



City of Prescott

City Council - Study Session

August 11, 2026 | 2:00 PM
201 N Montezuma Street
Council Chambers, 1st Floor
Prescott, AZ 86301

AGENDA

The following Agenda will be considered by the **Prescott City Council** at its **Study Session** pursuant to the Prescott City Charter, Article II, Section 13. Notice of the meeting is given pursuant to Arizona Revised Statutes, Section 38-431.02. One or more members of the Council may be attending the meeting through the use of a technological device.

Viewing & Participation

This meeting may be viewed on Channel 64, Facebook Live or on the City's website: [City of Prescott Live Meeting Feed](#)

Public comments for Council may be submitted through the City website: [Public Comment Form](#)

1. CALL TO ORDER

2. ROLL CALL

3. DISCUSSION

- A. Presentation & Discussion Regarding an Update on the Draft Long-Term Water Management Plan.

4. ADJOURNMENT

Upon a public majority vote of a quorum of the City Council, the Council may hold an executive session, which will not be open to the public, regarding any item listed on the agenda but only for the following purposes:

- (1) Discussion or consideration of personnel matters (A.R.S. §38-431.03(A)(1));
- (2) Discussion or consideration of records exempt by law (A.R.S. §38-431.03(A)(2));
- (3) Discussion or consultation for legal advice with the city's attorneys (A.R.S. §38-431.03(A)(3));
- (4) Discussion or consultation with the city's attorneys regarding the city's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation, or in settlement discussions conducted in order to avoid litigation (A.R.S. § 38-431.03(A)(4));
- (5) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations with employee organizations (A.R.S. §38-431.03(A)(5));

- (6) Discussion, consultation or consideration for negotiations by the city or its designated representatives with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city (A.R.S. §38-431.03(A)(6);
- (7) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property (A.R.S. §38-431.03(A)(7)).

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall on 8/6/26 at 11:00 a.m. in accordance with the statement filed by the Prescott City Council with the City Clerk.

Sarah M. Thornhill

Sarah M. Thornhill, City Clerk



TO: MAYOR AND CITY COUNCIL
AGENDA: August 11 Study Session
DATE: August 11, 2026
DEPT: Community Development
ITEM #: 3.A
SUBJECT: Presentation & Discussion Regarding an Update on the Draft Long-Term Water Management Plan.

ITEM SUMMARY

This item is to provide an update on the Long-Term Water Management Plan in accordance with the Council Strategic Plan Fiscal Years 2026 - 2031.

BACKGROUND

The previous Council Study Session update was held on November 18, 2025. The Council Subcommittee has been updated as follows: February 3, 2026, June 2, 2026, and July 7, 2026.

This project is supported by three consultants, Herb Dishlip Consulting (supply and demand), Carollo Engineering (infrastructure assessment), and Matrix New World (hydrogeology). A fourth consultant, Ron Doba Management Services is engaged as an external reviewer of all project products (technical memos and final report).

FINANCIAL IMPACT

Funding is budgeted and available in the Public Works Department FY27 Water Fund.

RECOMMENDED ACTION

This item is for discussion only. No formal action will be taken.

ATTACHMENTS

1. LTWMP Presentation



Council Study Session

August 11, 2026

LESLIE GRASER
WATER RESOURCES PROJECT MANAGER

DYLAN EASTHOUSE
MATRIX NEW WORLD, SENIOR HYDROGEOLOGIST

BRIAN RUIZ
WATER RESOURCES MANAGER

Long-Term Water Management Plan Project Update



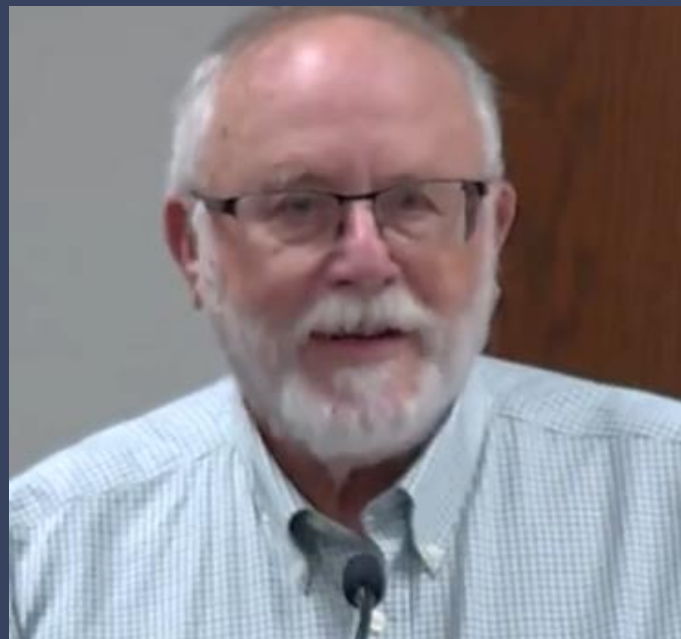


Agenda

- **Project Framework**
- **Hydrogeology**
- **Forthcoming Work
and Upcoming
Deliverable**



Our Consulting Team



**Herb Dishlip
Consulting**



**Carollo
Engineering**



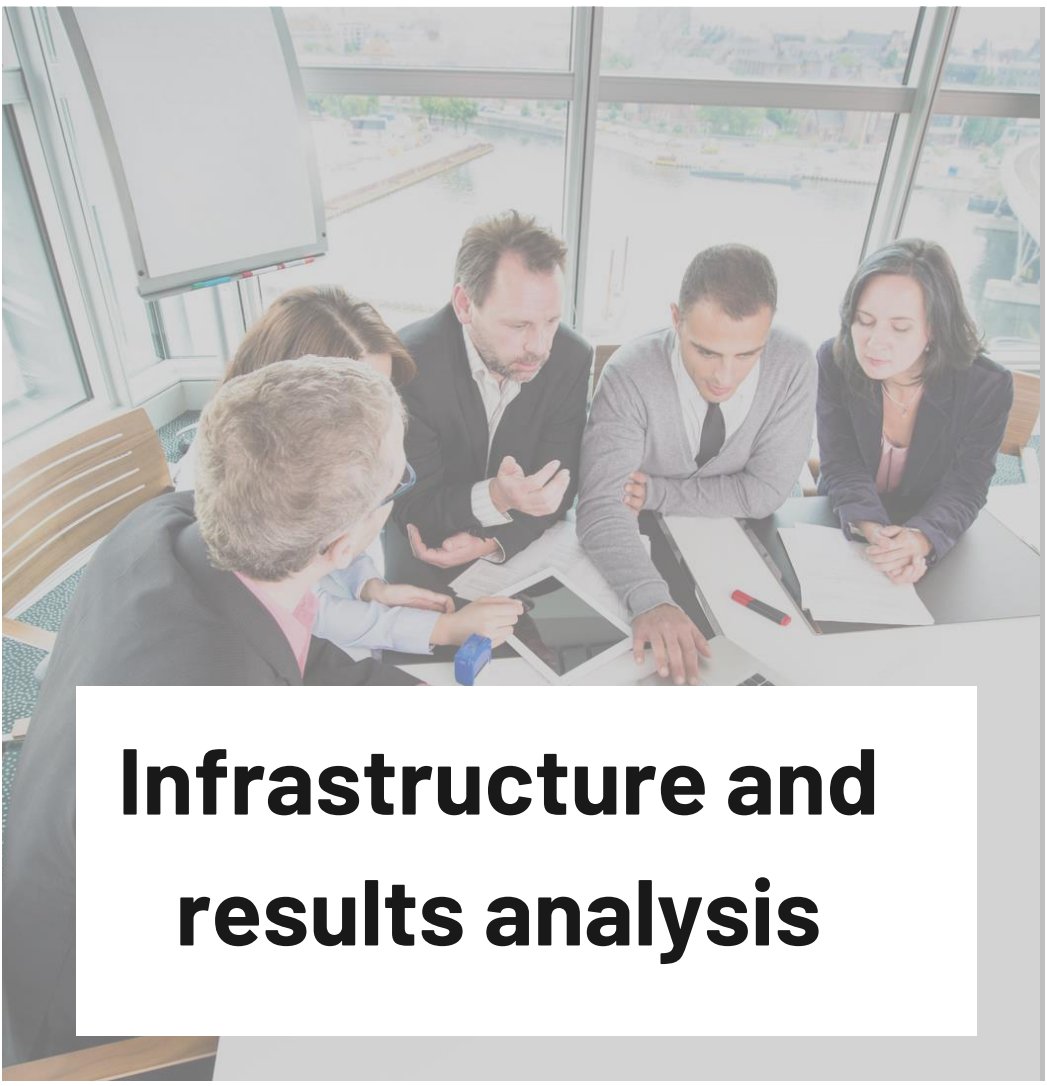
**Matrix New World
Engineering**

Plan Goals for the Remainder of 2026

Today's discussion items outlined in red



**Modeling and
results analysis**



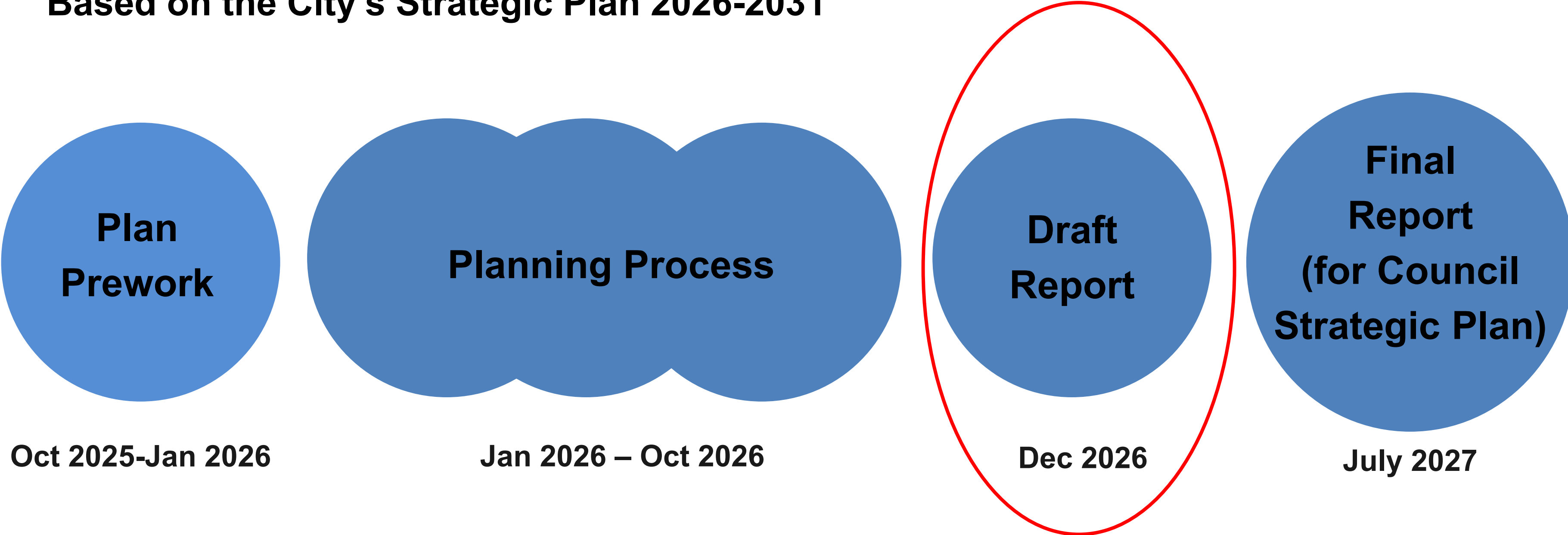
**Infrastructure and
results analysis**



**Draft Report
Writing**

Plan Timeline

Based on the City’s Strategic Plan 2026-2031



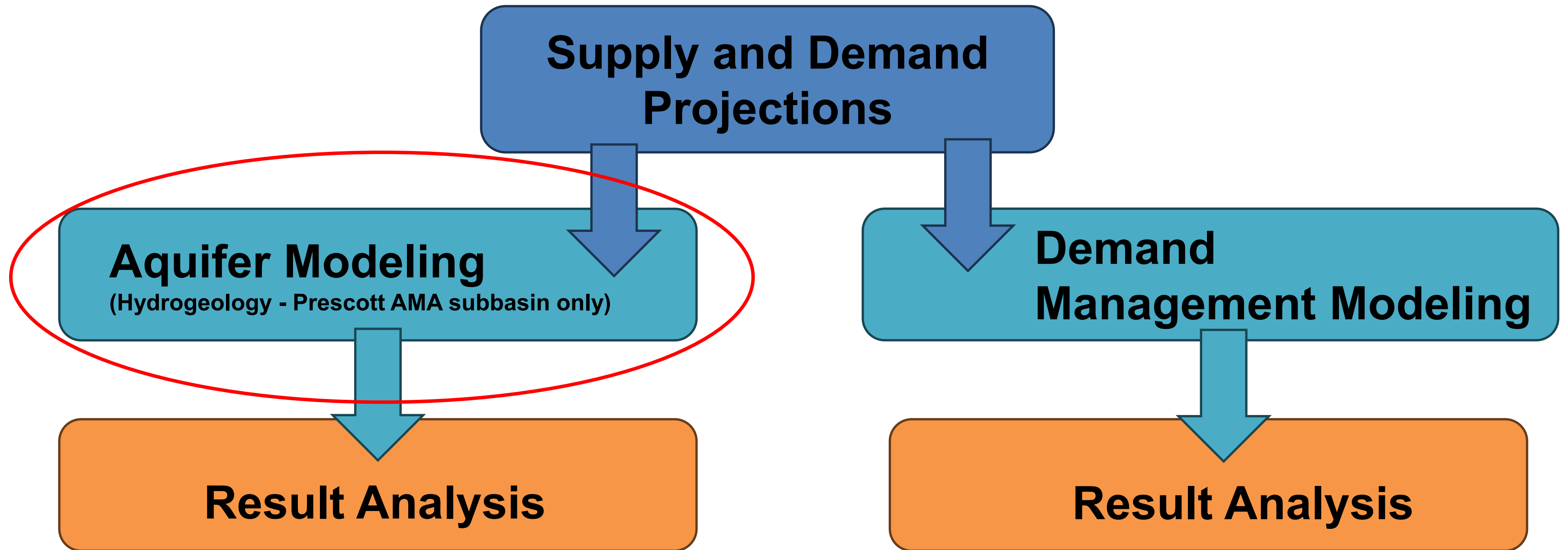
Stair steps and Landings

2025-2026 Stair Steps

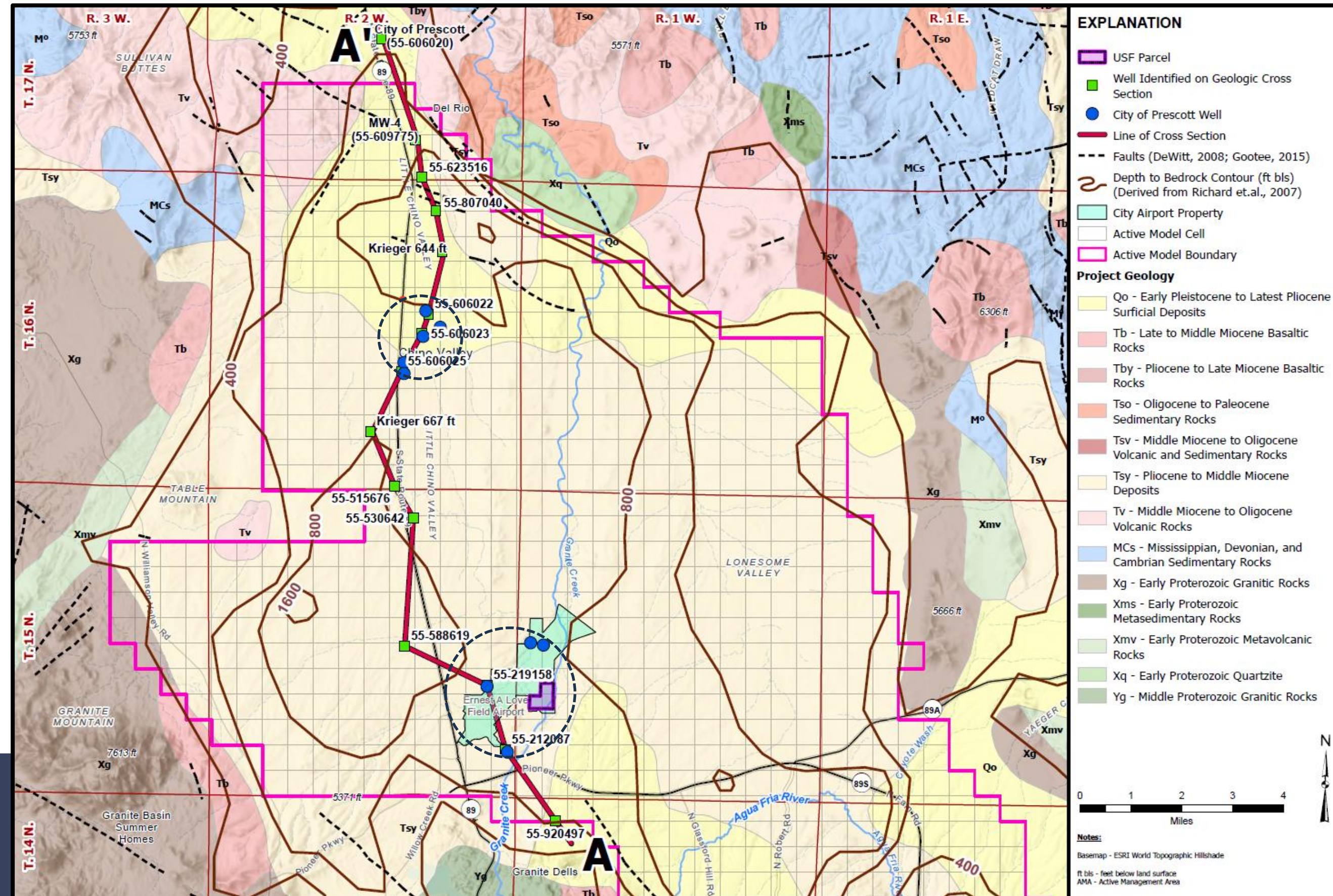
- ✓ Determine all City commitments for water (baselines)
- ✓ Determine how the City has commitments to grow (projected demands)
- ✓ Determine what the City will need (projected usage)
- ❑ Determine how the aquifer will react (hydrogeology)
- ❑ Determine how to use water as efficiently as possible (demand management)
- ❑ Analysis of options



Supply and Demand Projections to Modeling

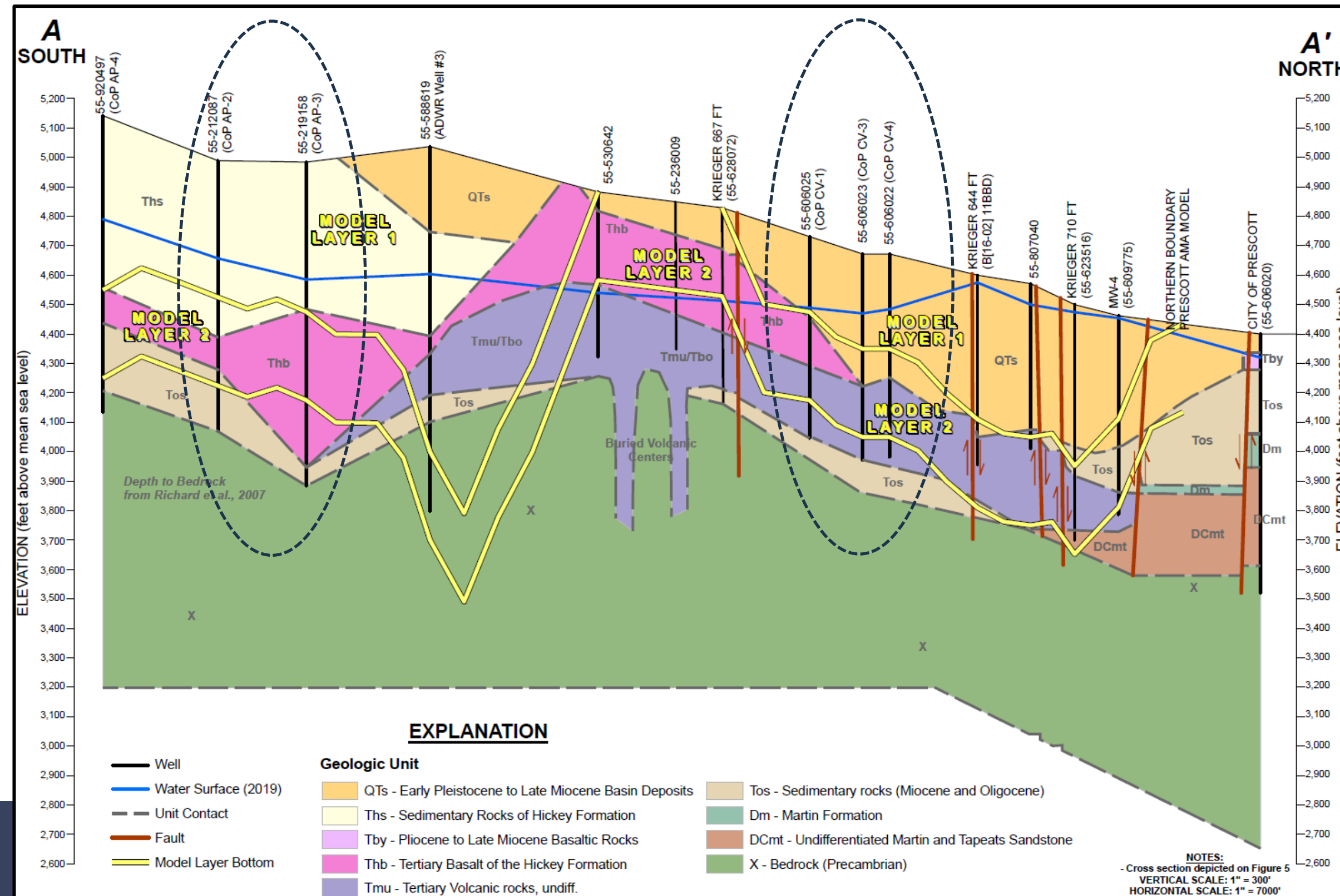


Basic Hydrogeology



- Structural trough that is filled with alluvial materials comprised of sand, gravel, clay, and reworked ash deposits (tuff) that are interbedded with volcanic rocks (basalt). Total thickness of aquifer units is generally less than 1,200 feet.
- 5 City supply wells located in Chino Valley and 3 near the Airport.
- The Prescott Recharge Facility is along Granite Creek east of the Airport

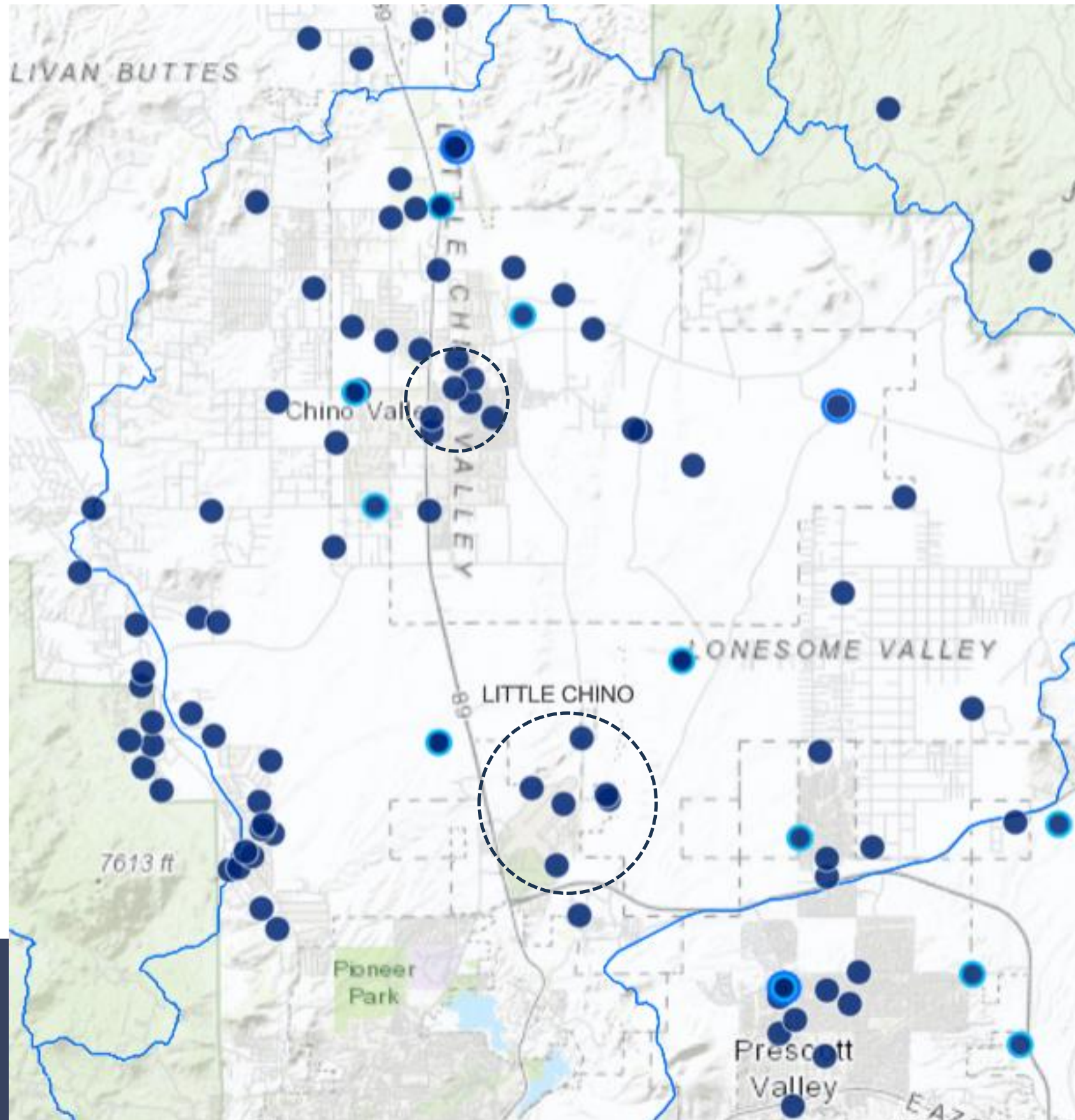
Basic Hydrogeology



GEOLOGIC CROSS-SECTION

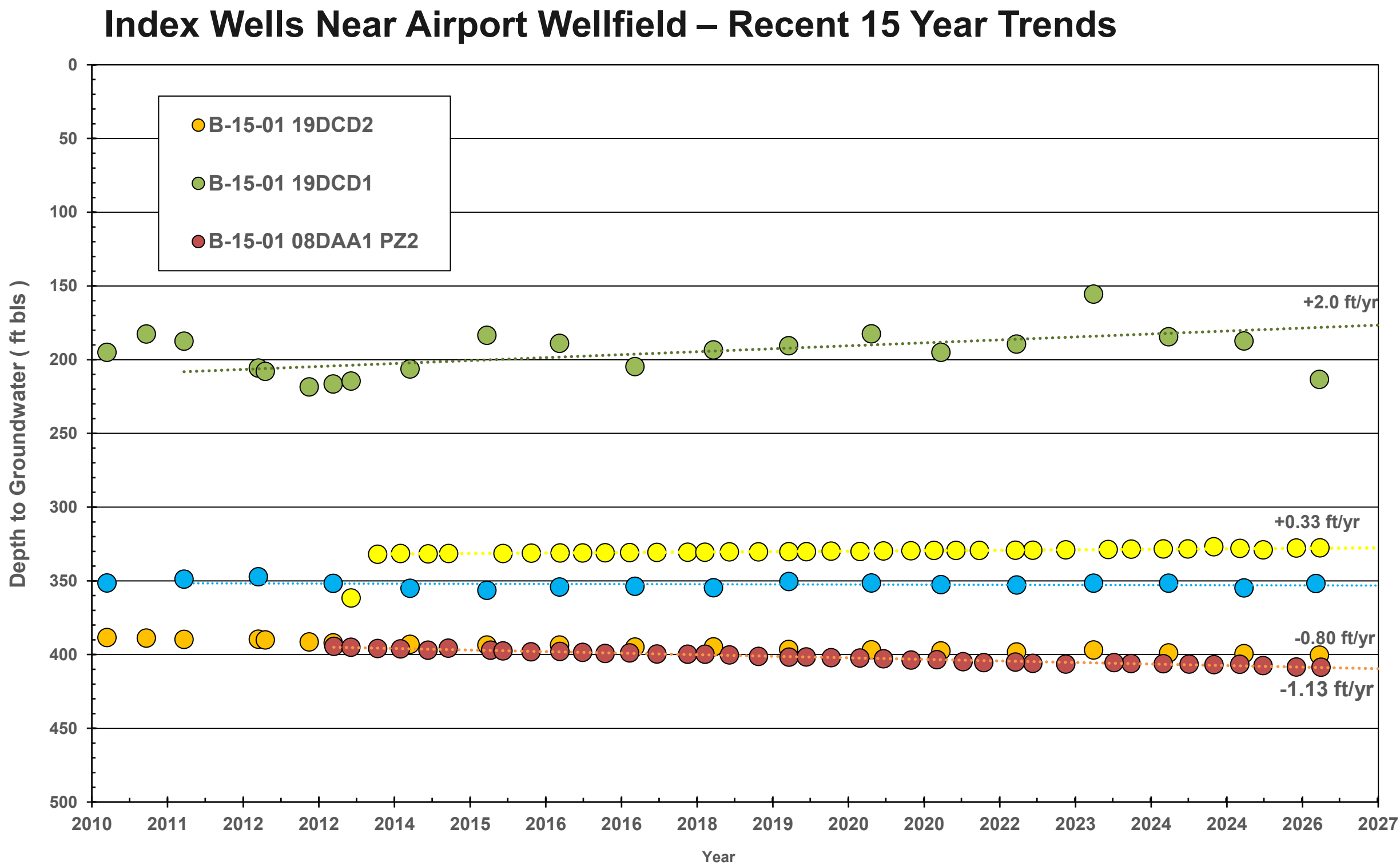
- Upper Alluvial Unit (UAU) generally comprised of sand, gravel, and clay
- Lower Volcanic Unit (LVU) generally basalt flows of varied age
- Lower alluvium beneath volcanics is not simulated in the model.
- Underlying bedrock (granite and schist) is not considered to be significantly water bearing.
- City production wells are installed in the LVU. Fractures in the basalt provides secondary porosity that is an order of magnitude higher than UAU.

Basic Hydrogeology



- Prescott AMA is comprised of two groundwater sub-basins: Little Chino Sub-basin (LCS) and Upper Aqua Fria Sub-basin (UAF).
- City wells are located entirely within the LCS.
- Groundwater in the LCS generally moves from south to north.
- ADWR Groundwater Site Inventory includes Index Wells that are monitored routinely. Wells with a light blue halo are measured quarterly; telemetry is installed for continuous monitoring at the dark blue halo locations.
- Depth to water varies from a few feet to approx. 500 feet in Sullivan Buttes. Depth to water in Chino Wellfield ranges from 190 to 280 feet below land surface (bls). Depth to water in the Airport Wellfield is 395 to 480 feet bls

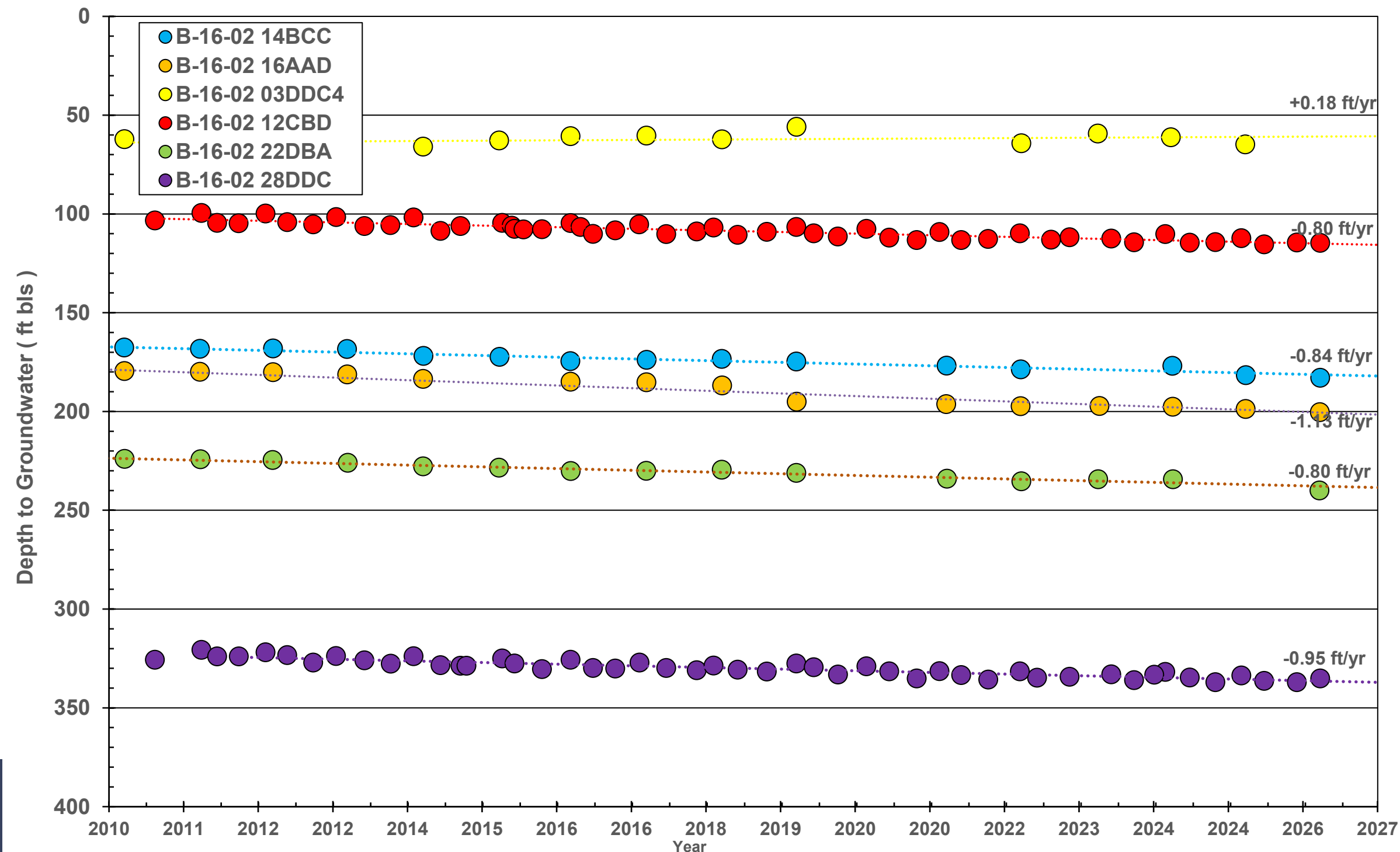
Basic Hydrogeology



- Hydrographs for period 2021 to 2026 show wells near the Airport have both rising and falling trends
- Wells with a rising trend of 0.33 to 2 feet per year (yellow and green), are installed in the UAU, that is the effect of recharge at the Prescott USF
- Wells with a falling trend of 0.8 to 1.13 feet per year are installed in the LVU; this is the primary aquifer for City supply wells.

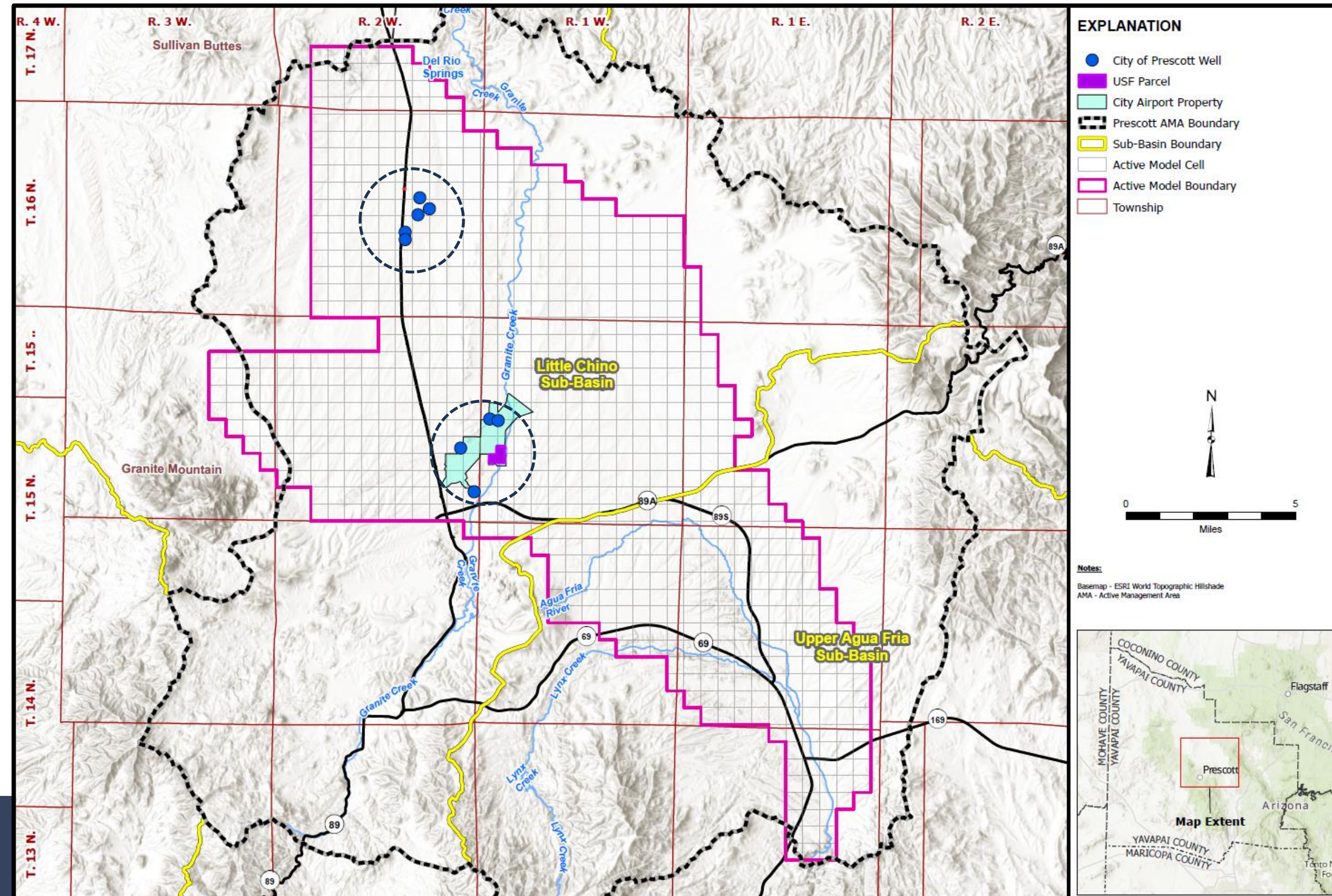
Basic Hydrogeology

Index Wells Near Chino Wellfield – Recent 15 Year Trends



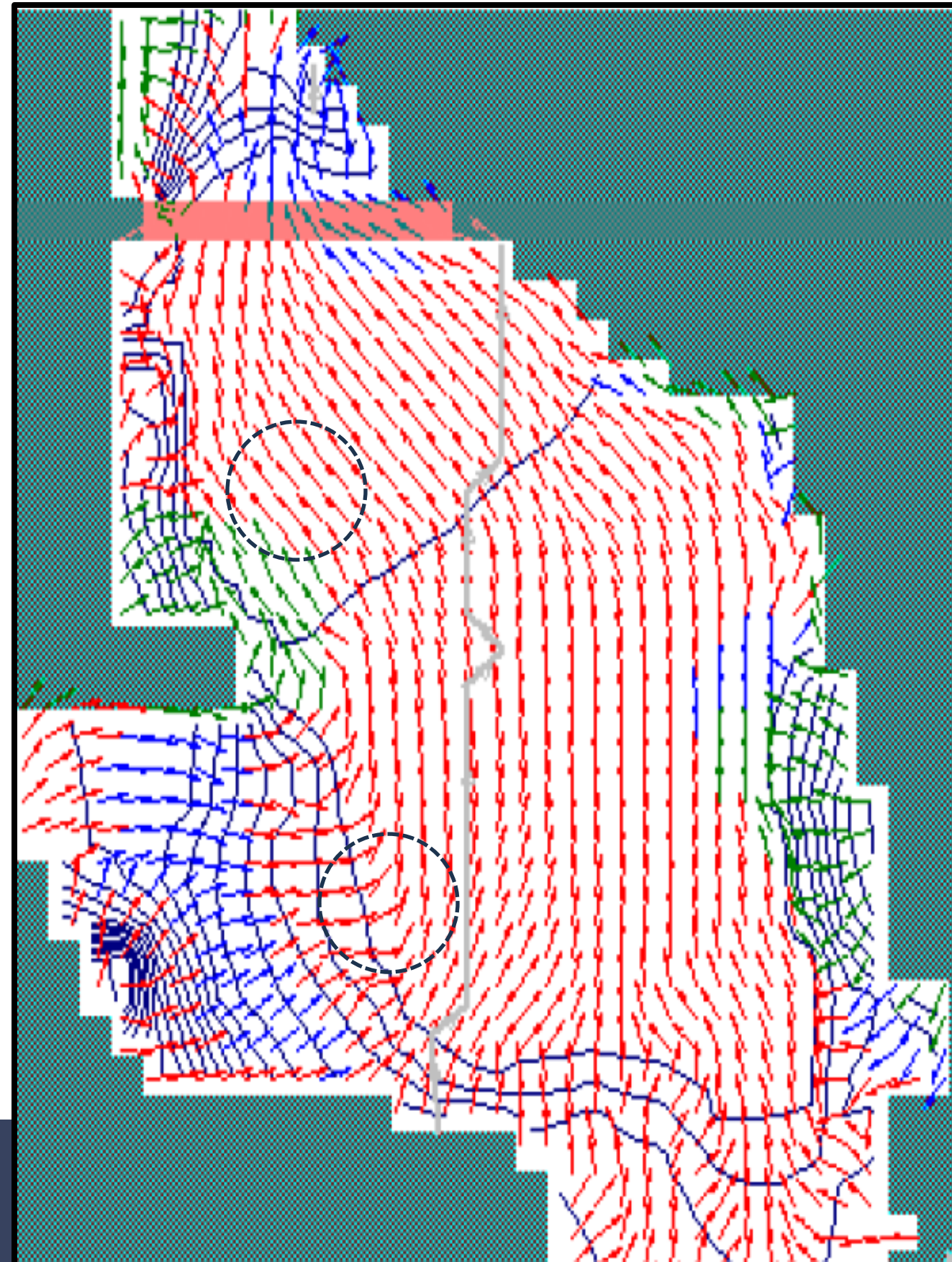
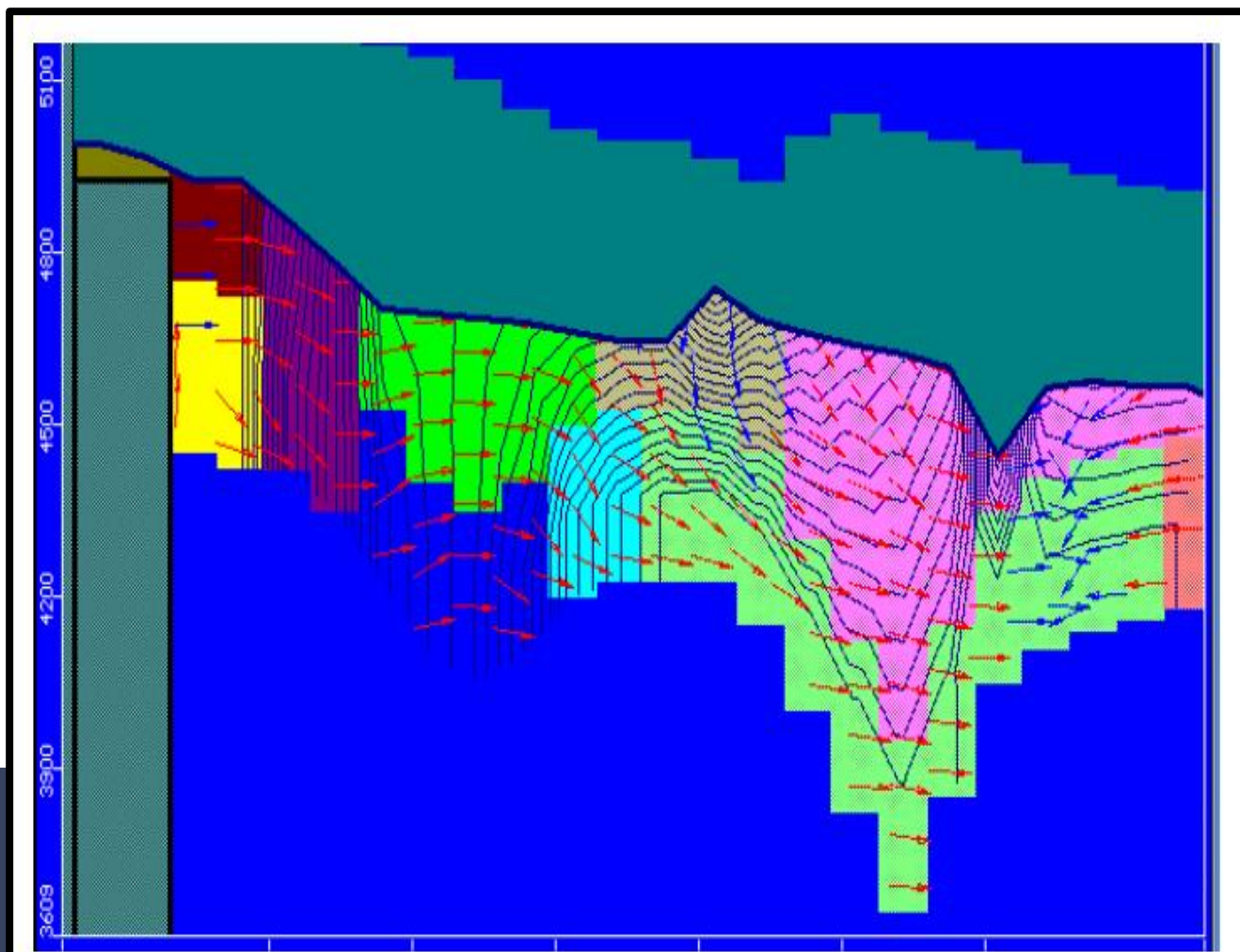
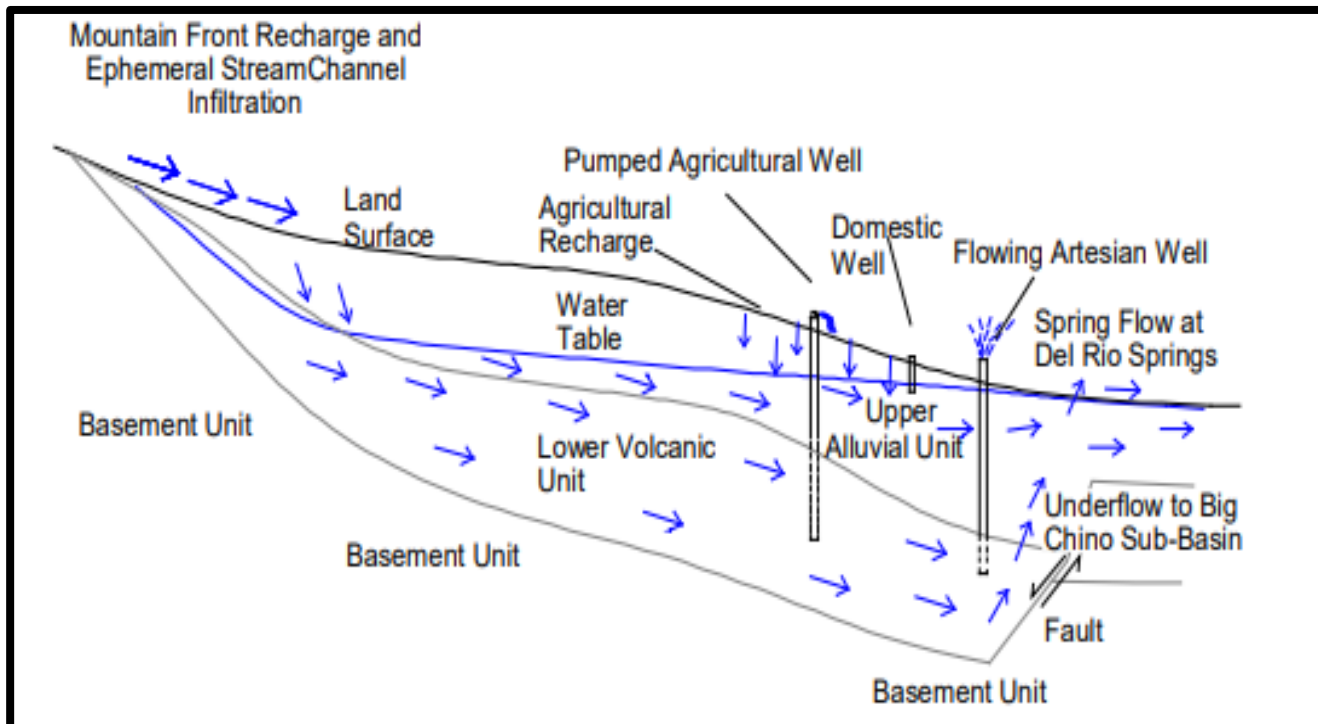
- Hydrographs for period 2021 to 2026 show wells near the Chino Wellfield in the LVU are falling at average rate of 0.9 ft/yr
- Wells in the UAU are generally stable or slightly rising likely due to decreased demand from other wells in the UAU
- Wells with falling trend of 0.8 to 1.13 feet per year are installed in the LVU this is the primary aquifer for City supply wells.
- Decline trend of wells in the LCS can generally be described as 1 ft/yr with slightly higher rate near the southern boundary approaching the Prescott Valley Wellfields.

Prescott AMA (PrAMA) Model



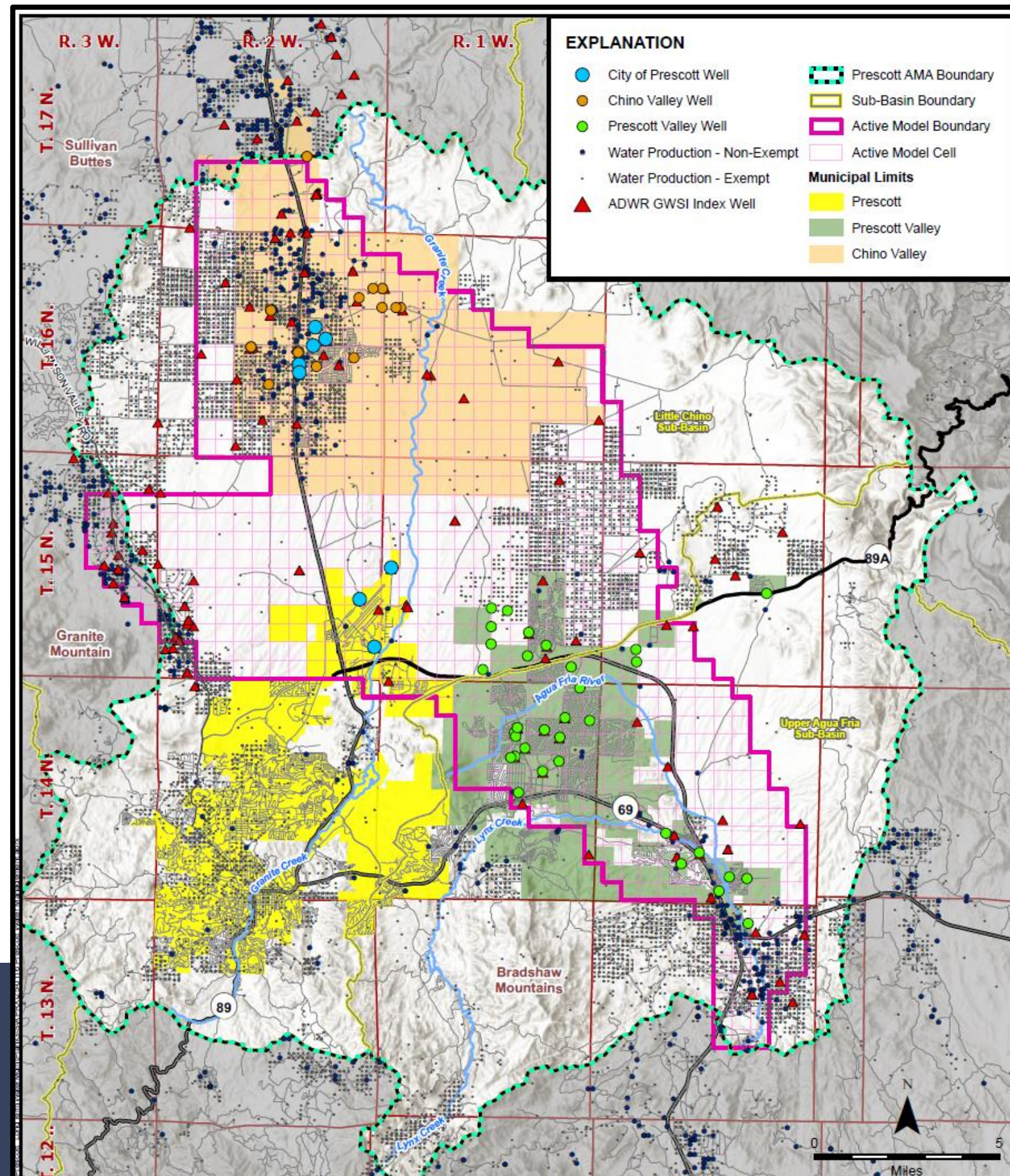
- Active domain is 250 square miles that includes Little Chino Sub-basin (LCS) and Upper Agua Fria Sub-basin (UAF)
- Cells are 1/2-mile x 1/2-mile
- 2 model layers
- Calibrated for period 1940 - 2019
- Limits are the 400-foot depth to bedrock contour although groundwater is present in areas beyond
- General head boundaries are assigned to selected model cells to simulate groundwater inflow to or outflow from the model domain.

Prescott AMA Model



- Each model cell is assigned values of hydraulic conductivity (both vertical and horizontal), specific yield, storativity, and thickness for the respective layer.
- Inputs of recharge are assigned to model cells at higher elevations, along selected streams, and at USFs.
- Groundwater movement in the Little Chino, in general moves northerly towards Del Rio Springs
- Aquifer properties are established by pump testing.
- ADWR Index Wells are used as calibration targets to match changes to groundwater elevation over time.

Model Projection Assumptions for 10-, 25-, and 50-Years



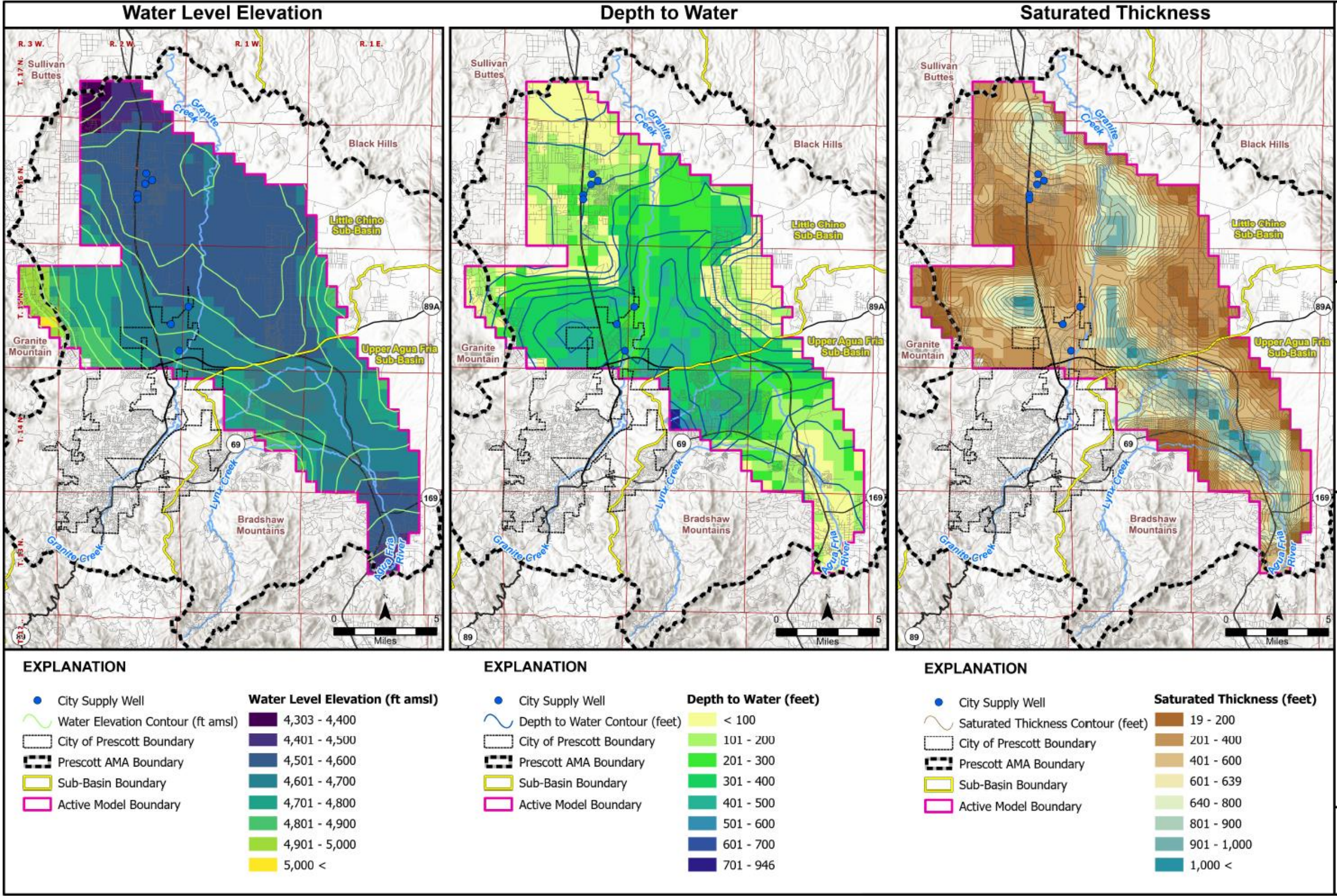
➤ Pumping

➤ Natural Recharge

➤ Artificial Recharge

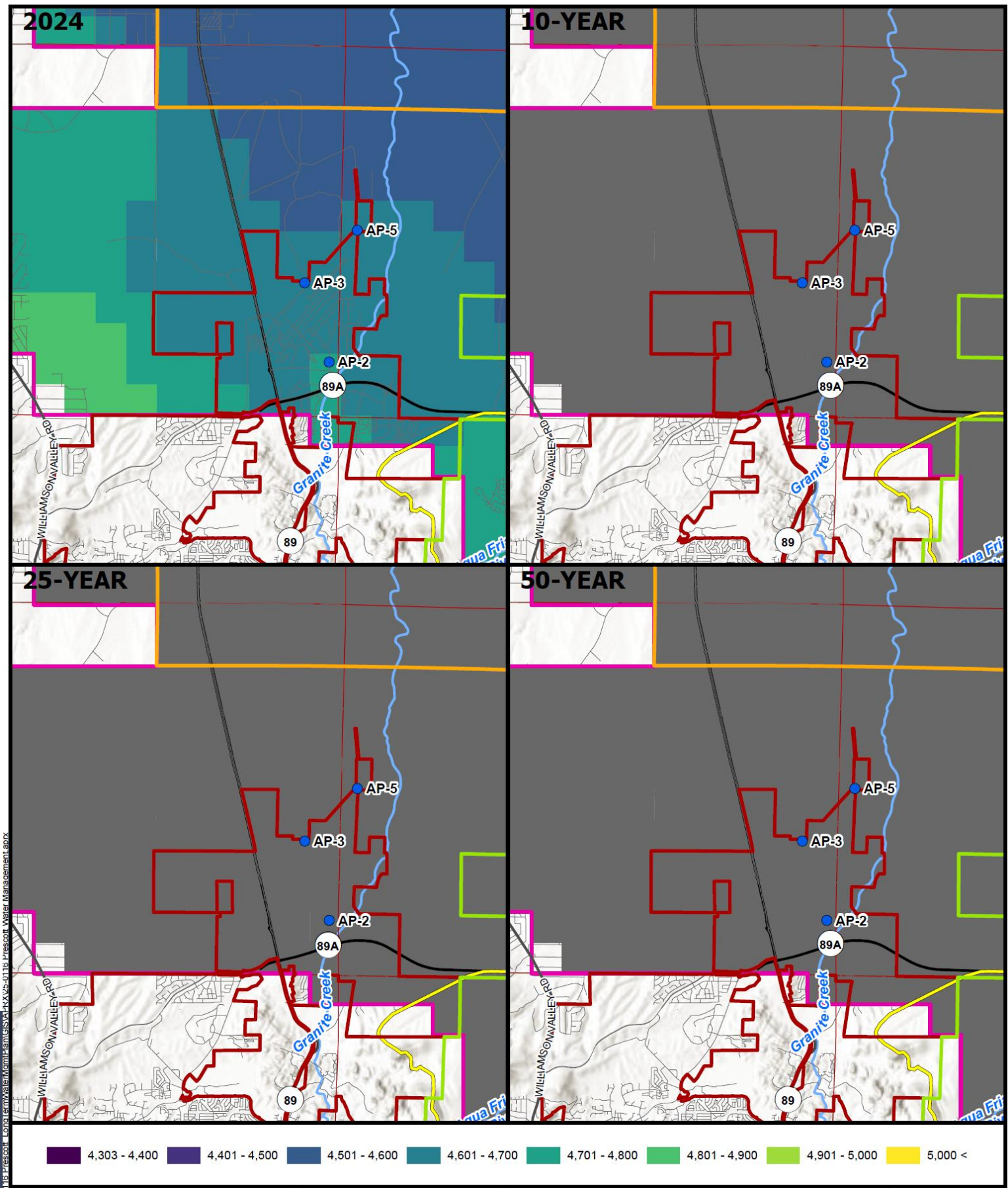
- City potable demand (Dishlip Consulting) distributed 65% to Chino Wellfield and 35% to the Airport Wellfield
- Pumping at existing Town of Chino Valley supply wells (3) and Town of Prescott Valley supply wells (27) increased 2% annually
- Pumping for irrigation or other non-exempt well uses (~350 wells) is held constant at 2024 reported volumes
- Simulated demand of 0.5 acre-feet per year for ~6,900 exempt is increased 2% annually.
- Inputs of natural recharge assigned an average value from the recent historical period.
- City supply of surface water and effluent assigned to USF model cells at annual volume estimated by Dishlip Consulting; other municipal USFs are increased 1.3% year over year that is 65% of pumping.

2024 Baseline Conditions



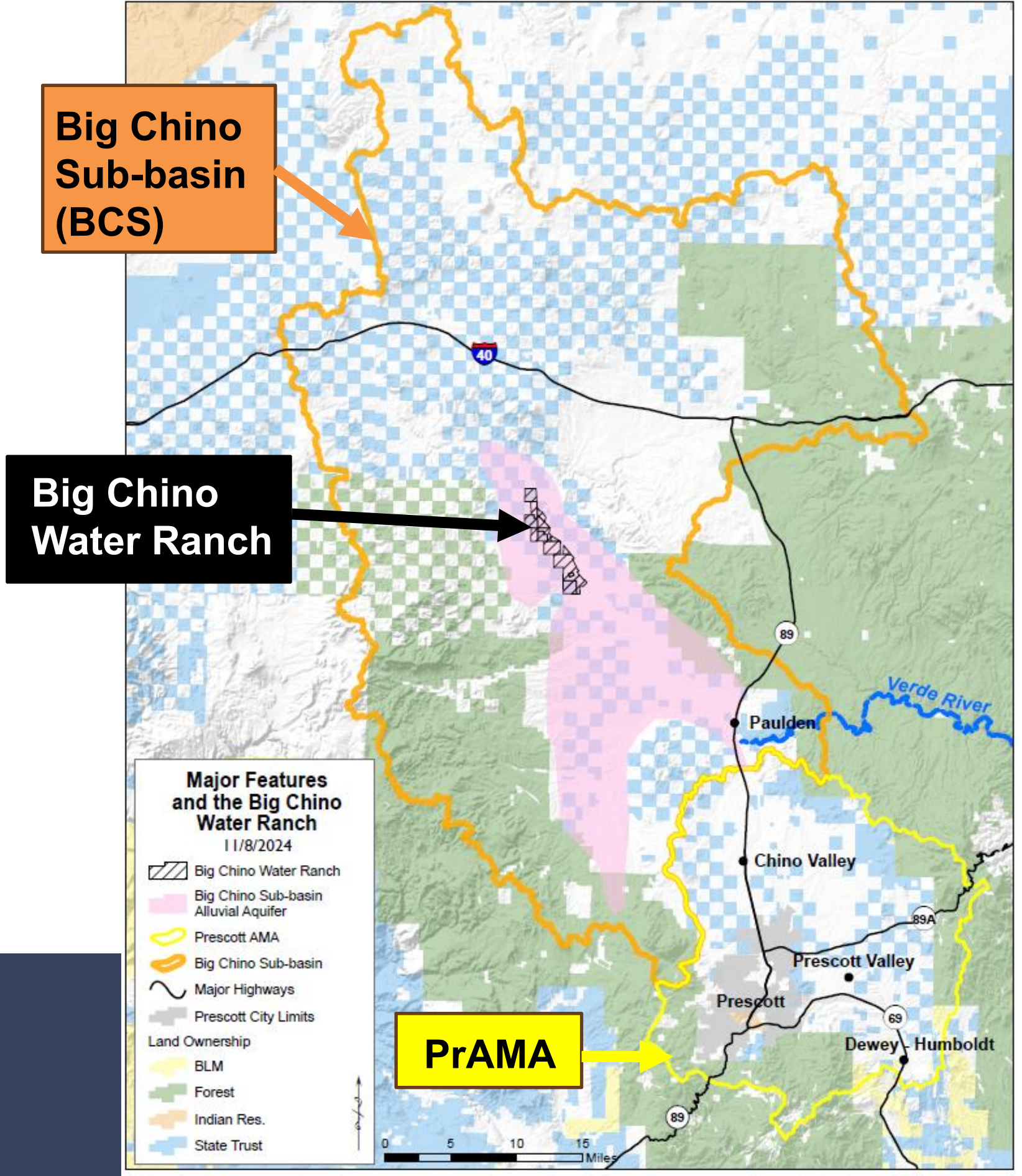
- The 2021 PrAMA Model is updated with reported pumping by non-exempt and municipal wells, and artificial recharge through 2024.
- The model generally does a good job to simulate groundwater conditions, but actual water levels in certain areas may be as much as 100 feet different than actual conditions.
- Matrix adjusted the aquifer parameter of hydraulic conductivity in Layer 1 in the vicinity of Prescott Recharge Facility to better simulate actual rise in the UAU.
- Maps show that depth to water is shallow on basin margins where saturated thickness (Bsat) is least. City wells are in an area of moderate Bsat, but where hydraulic conductivity is very high.

DRAFT – Technical Memo 4



- Technical Memorandum to provide a brief summary of hydrogeologic conditions and present the 2024 Baseline Conditions of the PrAMA Model. Matrix will present maps and tables describing changes to water levels and Bsat in the Airport and Chino Wellfields at 10, 25, and 50 years, respectively.
- The 2024 model simulated Bsat in both wellfields is approximately 450 feet. Preliminary results indicate that the 50-year simulated decline in water level in Chino Wellfield is ~80 feet; at the Airport Wellfield the decline is ~40 feet.
- Estimated effects that projected water level declines will have to production capacity of the wellfield(s).
- The model results may be used to evaluate changes to aquifer thickness in areas beyond the City Wellfields

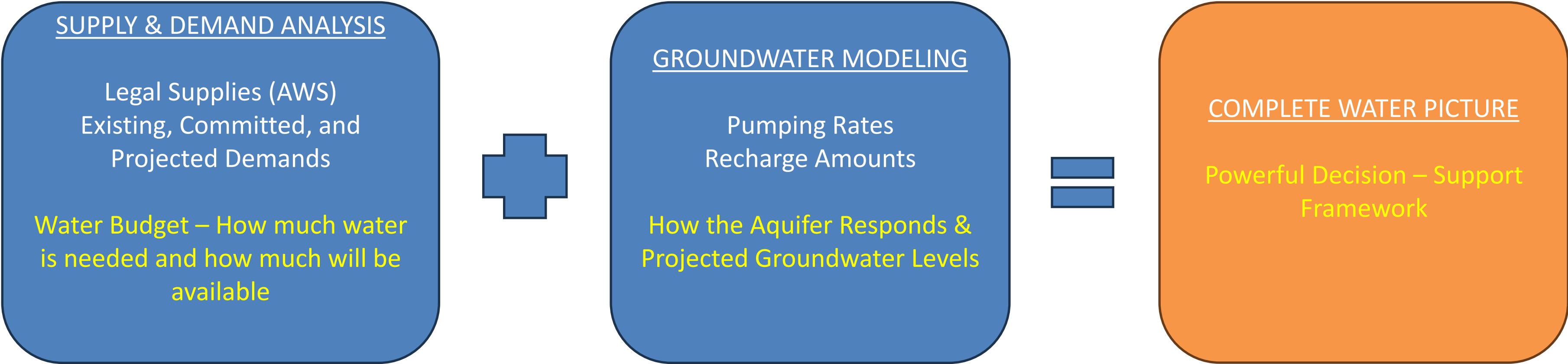
DRAFT – Technical Memo 5



ALTERNATIVE WATER SUPPLY

- A long-term supply of water for the City includes the legal authority to transport groundwater from wells in the Big Chino Sub-basin (BCS) into the Prescott AMA.
- Tech Memo 5 will present a high-level summary of hydrogeology in the BCS with emphasis on the City-owned Big Chino Water Ranch. It will include a 2024 groundwater level map and hydrographs for Index Wells with trendlines for the recent 10- to 15-year period of record.
- The memo will not discuss the BCS Model that is being developed for the Comprehensive Agreement No. 1 (CA1) Parties.

Analysis Summary



Plan Components

TECHNICAL MEMORANDUMS

City Baseline Conditions
Water Demand Projections
Water Demand Practices
Hydrogeology & Modeling
Big Chino Sub-basin Study

CHAPTER 1

EXECUTIVE SUMMARY
INTRODUCTION

Physical setting, regulatory environment, obligations, rate structure, and other water uses

CHAPTER 2

FLOW PROJECTIONS &
DEMAND MANAGEMENT

Efforts to defer cost on increasing water supply through reduced losses from infrastructure and improved efficiencies by customers

CHAPTER 3

INFRASTRUCTURE PLAN

Maximize utilization of current water supplies from potable water and wastewater infrastructure

CHAPTER 4

WATER SUPPLY OPTIONS

Evaluation of supplemental water supply through new airport wells, septic to sewer, stormwater, and lakes

Objectives

LONG-TERM WATER MANAGEMENT
PLAN

Provide direction on how the City should manage water demand and identify supplemental water supplies, while deferring the need to construct major additional water infrastructure

CLEAR & EASY TO UNDERSTAND

Tables
Figures
Maps
Photographs

RECOMMENDATIONS

Demand Management
Infrastructure Management
Supplemental Water
10-year Emphasis

STRATEGIC PLAN

By July 2027, through development of a LTWMP that includes focus on infrastructure, distribution and delivery, conservation, capacity, and safety, the community will experience safe potable water within the water service area boundary

Future Considerations

Work from the LTWMP will help future efforts such as:

- ✓ **Alternative Water Sources**
- ✓ **Emergency Preparedness**
- ✓ **Climate Adaptation**
- ✓ **Regional Coordination**



*Thank you for your time today,
Questions?*