal, industrial and agricultural irrigation water to the East Salt River Valley. Further, there are a total of 307 miles of laterals that cross the EVWF planning area.

Roosevelt Water Conservation District (RWCD) has a network of canals and laterals within the EVWF planning area, serves water to member lands and has 71 miles of canals and laterals. The Roosevelt Water Conservation District is a political subdivision of the State of Arizona, incorporated in 1924 as an irrigation and water conservation district. RWCD serves approximately 41,500 acres of land situated east of the Salt River Project (SRP) service area. Based on their appropriations of surface water per a 1924 agreement between RWCD and SRP, they provide Salt and Verde River water to approximately 3,500 urban, municipal, industrial, and agricultural customers. Additionally, they provide surface water for potable needs to the East Valley cities of Mesa, Chandler, and Gilbert.

## **PIPELINES**

During the planning phase of the EVWF water infrastructure map, it was determined that pipelines should be included on the map, but this was limited to pipe 24-inch and larger because this size pipe represents large scale distribution or transmission type of piping. In this category there are 119 miles of pipeline in the EVWF planning area that have a pipe diameter of 24 inch and larger.

# EAST VALLEY WATER FORUM



T2N  
McDowell  
Brown  
T1N  
Broadway  
Baseline  
Elliot  
T1S  
Ray  
Pecos  
Queen Creek  
T2S  
Riggs  
T3S

R4E    Sylve    McClintock    Dobson    R5E    Arizona    Cooper    Lindsay    R6E    Greenfield    Recker    Sossaman    R7E    Ellisworth    Signal Butte    Ironwood    R8E    Tomahawk

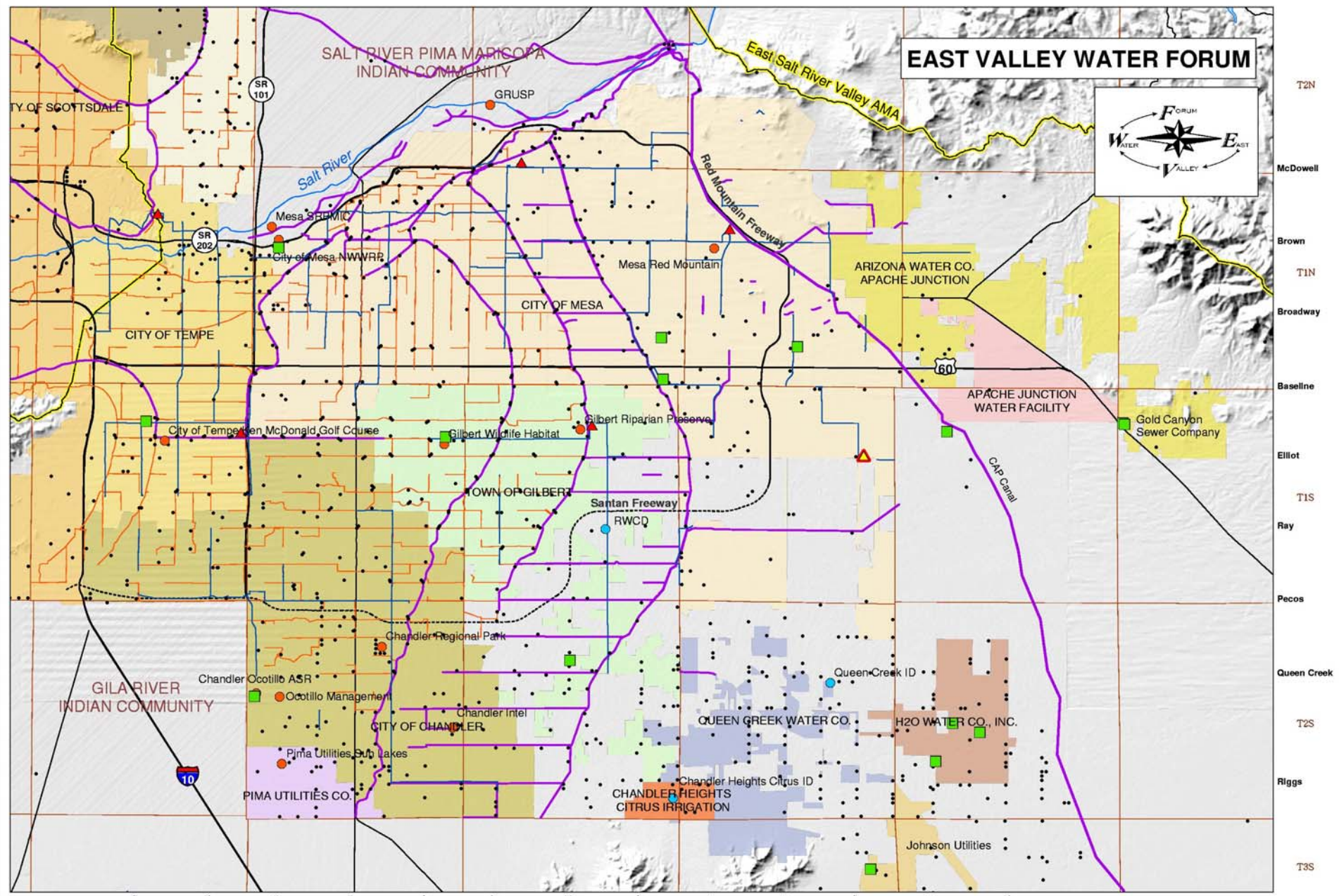
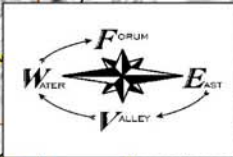
## Political Boundaries – All Infrastructure

- Wells 12" casing and larger
- Groundwater Saving Facilities
- Undergroud Storage Facilities
- ▲ Water Treatment Plants
- Wastewater Treatment Plants
- ▲ Water Treatment Plant (Future)
- Laterals
- Canals
- Water Pipelines 24" & Larger





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T2N  
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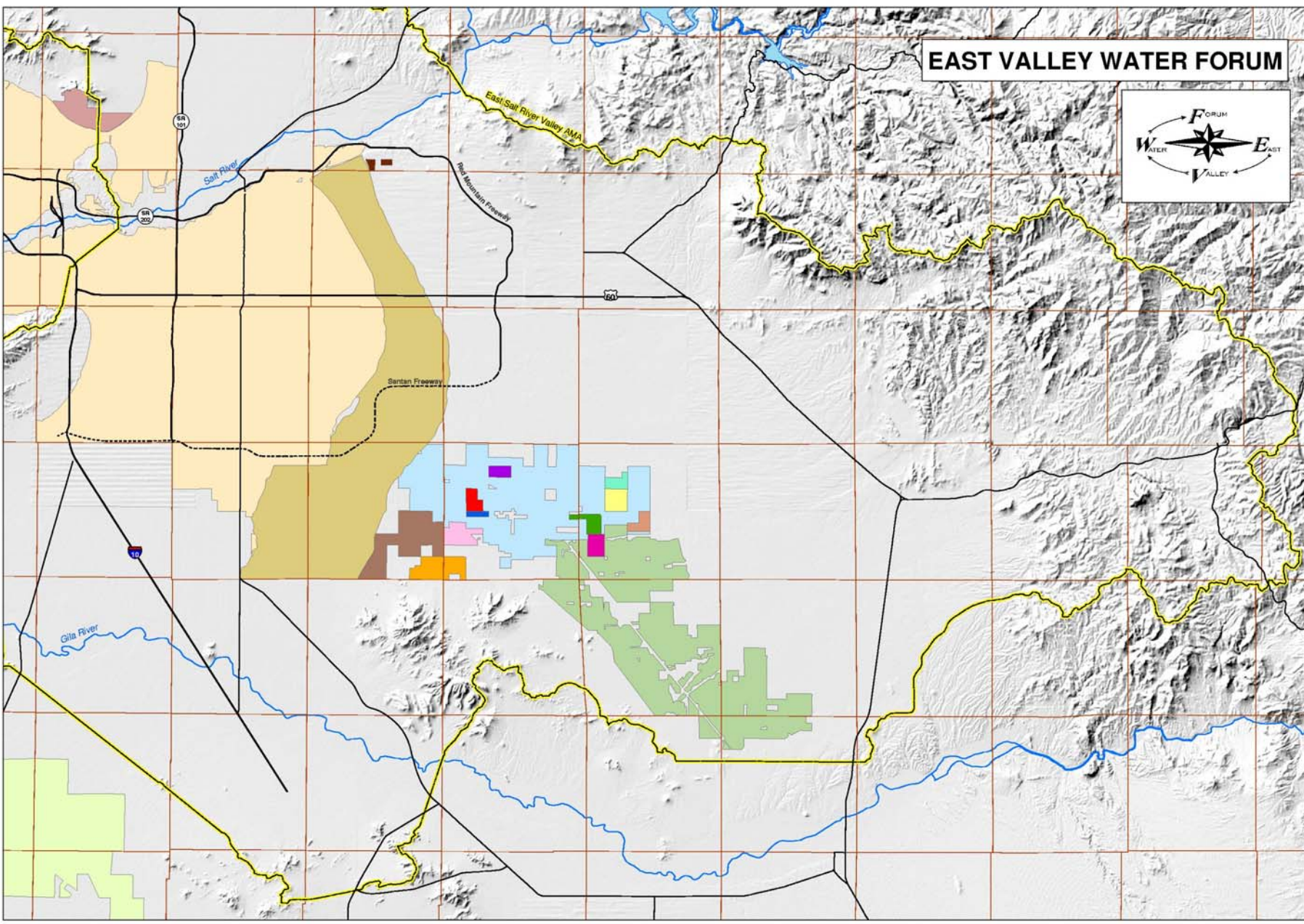
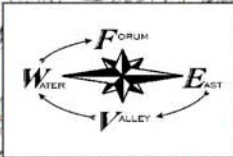
R4E    Sylve    McClintock    Dobson    R5E    Arizona    Cooper    Lindsay    R6E    Greenfield    Recker    Sossaman    R7E    Ellisworth    Signal Butte    Ironwood    R8E    Tomahawk

## Water Service Areas –All Infrastructure

- Wells 12" casing and larger
- ▲ Water Treatment Plants
- Laterals
- Groundwater Saving Facilities
- Wastewater Treatment Plants
- Canals
- Underground Storage Facilities
- ▲ Water Treatment Plant (Future)
- Water Pipelines 24" & Larger



# EAST VALLEY WATER FORUM



T2N  
T1N  
T1S  
T2S  
T3S  
T4S  
T5S

R4E R5E R6E R7E R8E R9E R10E R11E R12E



### Irrigation Districts

- Arcadia Water Company
- Maricopa-Stanfield Irrig. & Drainage Dist.
- Queen Creek Irrigation District
- Ranchos Jardines Irrig. Delivery Dist.
- Roosevelt Water Conservation Dist.
- Salt River Valley Water Users Assoc.
- San Tan Irrigation District
- Chandler Heights Citrus Irrig. Dist.
- Queen Creek Irrig. Water Delivery Dist.
- Suburban Irrigation District
- Sun Valley Farms Coop III (Inactive 2001)
- Sun Valley Farms Unit II
- Sun Valley Farms Unit IV
- Sun Valley Farms Unit VII
- Country Farms Irrig. & Mgt Co.
- Queen Creek Suburban Ranches
- New Magma Irrig. and Drainage Dist.
- Queen Creek Irrig. Water Delivery Dist.
- Suburban Irrigation District
- Sun Valley Farms Coop III (Inactive 2001)
- Sun Valley Farms Unit II
- Sun Valley Farms Unit IV
- Sun Valley Farms Unit VII

