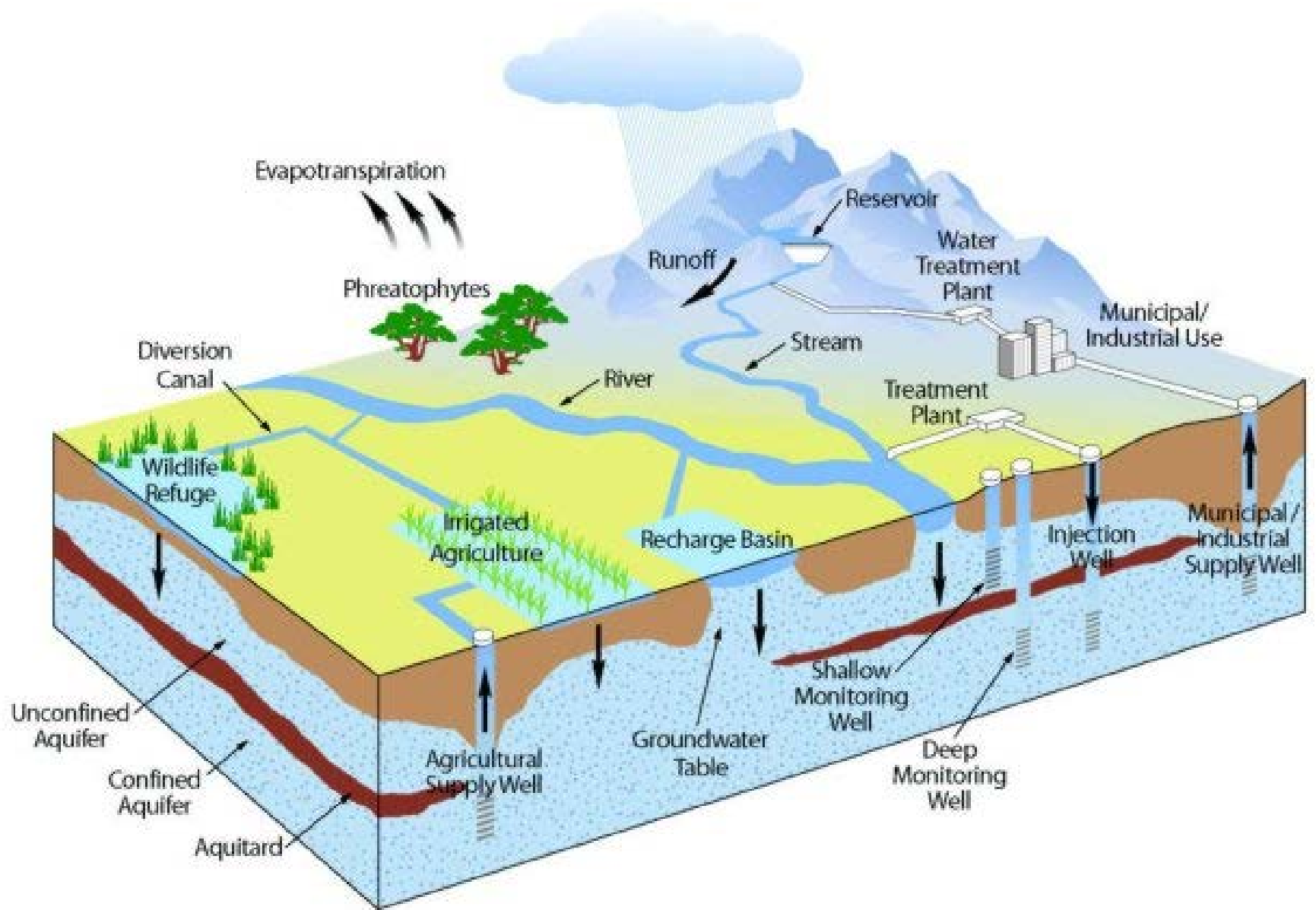


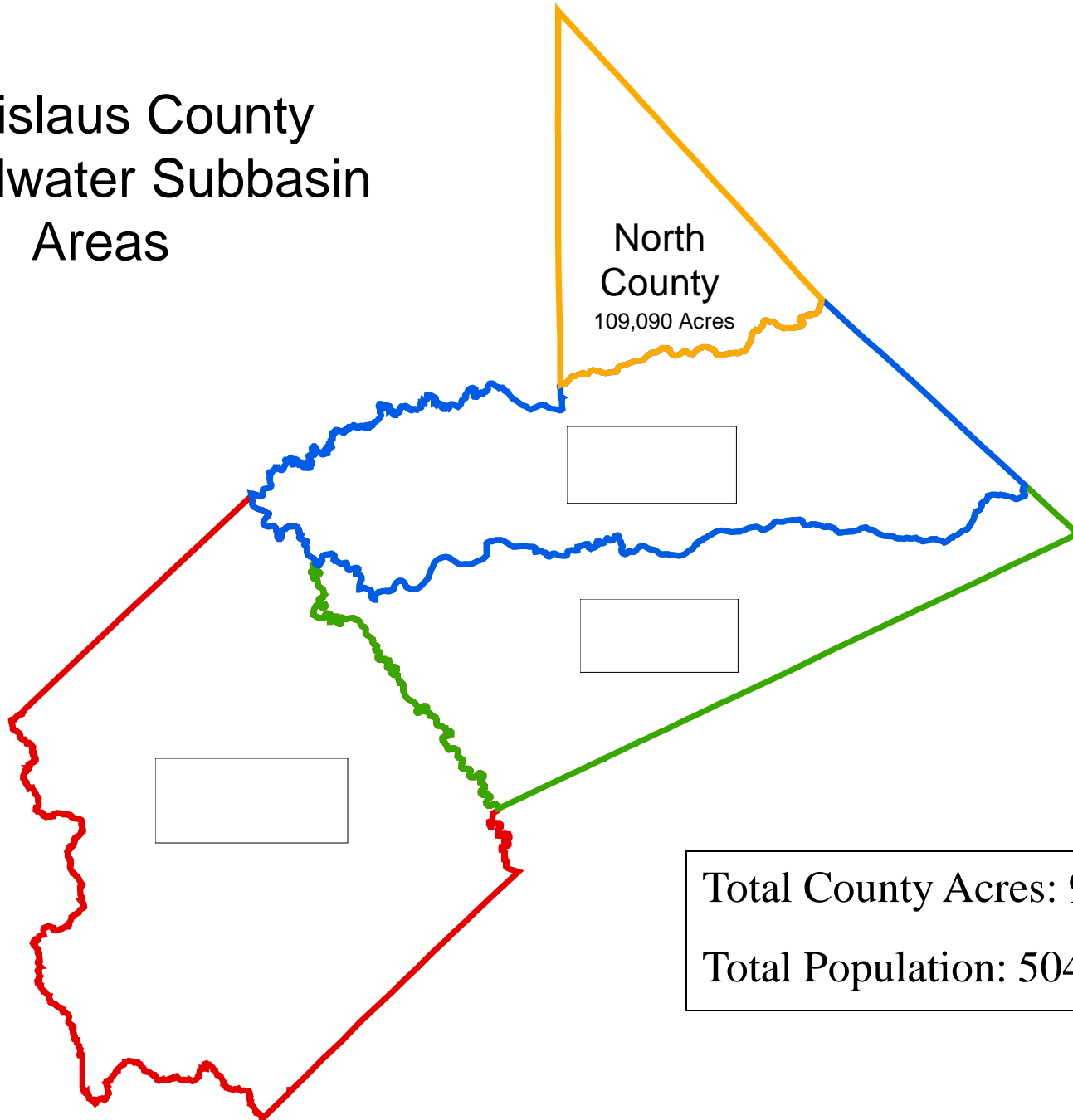
Stanislaus County Water Advisory Committee

100 Day Action Plan Thresholds & Monitoring Elements

April 10, 2014



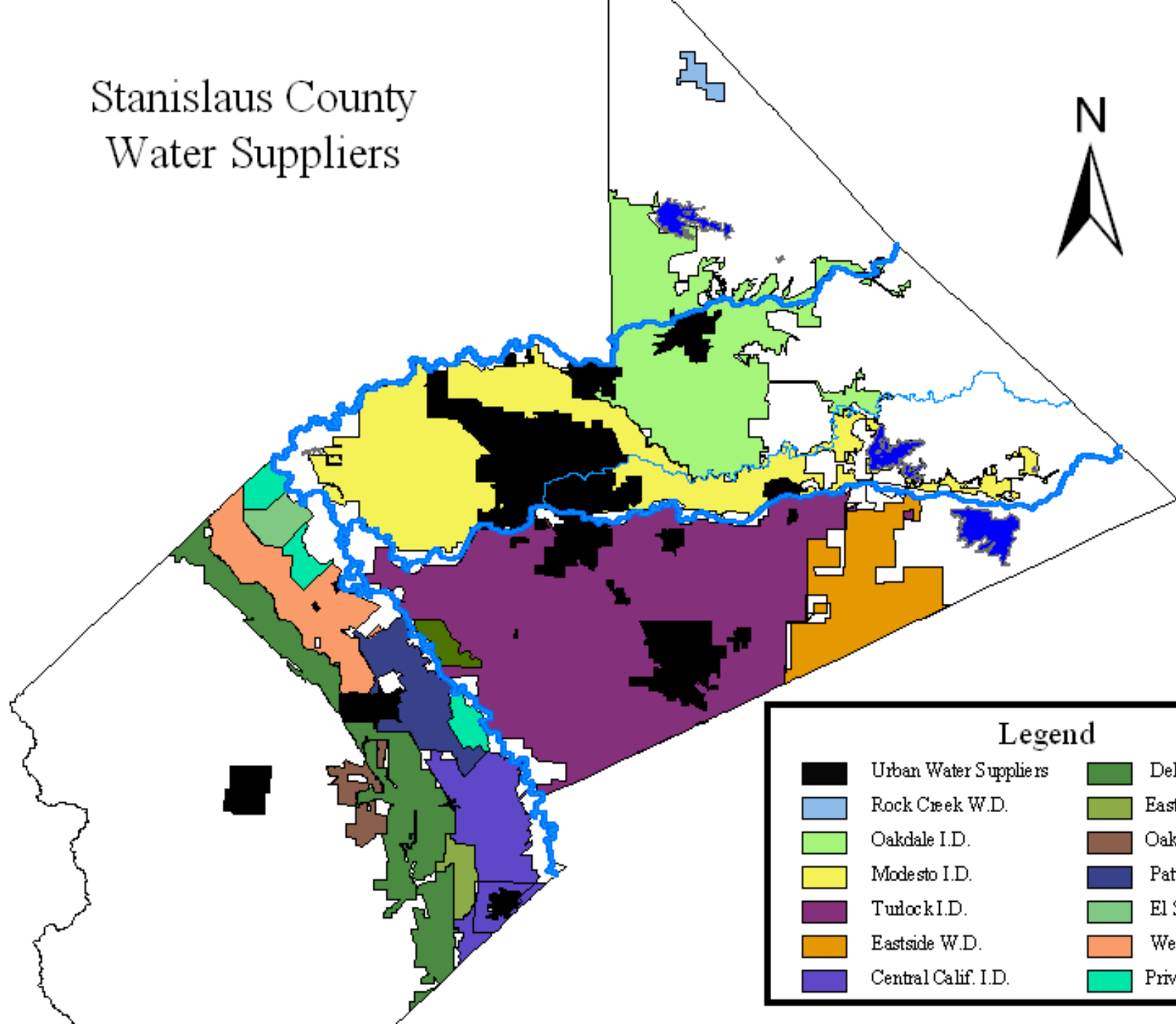
Stanislaus County Groundwater Subbasin Areas



North
County
109,090 Acres

Total County Acres: 971,971
Total Population: 504,478

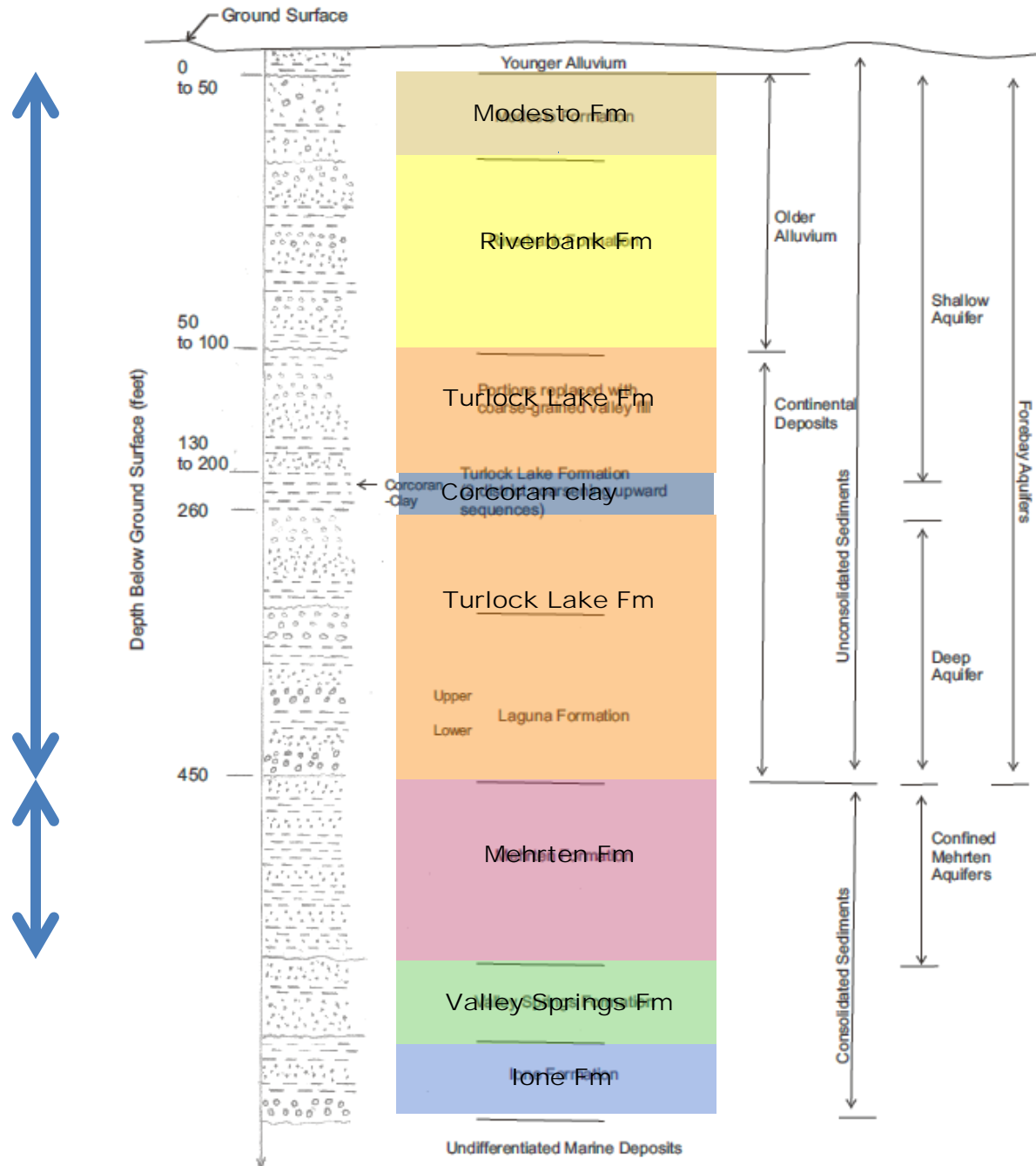
Stanislaus County Water Suppliers



Black	Urban Water Suppliers	Dark Green	Del Puerto W.D.
Light Blue	Rock Creek W.D.	Light Green	Eastin W.D.
Light Green	Oakdale I.D.	Brown	Oak Flat W.D.
Yellow	Modesto I.D.	Dark Blue	Patterson I.D.
Purple	Turlock I.D.	Light Green	El Solys W.D.
Orange	Eastside W.D.	Light Orange	West Stanislaus I.D.
Dark Purple	Central Calif. I.D.	Cyan	Private W.D.4

450 to 750 ft of saturated section

750 ft of saturated section



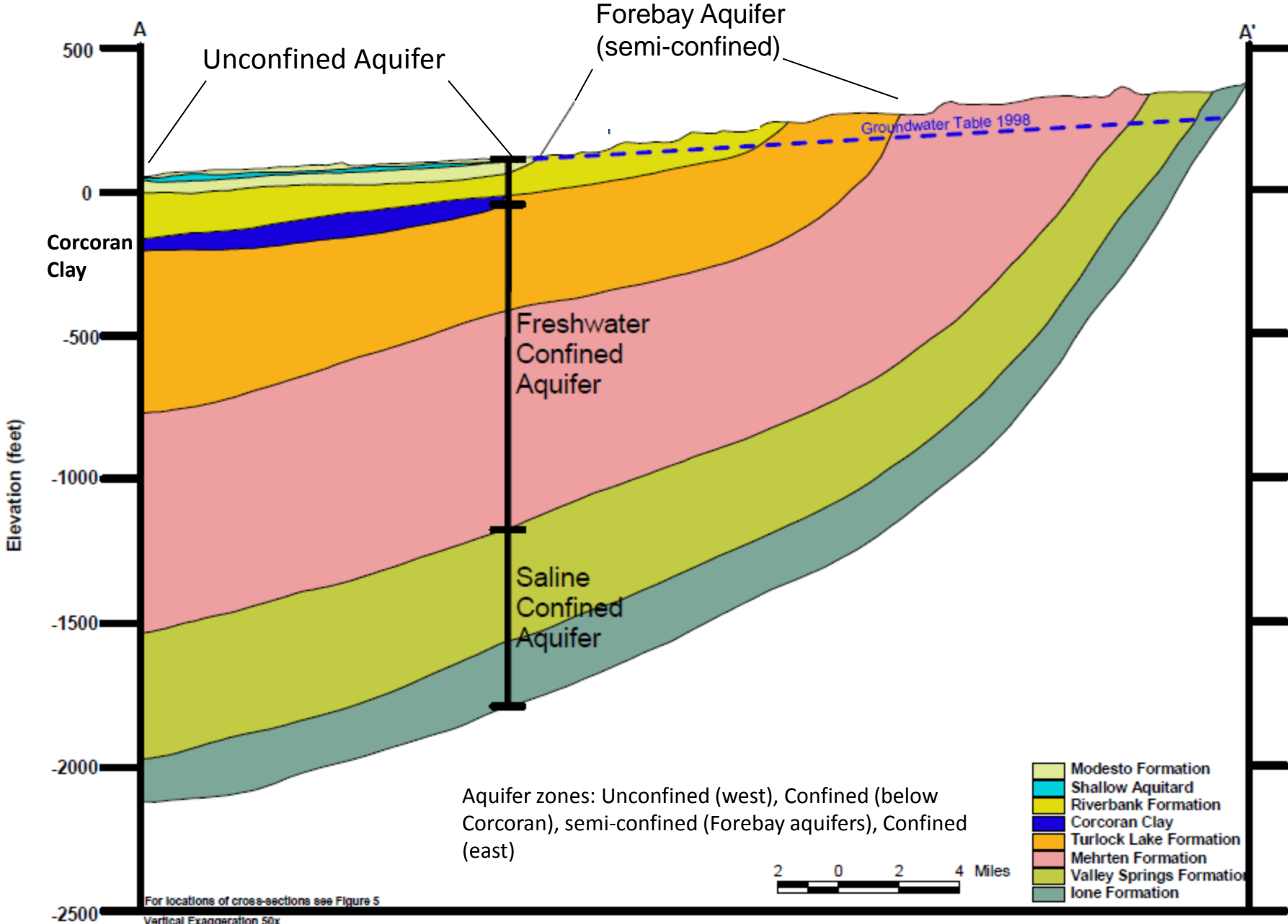


Figure 6 - East-West Cross-Section Showing Hydrogeologic Units within the Groundwater Basin

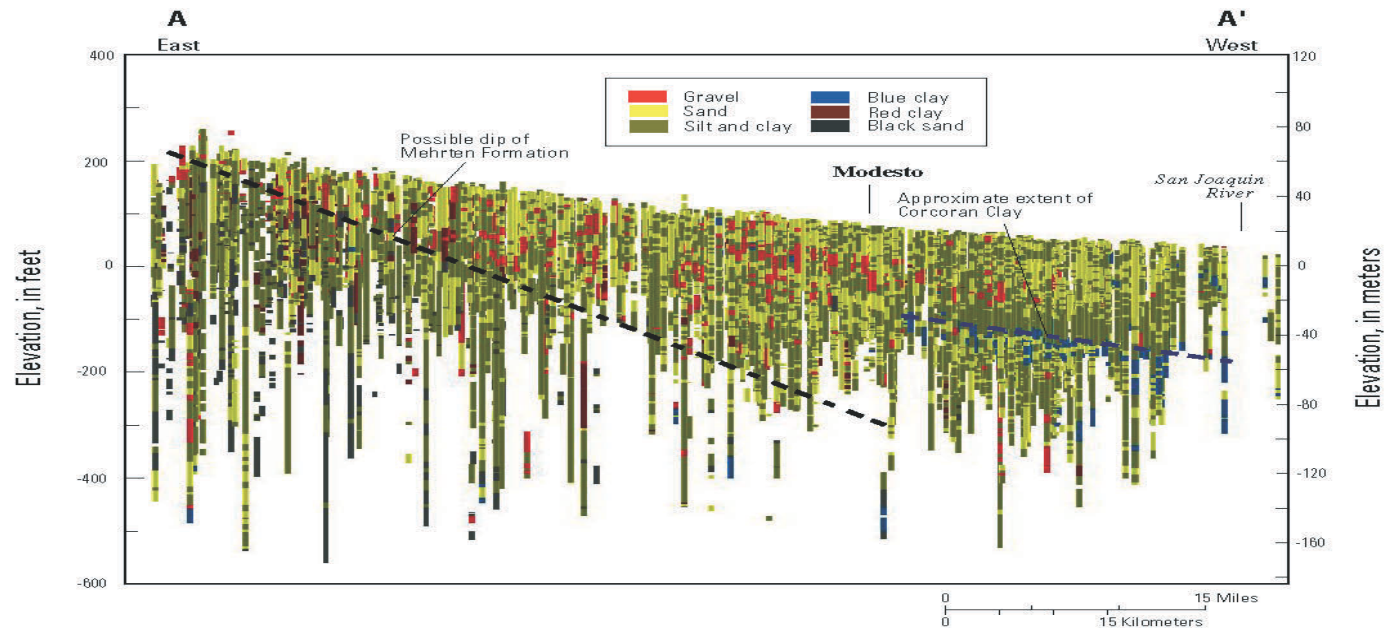


Fig 10_3169..Burow/Uyematsu/Gibson..4/23/04, 5/3

Thresholds

- Geographic Location
 - May be different for the Groundwater Management Planning (GMP) Areas
 - May be different for each of the four different aquifer systems
- Management Objectives
 - Compile from existing GMP's
 - Develop new objectives consistent with WAC recommendations – mining prevention level

Thresholds

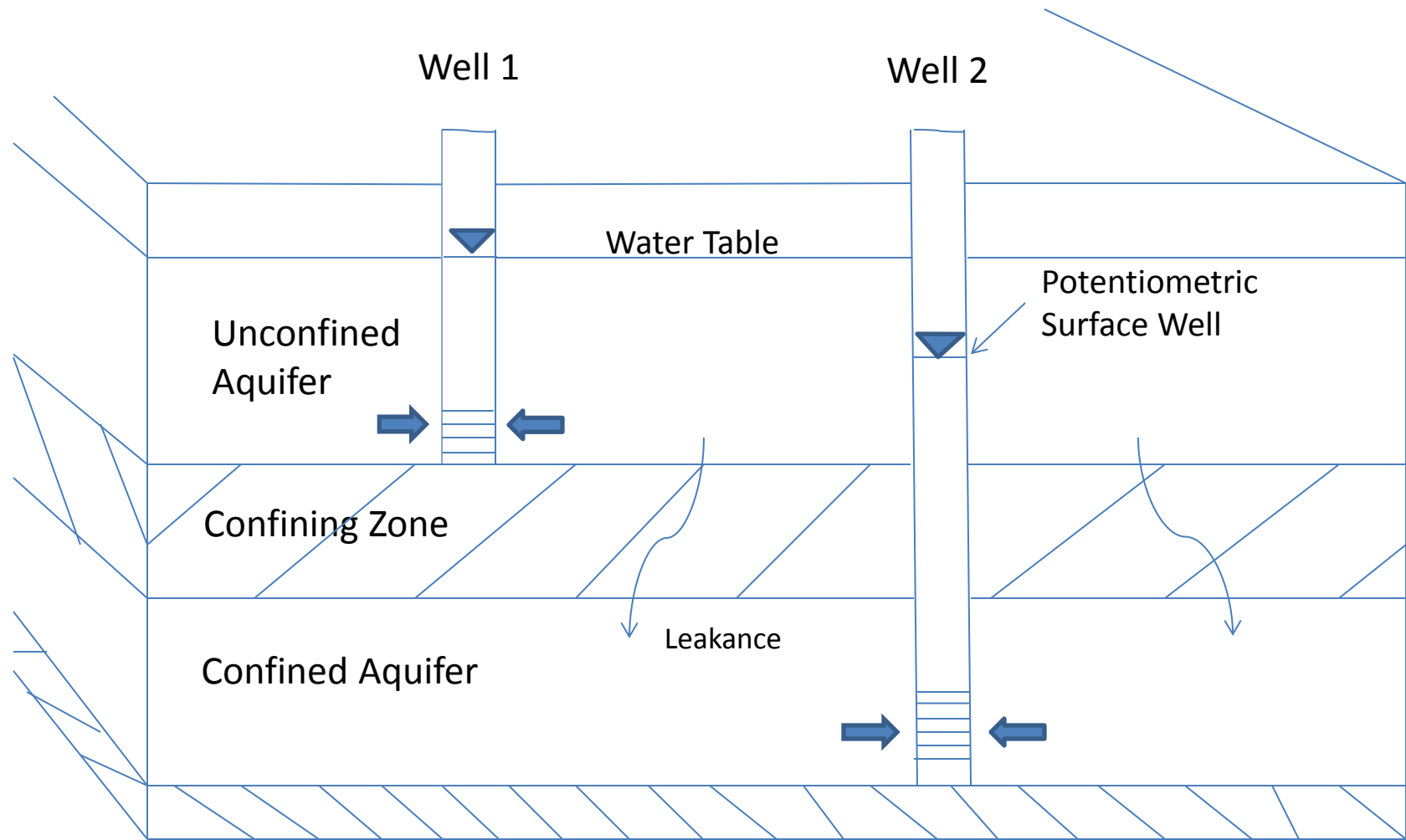
- Examples of existing Management Objectives:
 - Review of existing Groundwater Management Plans and Objectives
 - Update existing plans to bring into compliance with existing statutes and directives
 - Update Groundwater Management Plans **and adopt for areas within the County that are not covered by another agency or plan.**
 - Maintain groundwater levels
 - Recognize that groundwater levels fluctuate over wet/dry cycles
 - Review long-term trends and use statistical analysis methods as an evaluation and management tool
 - Control degradation of groundwater quality and movement of contaminants
 - Protect against potential inelastic land surface subsidence, where of concern
 - Groundwater monitoring and assessment
 - Water Quality and Quantity (water level & extraction)

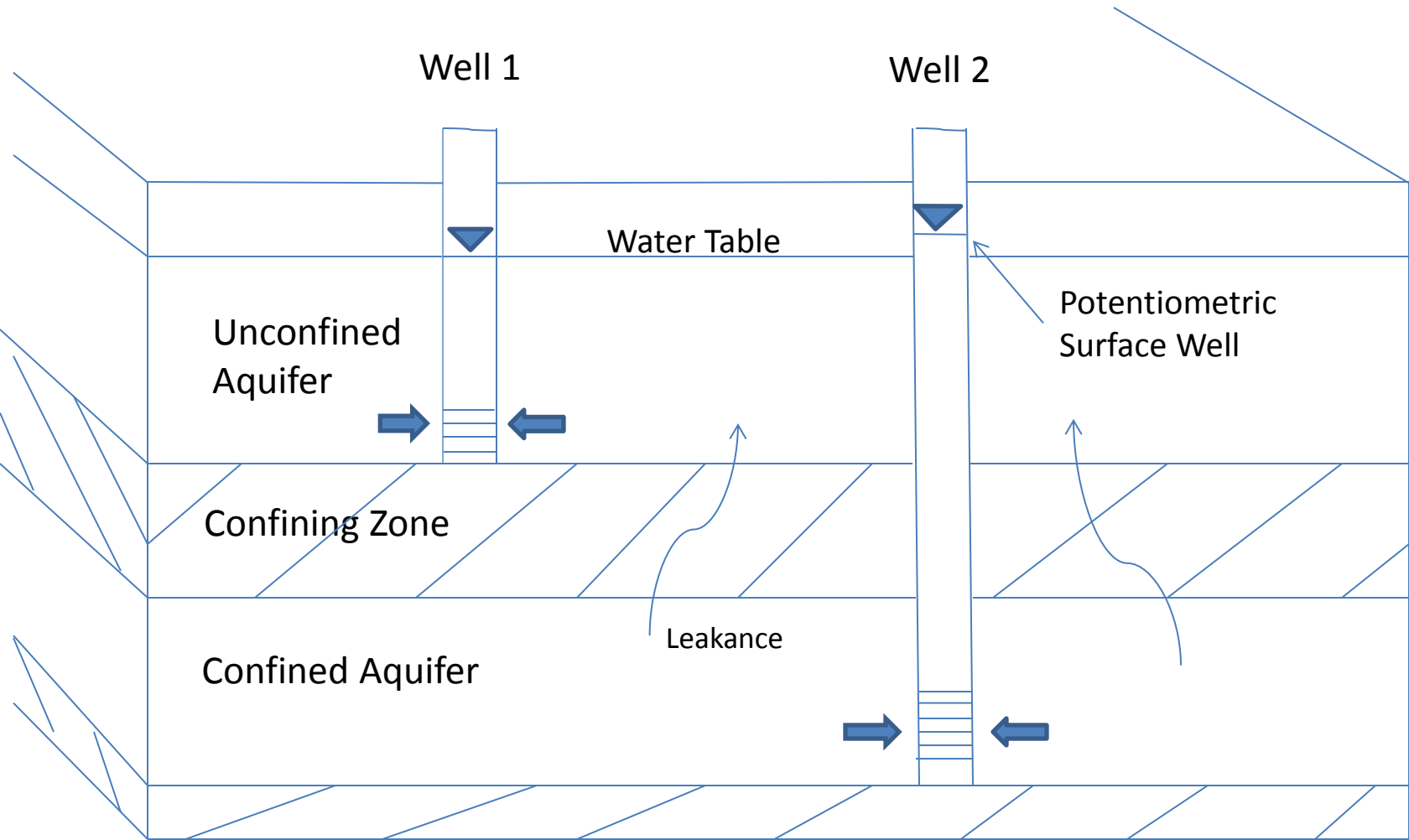
Thresholds

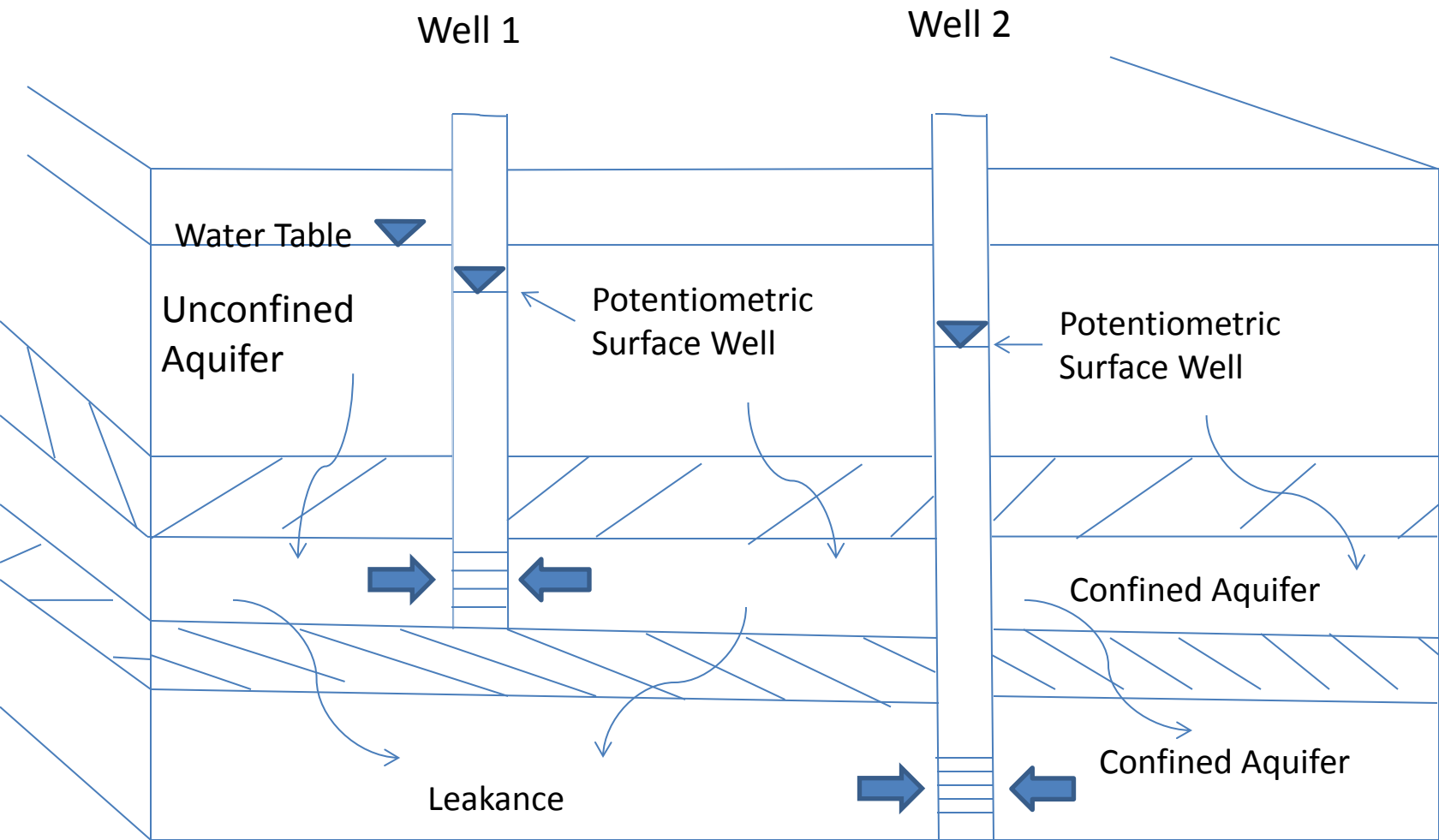
- Examples of existing Management Objectives:
 - Evaluate feasible water conservation measures
 - Evaluate ways to maximize existing supplies
 - Feasibility of conservation measures & water supply impacts
 - Facilitate infrastructure to enhance conjunctive use operations
 - Evaluate stormwater capture and potential for groundwater recharge
 - Wastewater reuse potential as secondary supply source
 - Foster coordination and cooperation across institutions
 - Education and Outreach
 - Refinement of existing groundwater mining and export ordinance as determined practical and necessary in areas of concern
 - Public Education and Outreach

Groundwater Monitoring

- Water Level Measurement and Reporting
- Use existing CASGEM entities (expand coverage)
- Benefits of monitoring groundwater levels:
 - Determine annual and long-term changes of groundwater in storage
 - Determine recharge rates
 - Determine direction and gradient of groundwater flow and circulation
 - Understand the response of the aquifer system(s) to stresses such as groundwater withdrawals
 - Gain insight for improved well construction (screening interval) and where to set pump intake bowls for efficient extraction

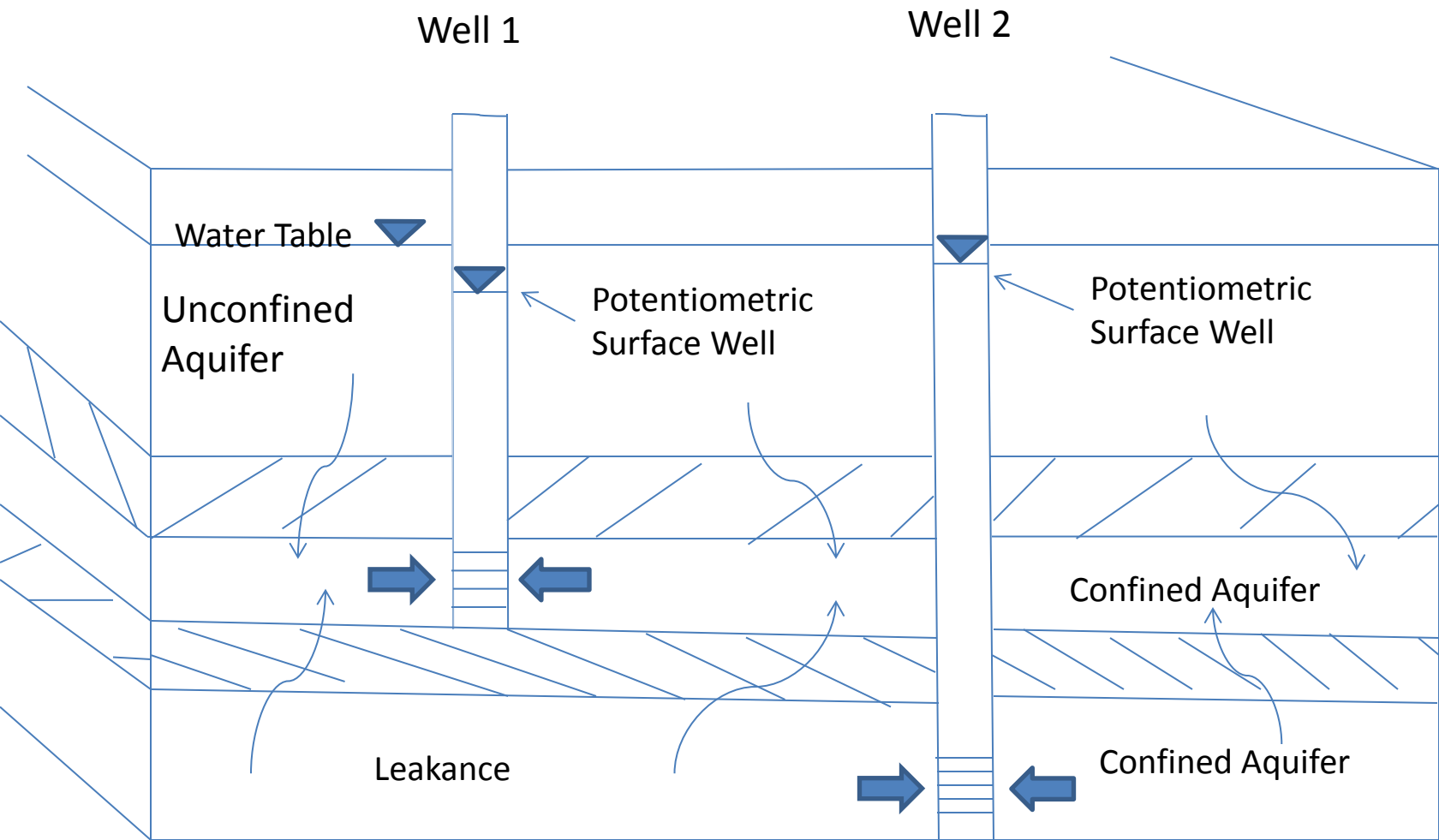






Confined
Aquifer

Confining
Zone

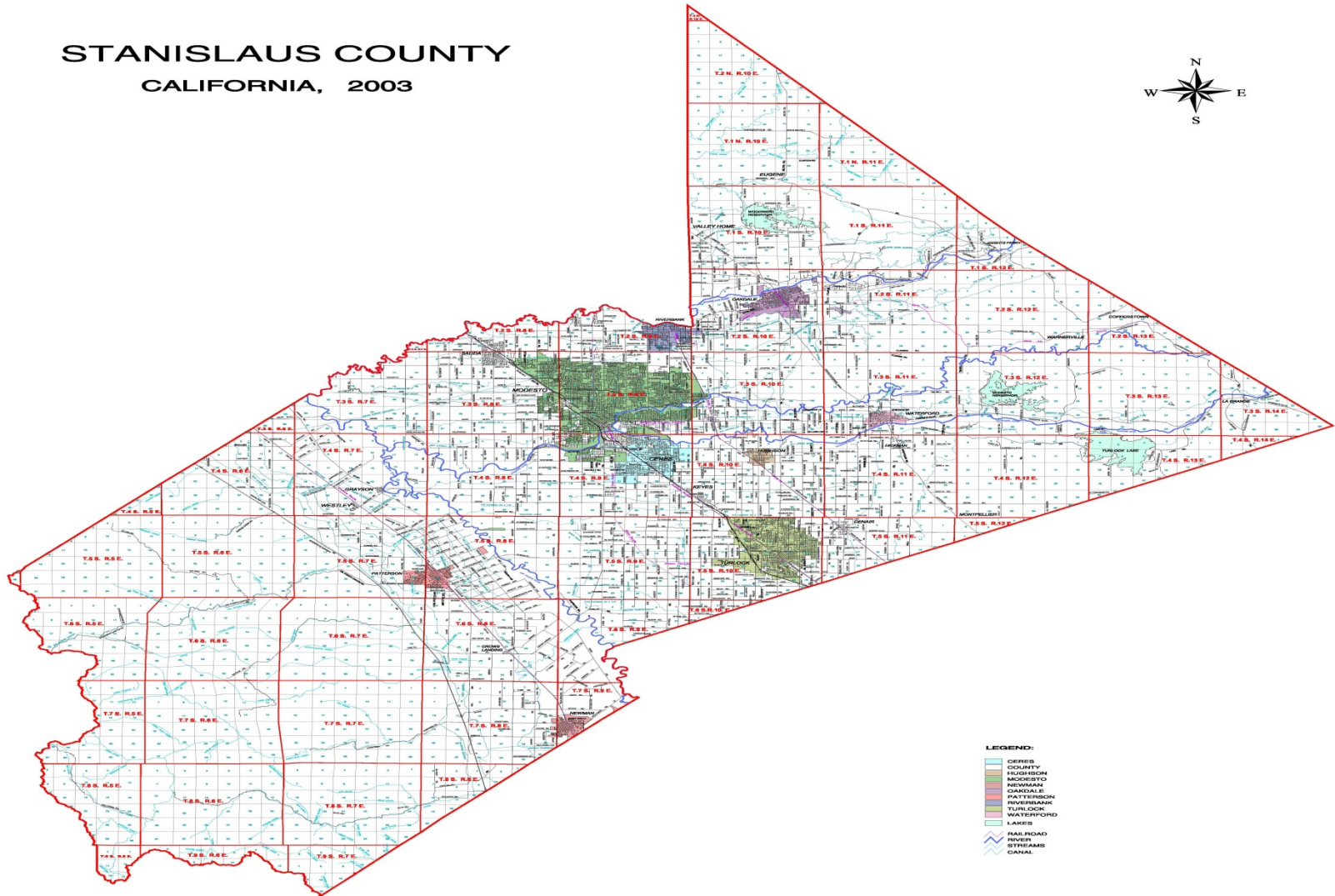


Groundwater Monitoring

- Withdrawal Data (Extraction)
 - Benefits of monitoring and collecting groundwater pumping information:
 - Determine annual and long-term changes of groundwater in storage
 - Understand the hydrodynamic response of the aquifer system(s) to inputs and outputs
 - Improve groundwater modeling forecasting ability and reliability
 - Aggregate monthly data to no smaller than 40 acre blocks (uniformity with groundwater modeling)
 - Exemption for smaller users such as domestic and small agricultural similar to Groundwater Ordinance

STANISLAUS COUNTY

CALIFORNIA, 2003



- LEGEND:**
- CERRIS COUNTY
 - COLUSA COUNTY
 - FRESNO COUNTY
 - MARIPOSA COUNTY
 - SACRAMENTO COUNTY
 - SUTTER COUNTY
 - YUBA COUNTY
 - RIVERSIDE COUNTY
 - BUTTE COUNTY
 - WATERFORD
 - LAKES
 - RAILROAD
 - HIGHWAY
 - STREAMS
 - CANAL

Range 10 East

Township 3 South

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Well No. 3S10E36ab

¼ Section

b	a
c	d

b	a
c	d

Section 36

NEXT STEPS

- April 30th @ 9:00 AM Alliance Center
 - Complete Thresholds & Monitoring; including recommendations for consideration of submittal to BOS
 - Review Governance, Funding & Enforcement elements
 - Review Groundwater Ordinance provisions and process for implementation