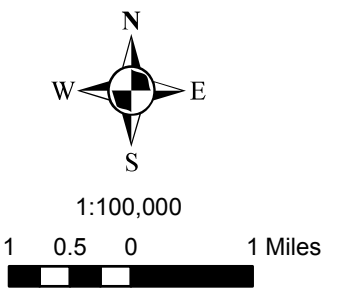


**Legend**

- Basin Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Approximate Alluvial Boundary
- Stream
- Recharge Area
- Treatment Plant
- Gauge Location

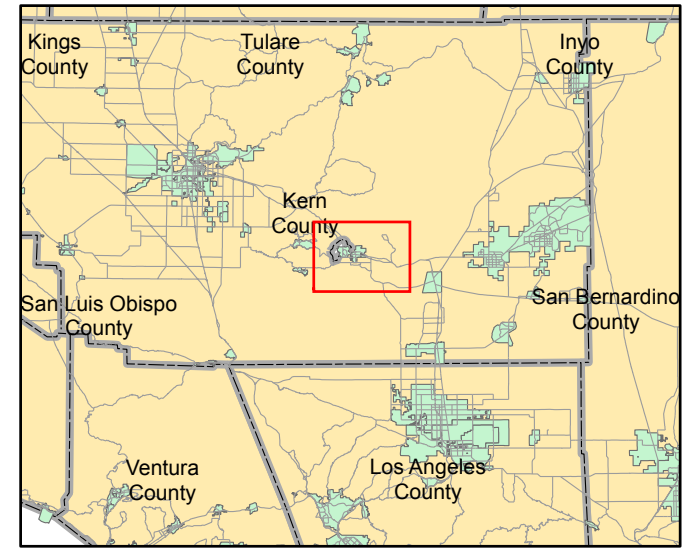
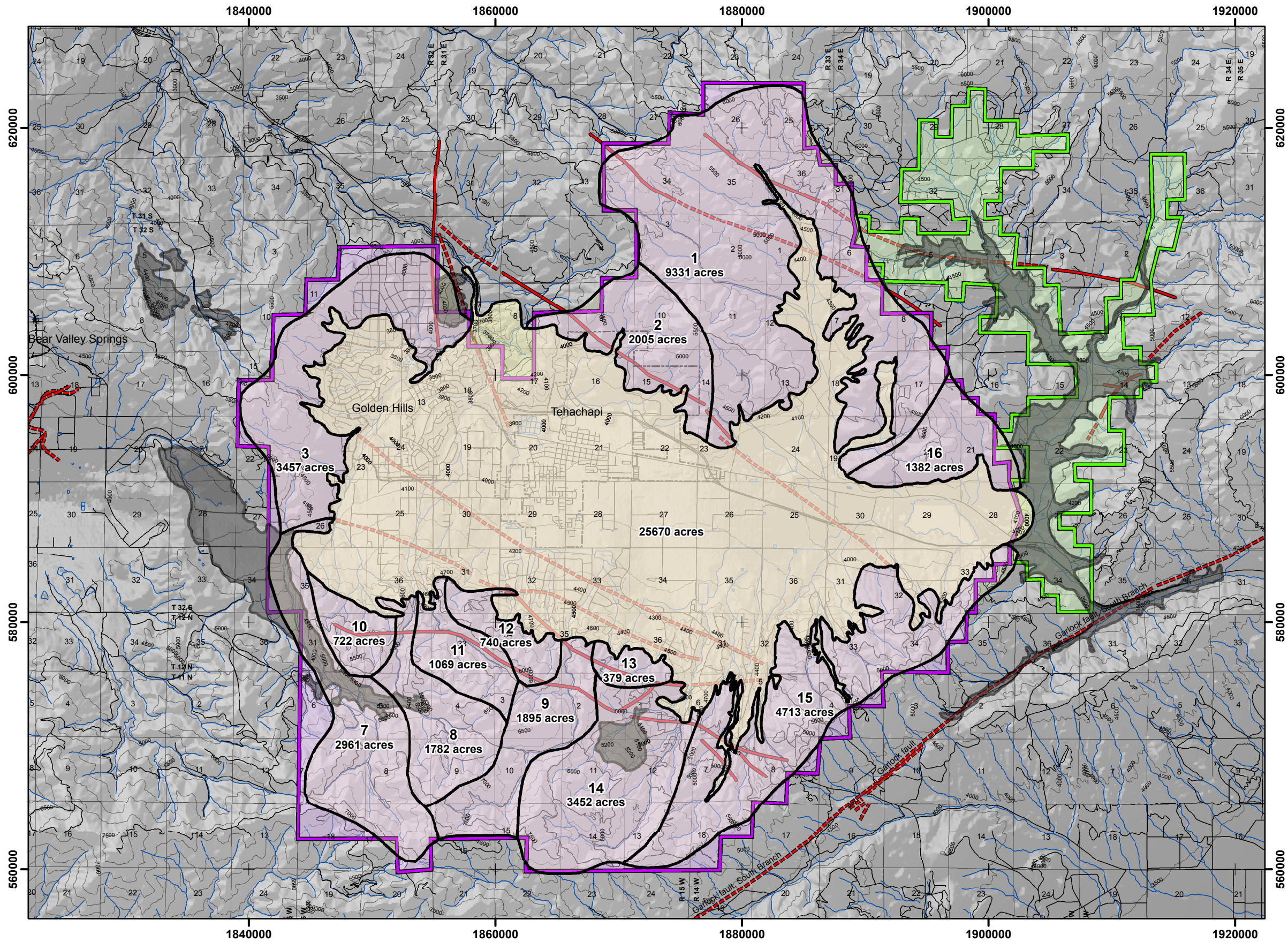
Grid tics: NAD 27, California State Plane, Zone 5, feet



**TEHACHAPI BASIN LOCATION MAP**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_TehachapiCummingsCWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate01-LocationMap.mxd, 11/14/06, cbutter





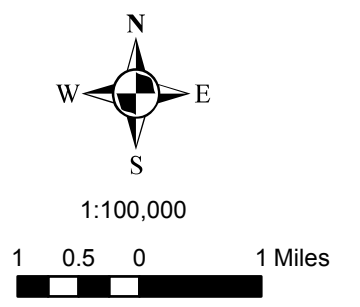
**Legend**

- Tehachapi Basin Watershed
- Sand Canyon Area
- Alluvium
- Alluvium Outside Basin Area
- Subbasin with approximate acreage
- Township-Range
- Fault (approximate)
- Stream

**Sub-Watershed Units**

1. White Rock
2. Loop
3. Old Town
7. East Brite
8. Water Canyon
9. Lime Kiln
10. Iriart
11. Pine Tree
12. Cook
13. Wyman
14. Blackburn
15. Mendiburo
16. Monolith

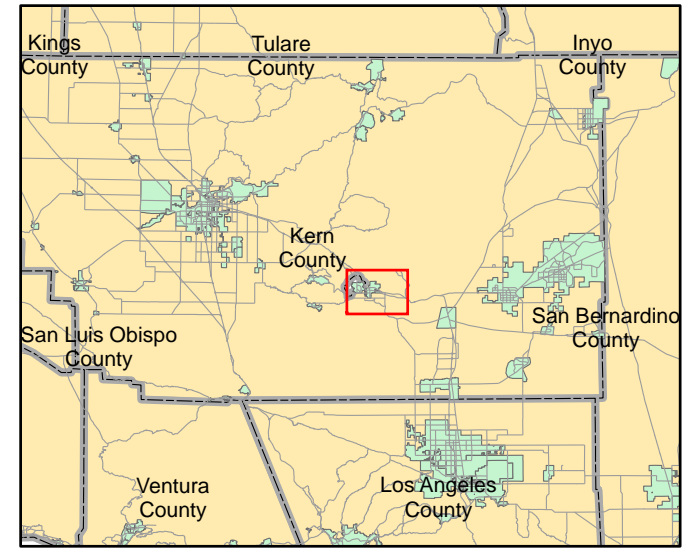
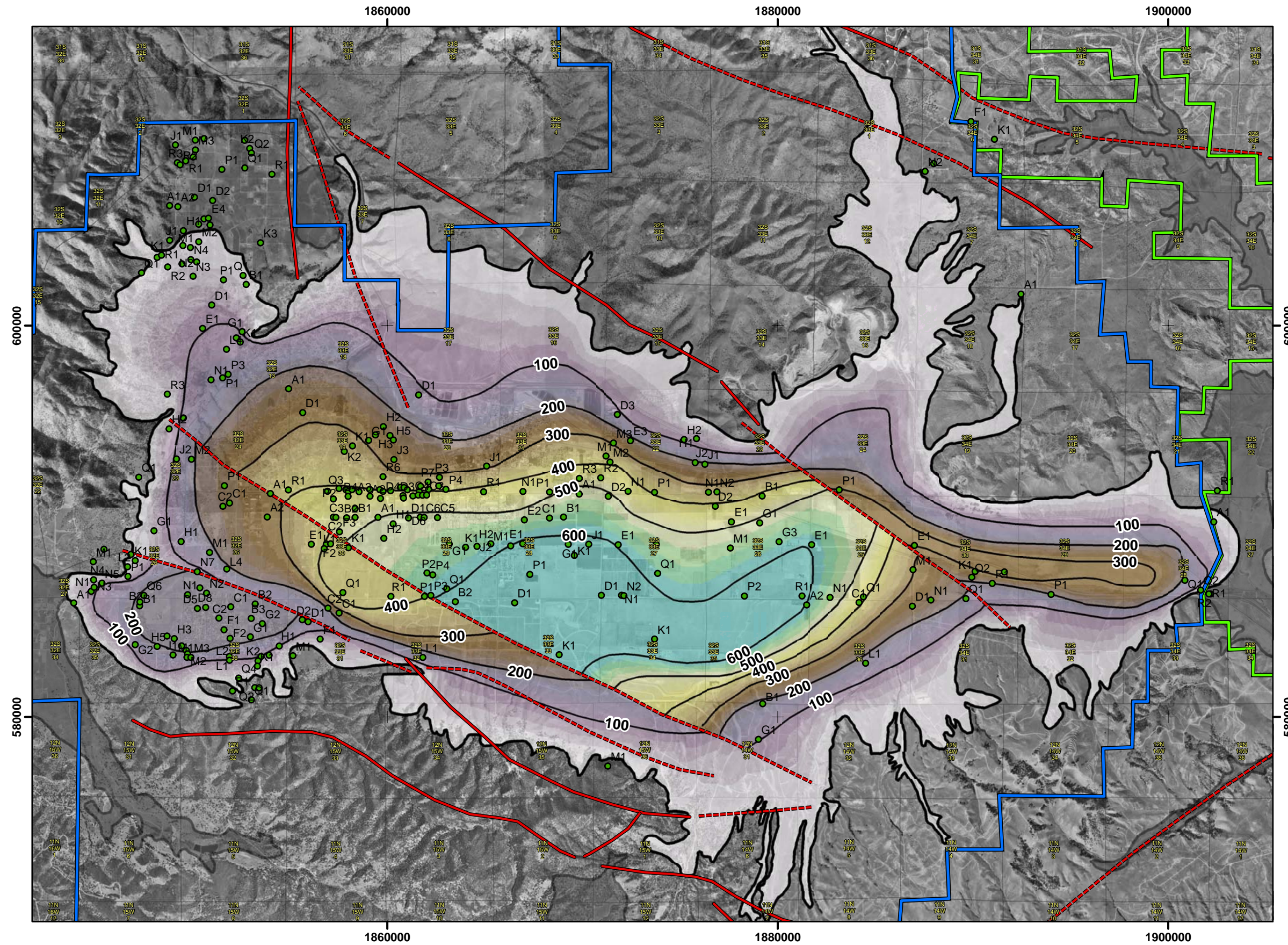
Grid tics: NAD 27, California State Plane, Zone 5, feet



**TEHACHAPI SUB-WATERSHEDS**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\CWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate02-SubWatershed.mxd, 11/01/06, cbutler

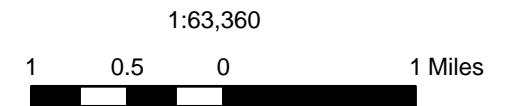




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- Alluvial Isopach (Thickness) Contours
- Well Location

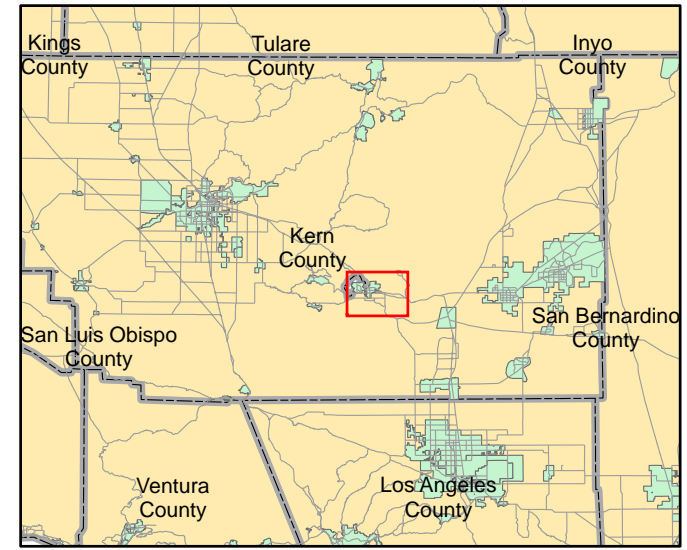
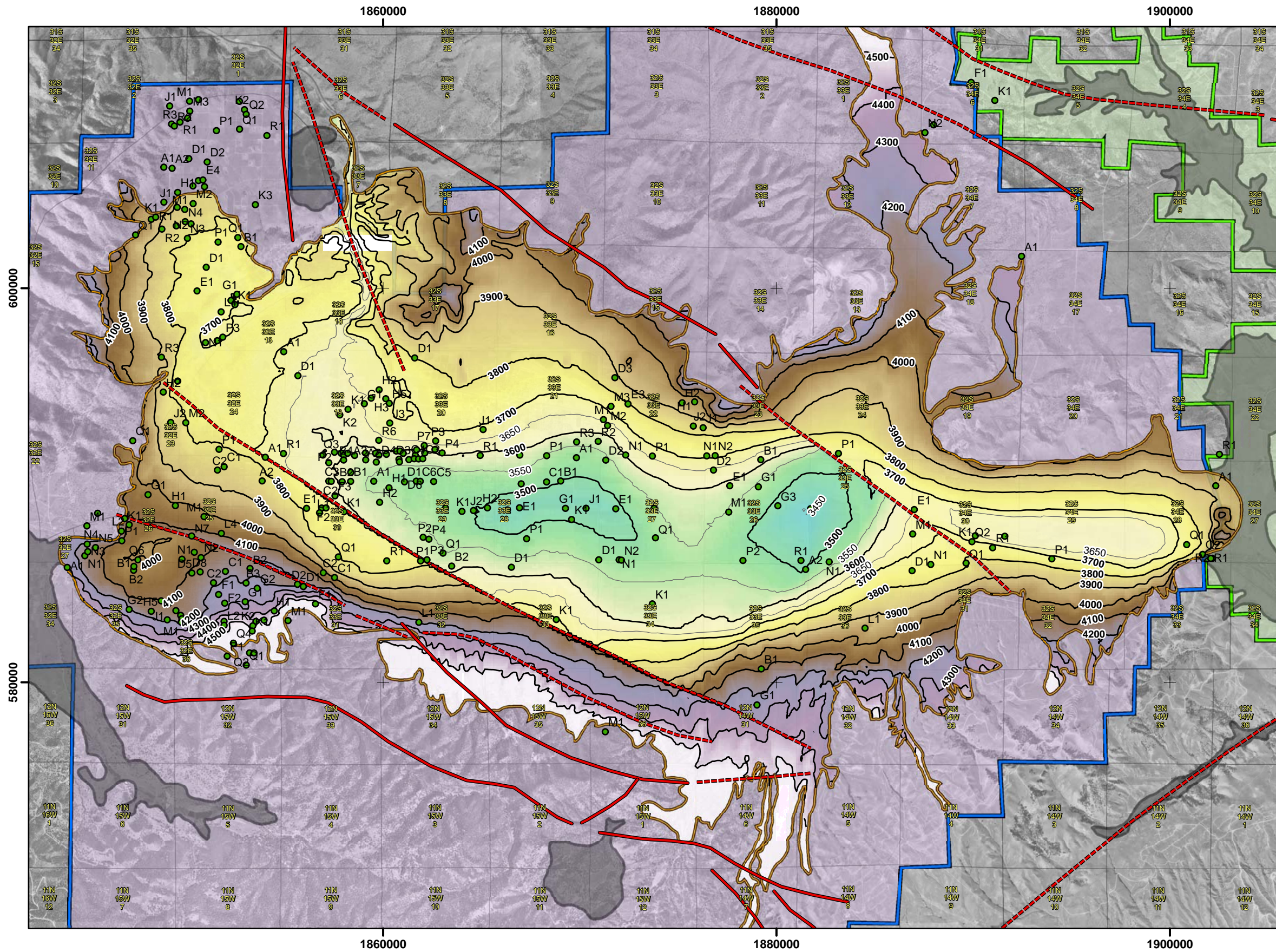
Grid tics: NAD 27, California State Plane, Zone 5, feet



**DEPTH TO BASE OF ALLUVIUM**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi-CummingsCWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate03-DepthToAlluvium.mxd, 11/02/06, coultler

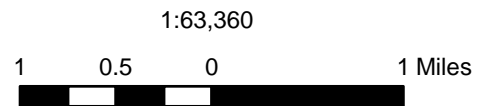




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- Base of Alluvium Elevation Contours (feet)
- Well Location

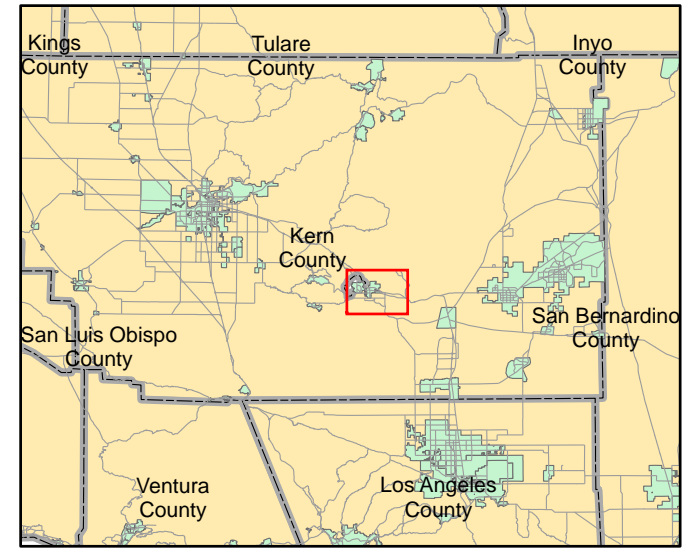
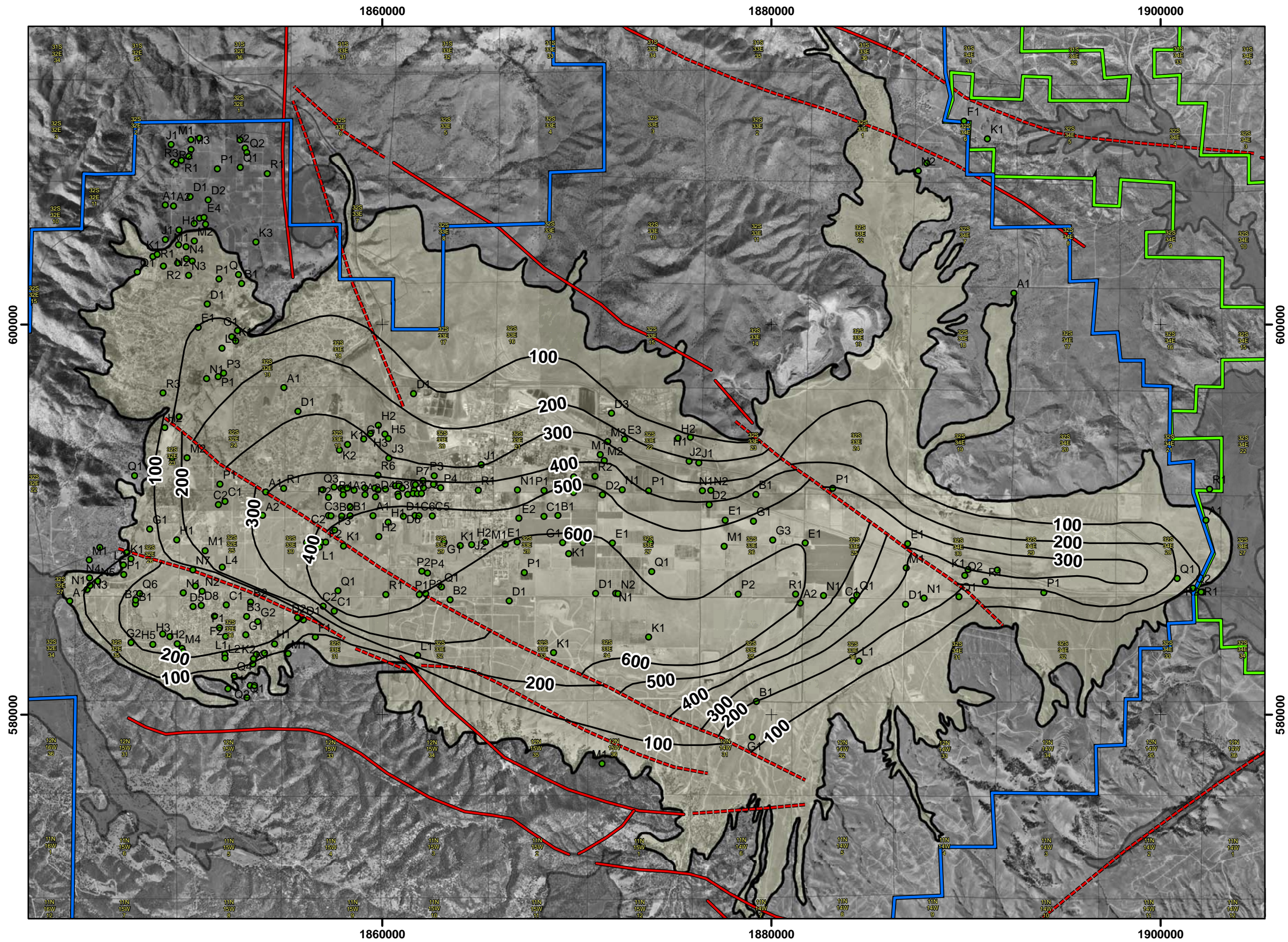
Grid tics: NAD 27, California State Plane, Zone 5, feet



**ELEVATION OF BASE OF ALLUVIUM**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_TehachapiCummingsCWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate04-ElevBaseAlluv.mxd, 11/14/06, cbuller

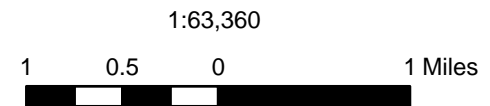




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- Base of Weathered Bedrock Depth Contours (feet)
- Well Location

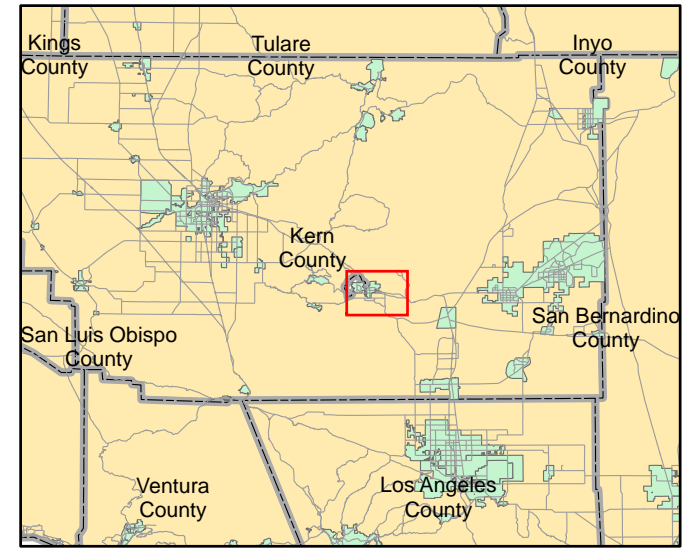
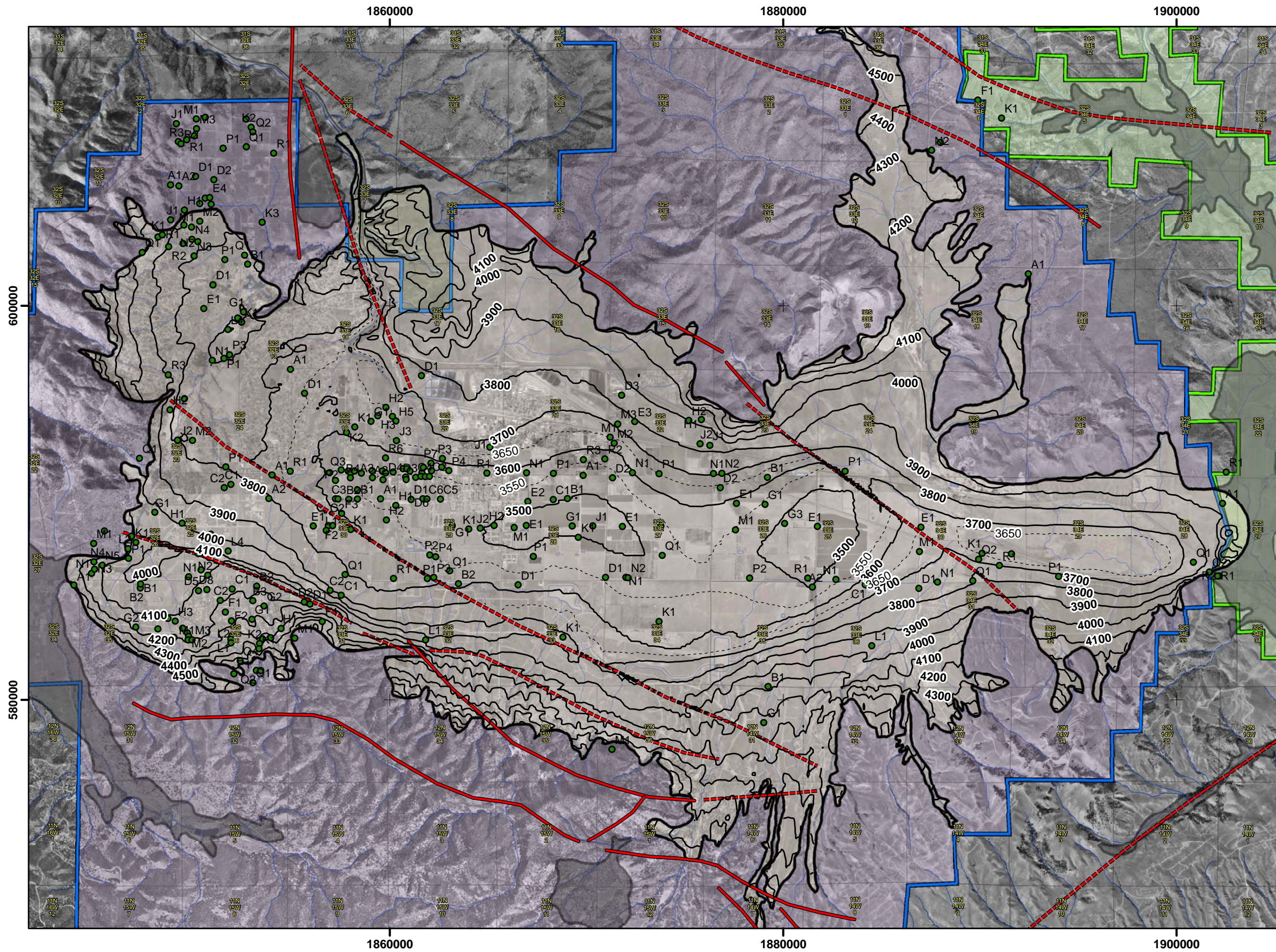
Grid tics: NAD 27, California State Plane, Zone 5, feet



**DEPTH TO BASE OF WEATHERED BEDROCK**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi-Cummings\3267-003\_TehachapiBasinModel\Outputs\Working\Plate05-DepthToWBedrock.mxd, 11/06/06, cbutler

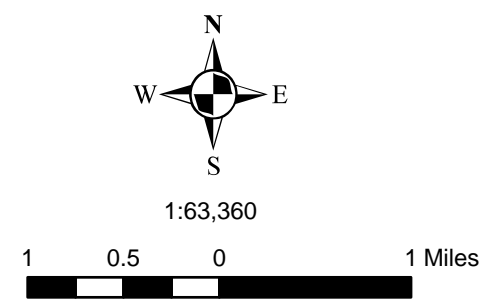




**Legend**

- Basin Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults
- 3500- Base of Weathered Bedrock Elevation Contours

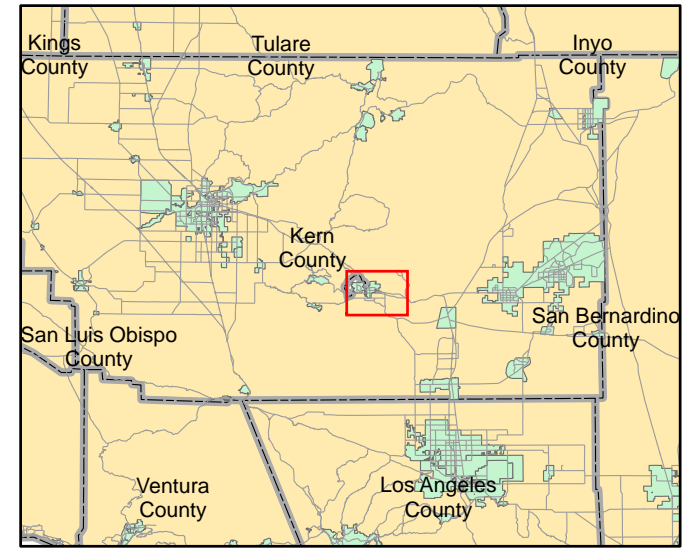
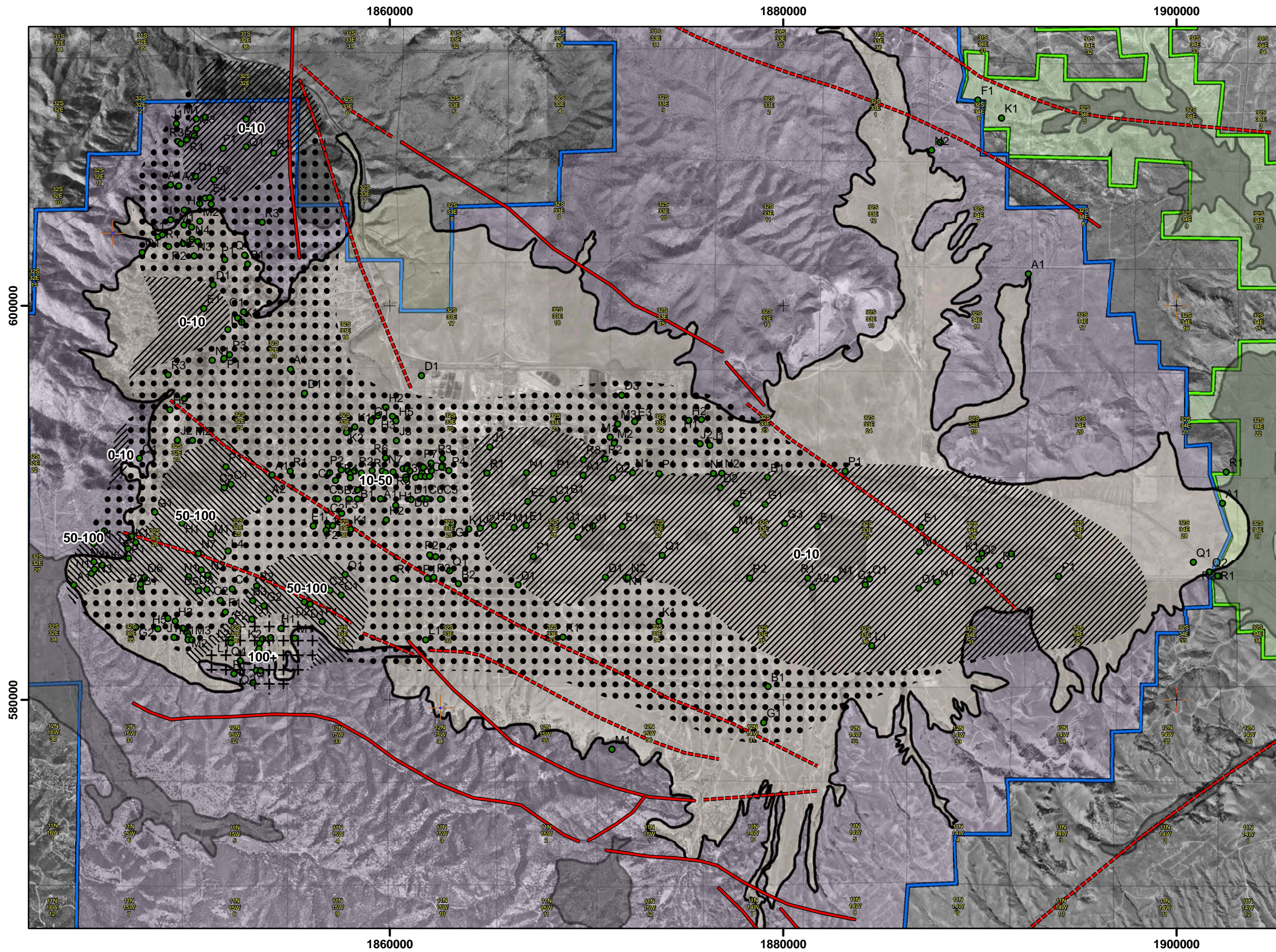
Grid tics: NAD 27, California State Plane, Zone 5, feet



**ELEVATION OF BASE OF WEATHERED BEDROCK**  
Tehachapi Basin Analysis  
Tehachapi, California

N:\Projects\3267\_TehachapiCummingsCWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate06-ElevBedrock.mxd, 11/13/06, cbutter

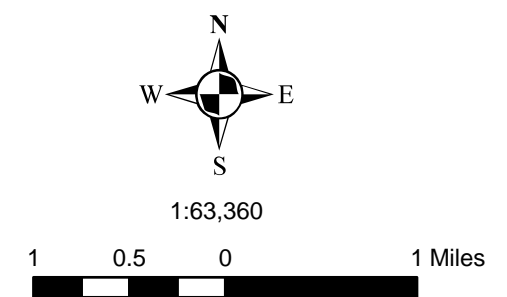




**Legend**

Alluvial Boundary	Weathered Bedrock Thickness (feet) 0-10
Tehachapi Basin Watershed	10-50
Sand Canyon Area	50-100
Township-Range	100+
Faults (approximate)	

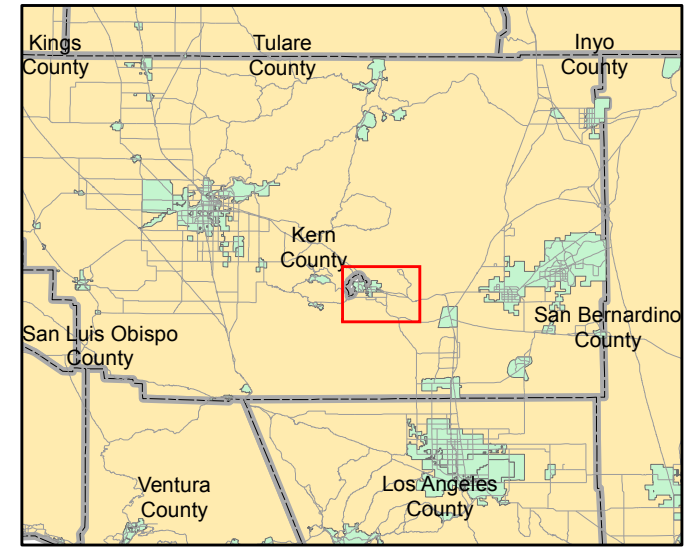
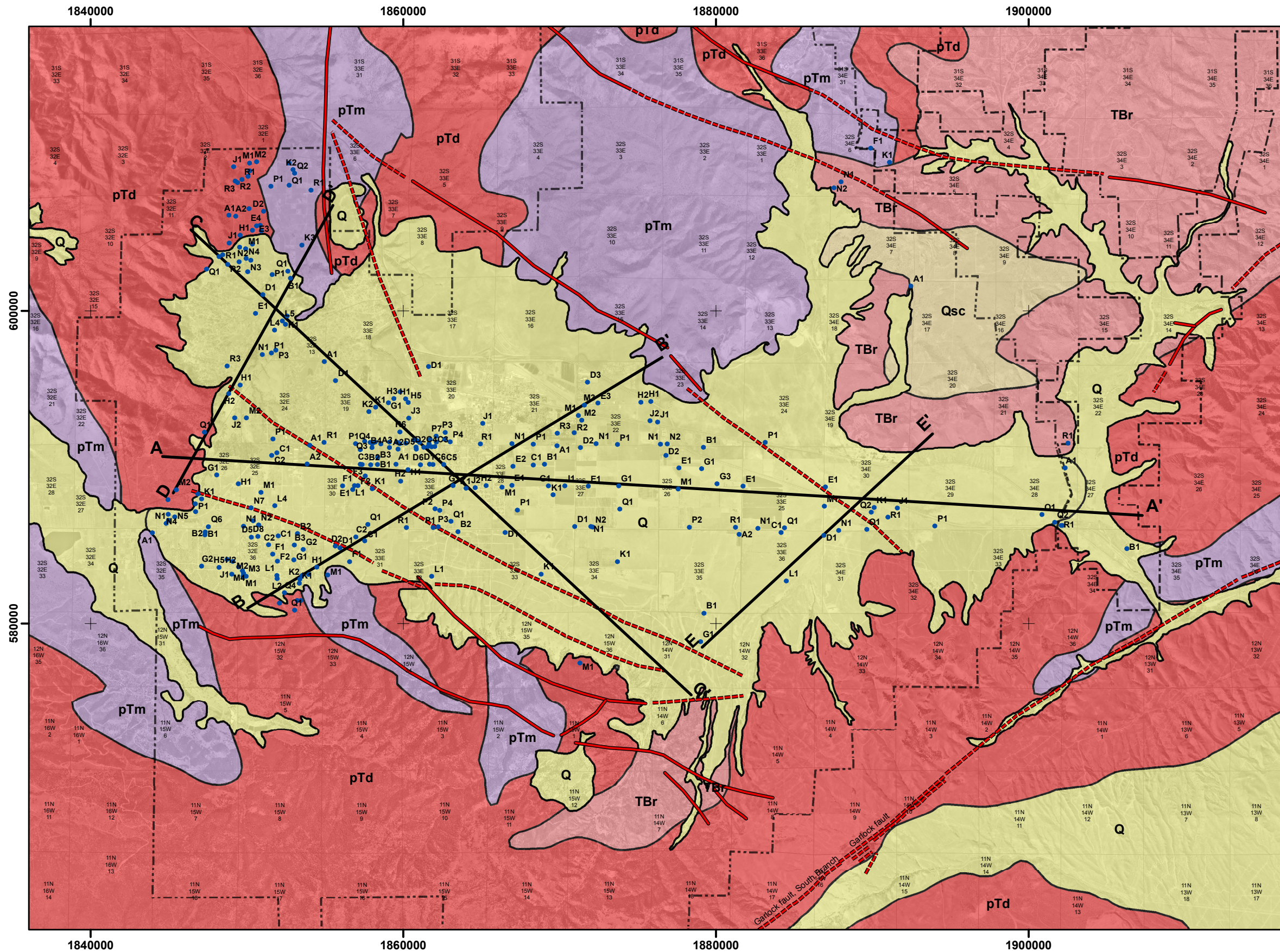
Grid tics: NAD 27, California State Plane, Zone 5, feet



**WEATHERED BEDROCK THICKNESS**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\CummingsCWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate07-BedrockThickness.mxd, 10/30/06, cbutter

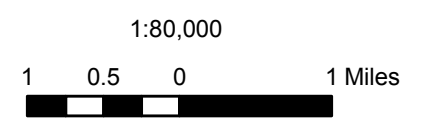
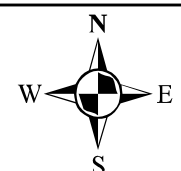




**Legend**

<b>Geologic Units</b>	<b>Other Features</b>
<p>Quaternary</p> <ul style="list-style-type: none"> <li>Q Quaternary Alluvium (Qaf - Alluvial Fan Deposits, Qoa - Older Alluvium, Qfs - Finer Stream Deposits/ Flood Plain Deposits)</li> </ul> <p>Tertiary</p> <ul style="list-style-type: none"> <li>Qsc Sand Canyon Formation</li> </ul> <p>Pre-Tertiary</p> <ul style="list-style-type: none"> <li>pTd Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite</li> <li>pTm Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives</li> </ul>	<ul style="list-style-type: none"> <li>Tehachapi Basin Watershed</li> <li>Sand Canyon Area</li> <li>Township-Range</li> <li>Cross Section</li> <li>Fault (approximate)</li> <li>Well</li> </ul>

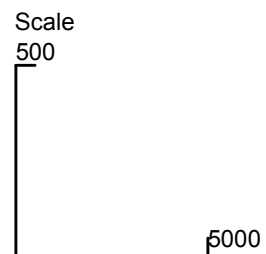
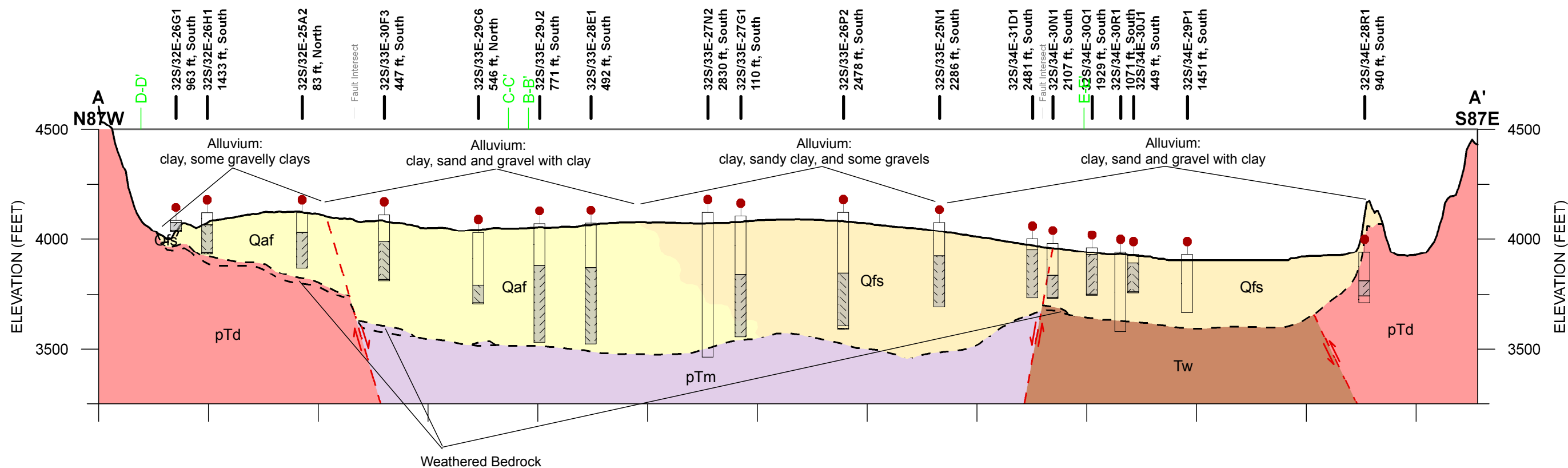
Grid tics: NAD 27, California State Plane, Zone 5, feet



**TEHACHAPI BASIN GEOLOGY AND CROSS SECTION LOCATION MAP**  
Tehachapi Basin Analysis  
Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\Working\mxd\Plate08-Geol\_XSectLoc.mxd, 01/17/07, cbutter

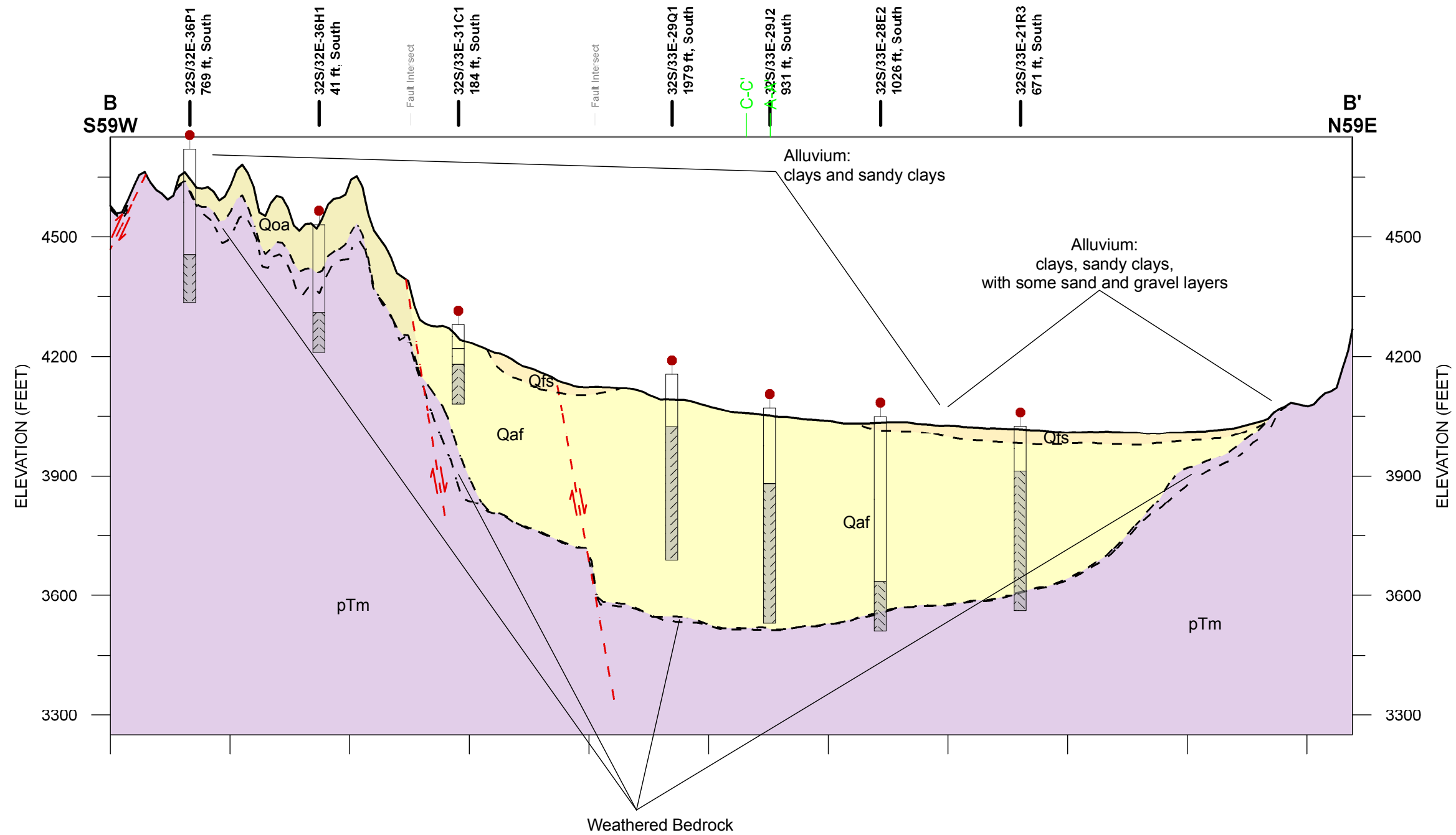




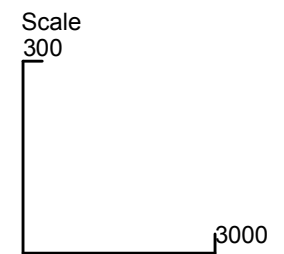
LEGEND			
Well	Quaternary Geology	Tertiary Geology	Pre-Tertiary Geology
	Alluvial Fan Deposits	Bedrock (Winet Formation)	Bedrock (Winet Formation)
	Alluvial Stream Deposits and Flood Plain Silts		Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite
	Older Alluvium		Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives

**SUBSURFACE CROSS SECTION A-A'**  
Tehachapi Basin Analysis  
Tehachapi, California





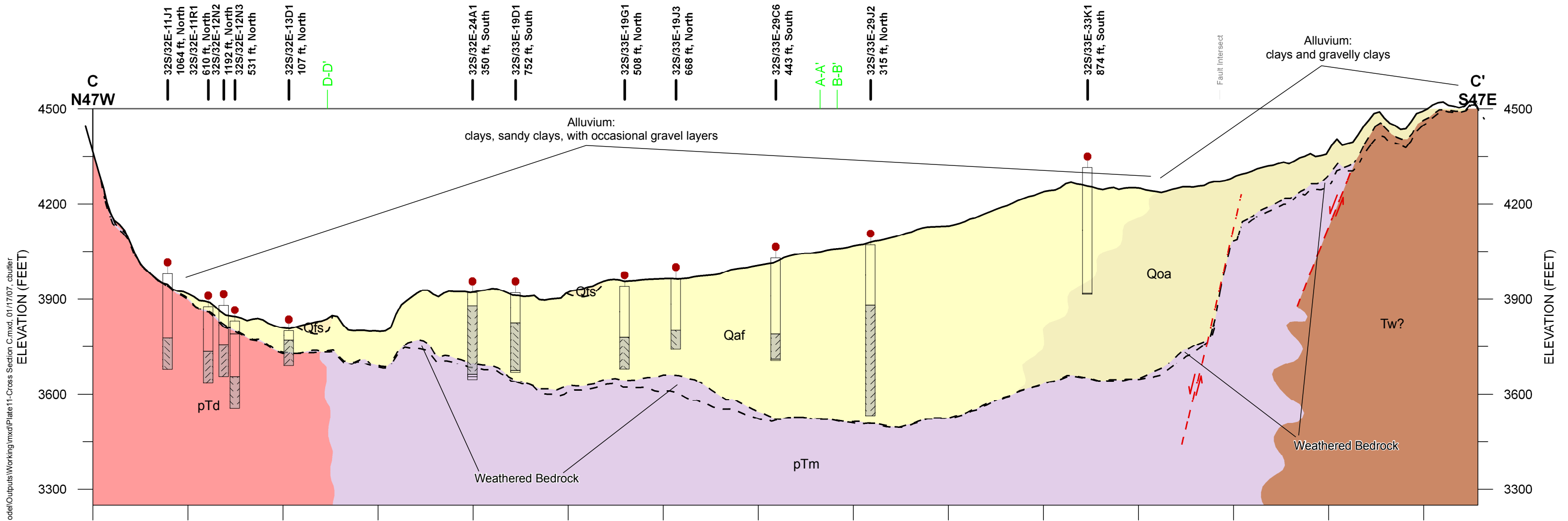
N:\Projects\3267\_TehachapiCummingsCWD\3267-003\_TehachBasinModel\Outputs\Working\mxd\Plate10-Cross Section B.mxd, 01/17/07, cbutler



LEGEND			
	<b>Quaternary Geology</b>	<b>Tertiary Geology</b>	<b>Pre-Tertiary Geology</b>
	<b>Qaf</b> Alluvial Fan Deposits	<b>Tw</b> Bedrock (Winet Formation)	<b>pTw</b> Bedrock (Winet Formation)
	<b>Qfs</b> Alluvial Stream Deposits and Flood Plain Silts		<b>pTd</b> Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite
	<b>Qoa</b> Older Alluvium		<b>pTm</b> Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives

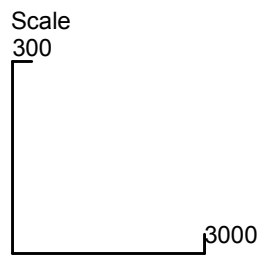
**SUBSURFACE CROSS SECTION B-B'**  
 Tehachapi Basin Analysis  
 Tehachapi, California





**LEGEND**

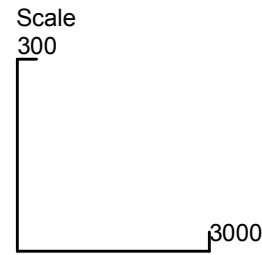
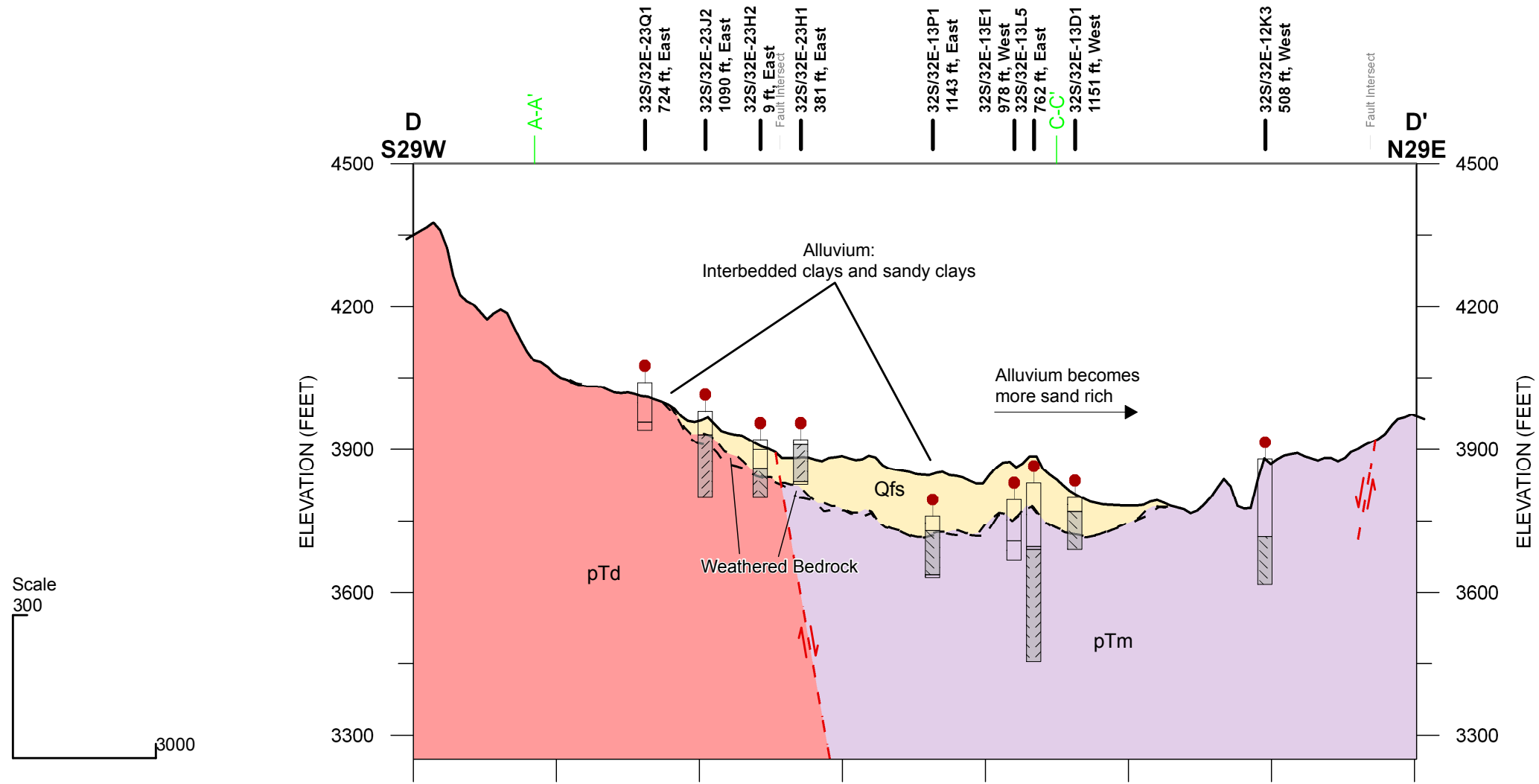
Well	<b>Quaternary Geology</b>	<b>Tertiary Geology</b>	<b>Pre-Tertiary Geology</b>
Blank Well Interval	Qaf Alluvial Fan Deposits	Tw Bedrock (Winet Formation)	pTw Bedrock (Winet Formation)
Screened Interval	Qfs Alluvial Stream Deposits and Flood Plain Silts		pTd Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite
Fault Showing Relative Movement	Qoa Older Alluvium		pTm Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives



**SUBSURFACE CROSS SECTION C-C'**  
Tehachapi Basin Analysis  
Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\CWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate11-Cross Section C.mxd, 01/17/07, cbutler

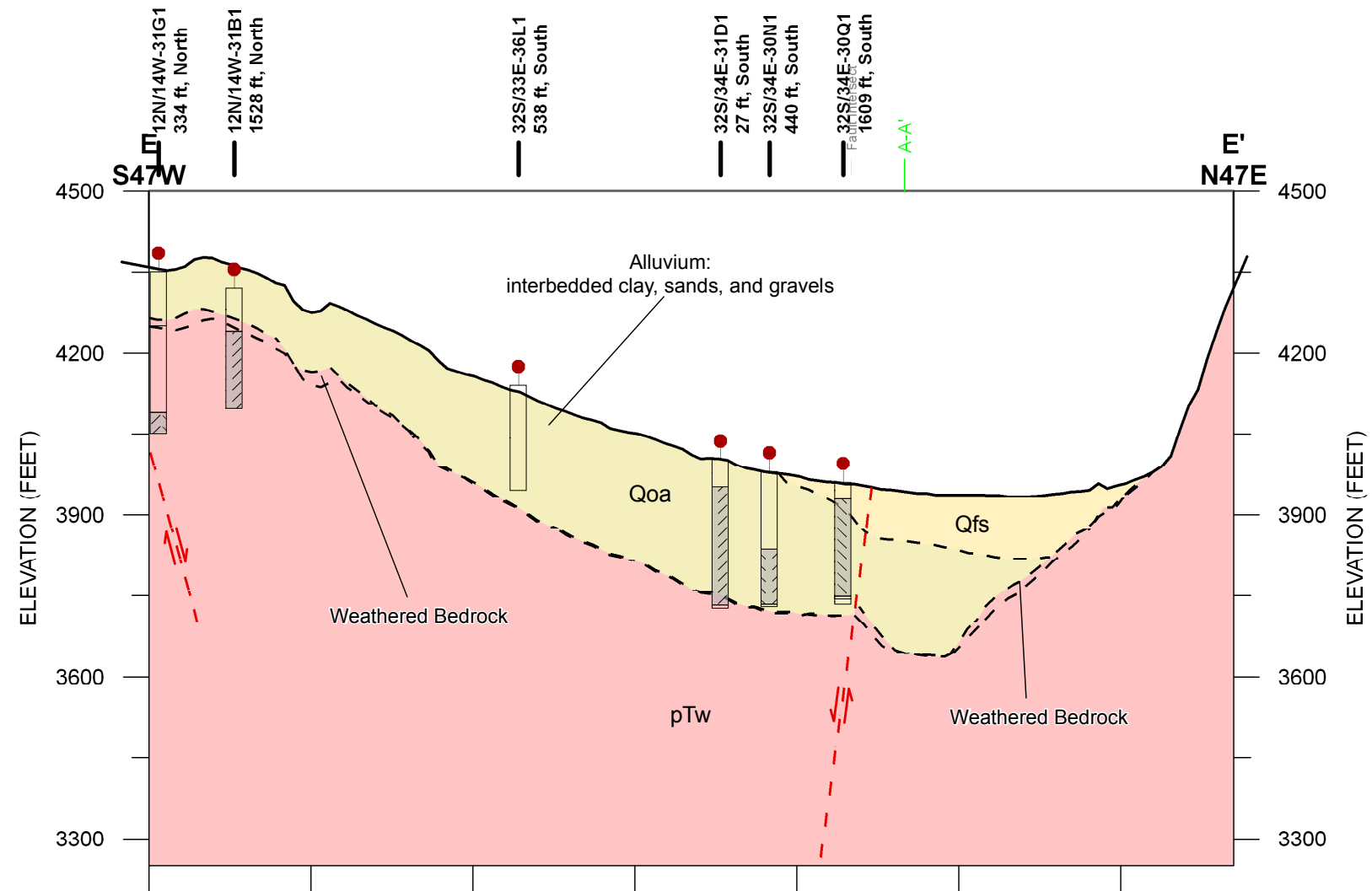




LEGEND			
	<b>Quaternary Geology</b>	<b>Tertiary Geology</b>	<b>Pre-Tertiary Geology</b>
	<b>Qaf</b> Alluvial Fan Deposits	<b>Tw</b> Bedrock (Winet Formation)	<b>pTw</b> Bedrock (Winet Formation)
	<b>Qfs</b> Alluvial Stream Deposits and Flood Plain Silts		<b>pTd</b> Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite
	<b>Qoa</b> Older Alluvium		<b>pTm</b> Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives

**SUBSURFACE CROSS SECTION D-D'**  
 Tehachapi Basin Analysis  
 Tehachapi, California

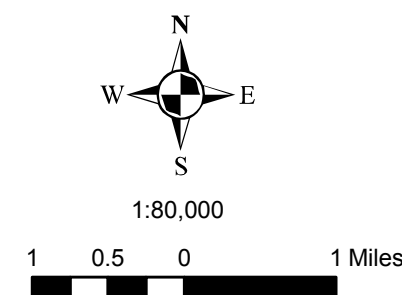
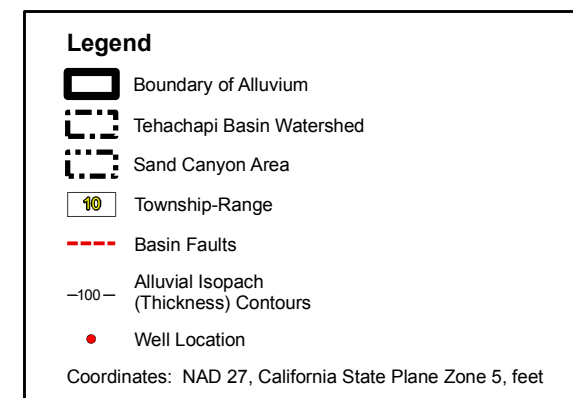
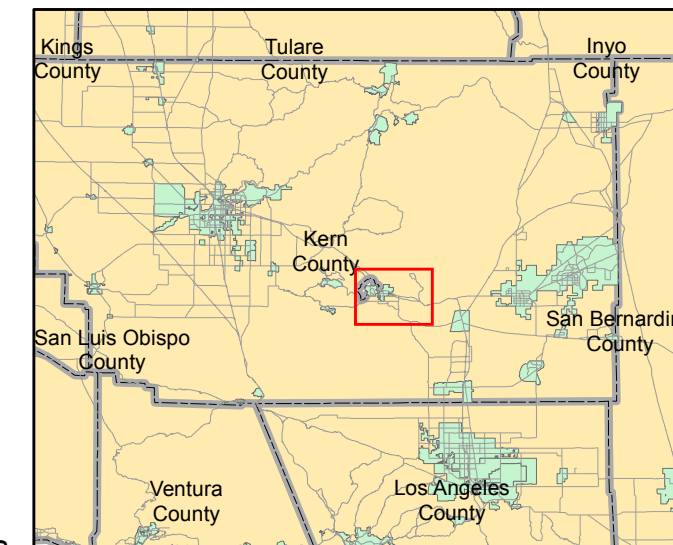
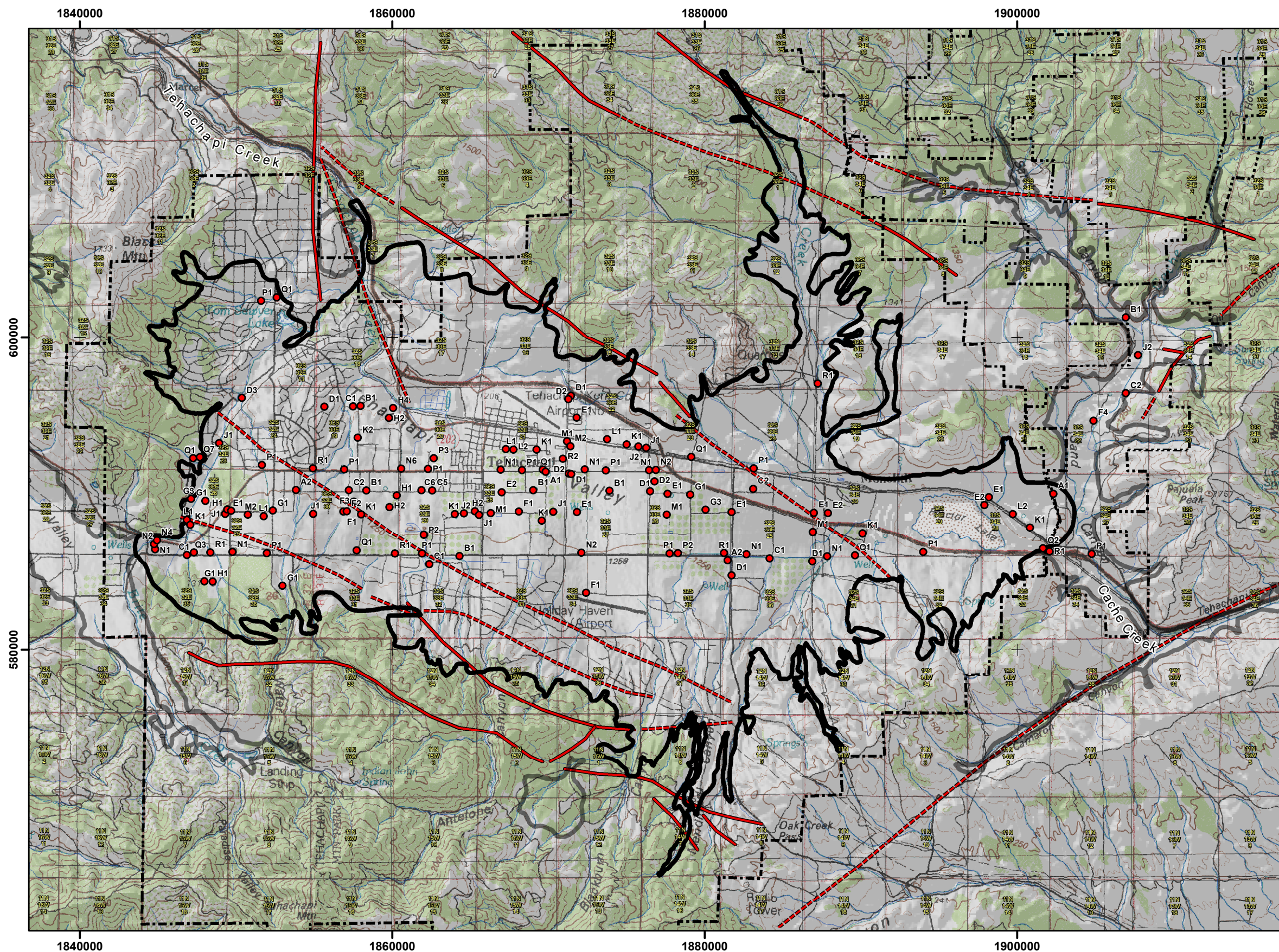




LEGEND			
Well	Quaternary Geology	Tertiary Geology	Pre-Tertiary Geology
 Well Blank Well Interval Screened Interval	<b>Qaf</b> Alluvial Fan Deposits  <b>Qfs</b> Alluvial Stream Deposits and Flood Plain Silts  <b>Qoa</b> Older Alluvium	<b>Tw</b> Bedrock (Winet Formation)	<b>pTw</b> Bedrock (Winet Formation)  <b>pTd</b> Diorite, Quartz Diorite, Granodiorite, Quartz Monzonite, Granite  <b>pTm</b> Gneiss, Schist, Limestone, Quartzite, Some Igneous Intrusives
 Fault Showing Relative Movement			

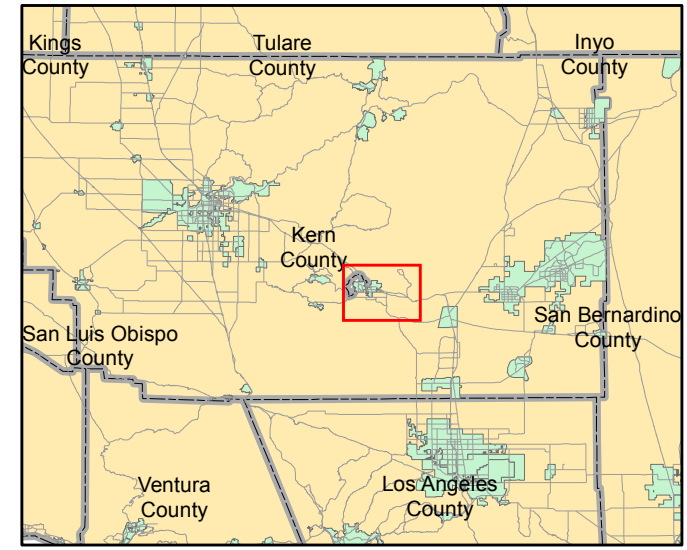
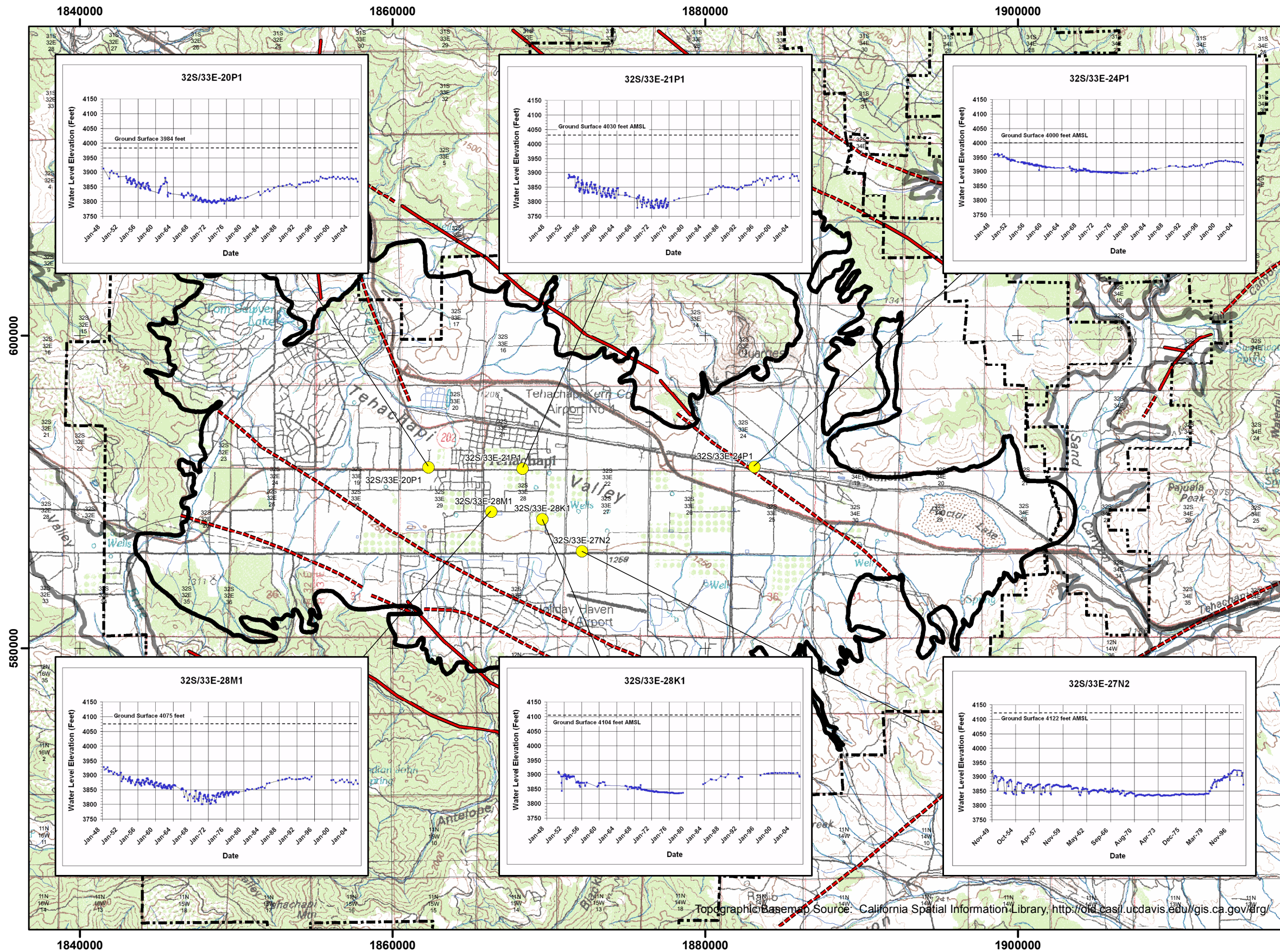
**SUBSURFACE CROSS SECTION E-E'**  
 Tehachapi Basin Analysis  
 Tehachapi, California





**WELL LOCATIONS WITH WATER LEVEL DATA**  
Tehachapi Basin Analysis  
Tehachapi, California

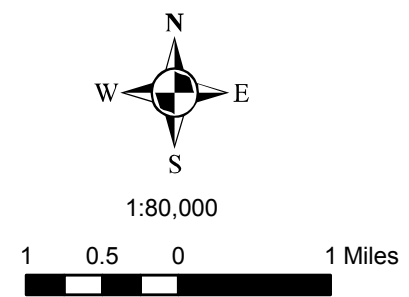




**Legend**

- Boundary of Alluvium
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Fault (approximate)
- Production Well

Coordinates: NAD 27, California State Plane Zone 5, feet

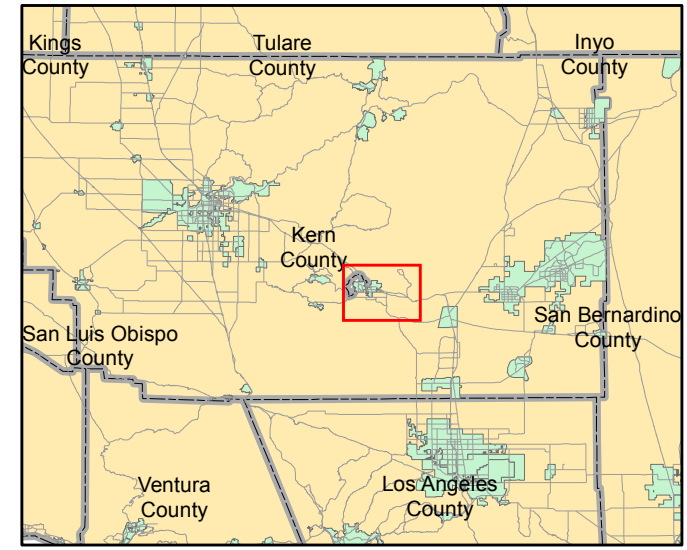
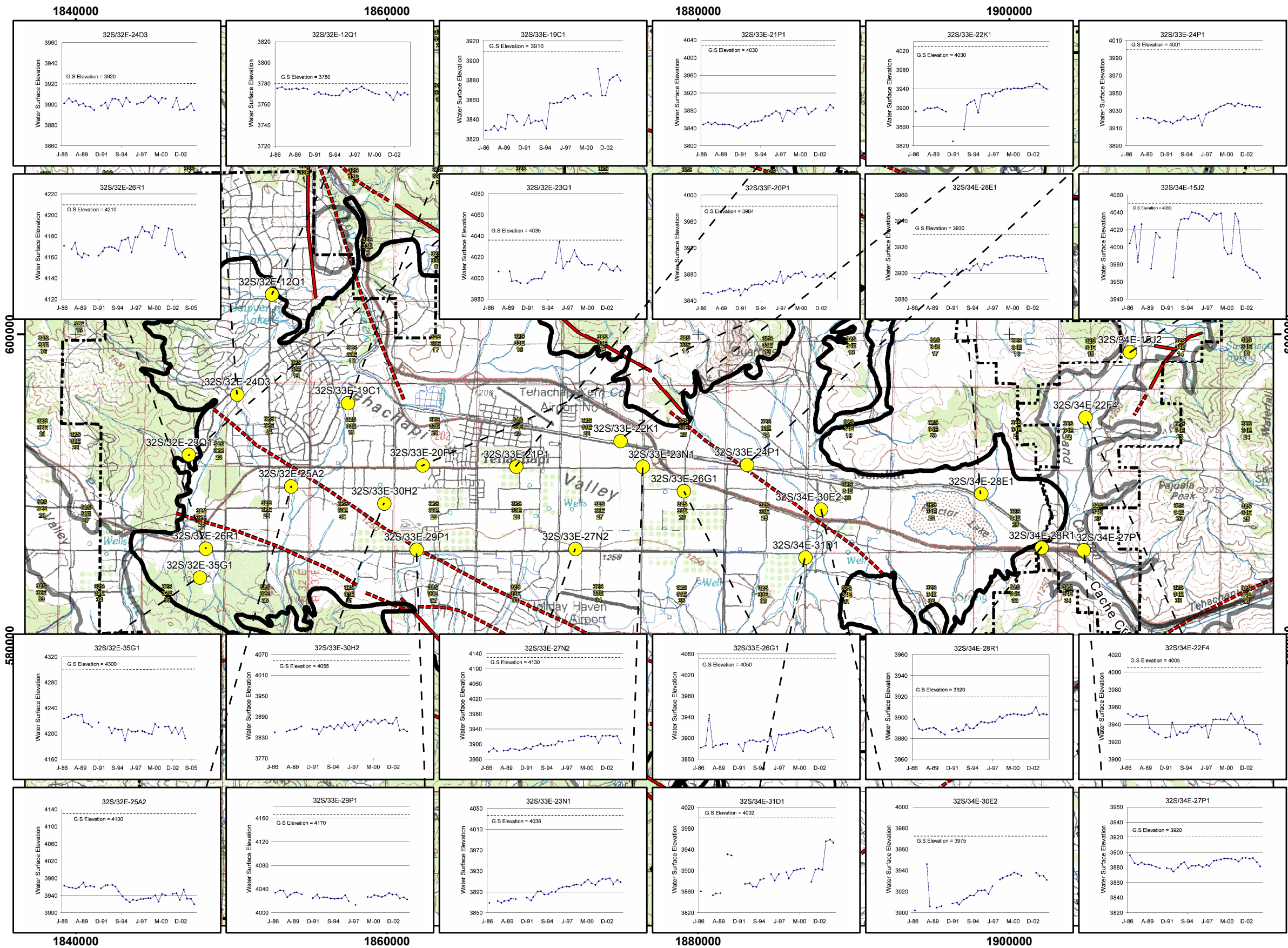


**KEY WELL HYDROGRAPHS**  
Tehachapi Basin Analysis  
Tehachapi, California

Topographic Base Map Source: California Spatial Information Library, <http://csl.ucdavis.edu/gis.ca.gov/>

N:\Projects\3267\_Tehachapi\Cummings\WWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate22-KeyHydrographs.mxd, 12/21/06, cbuller

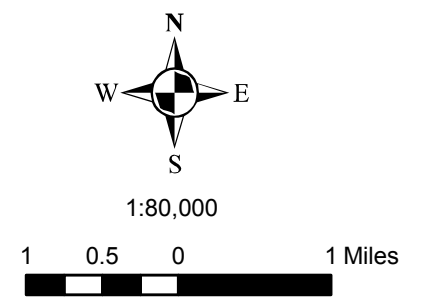




**Legend**

- Boundary of Alluvium
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Basin Faults
- Production Well

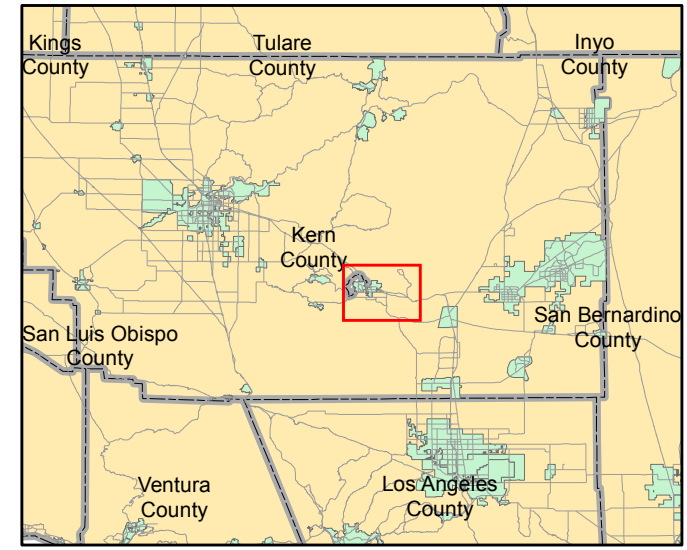
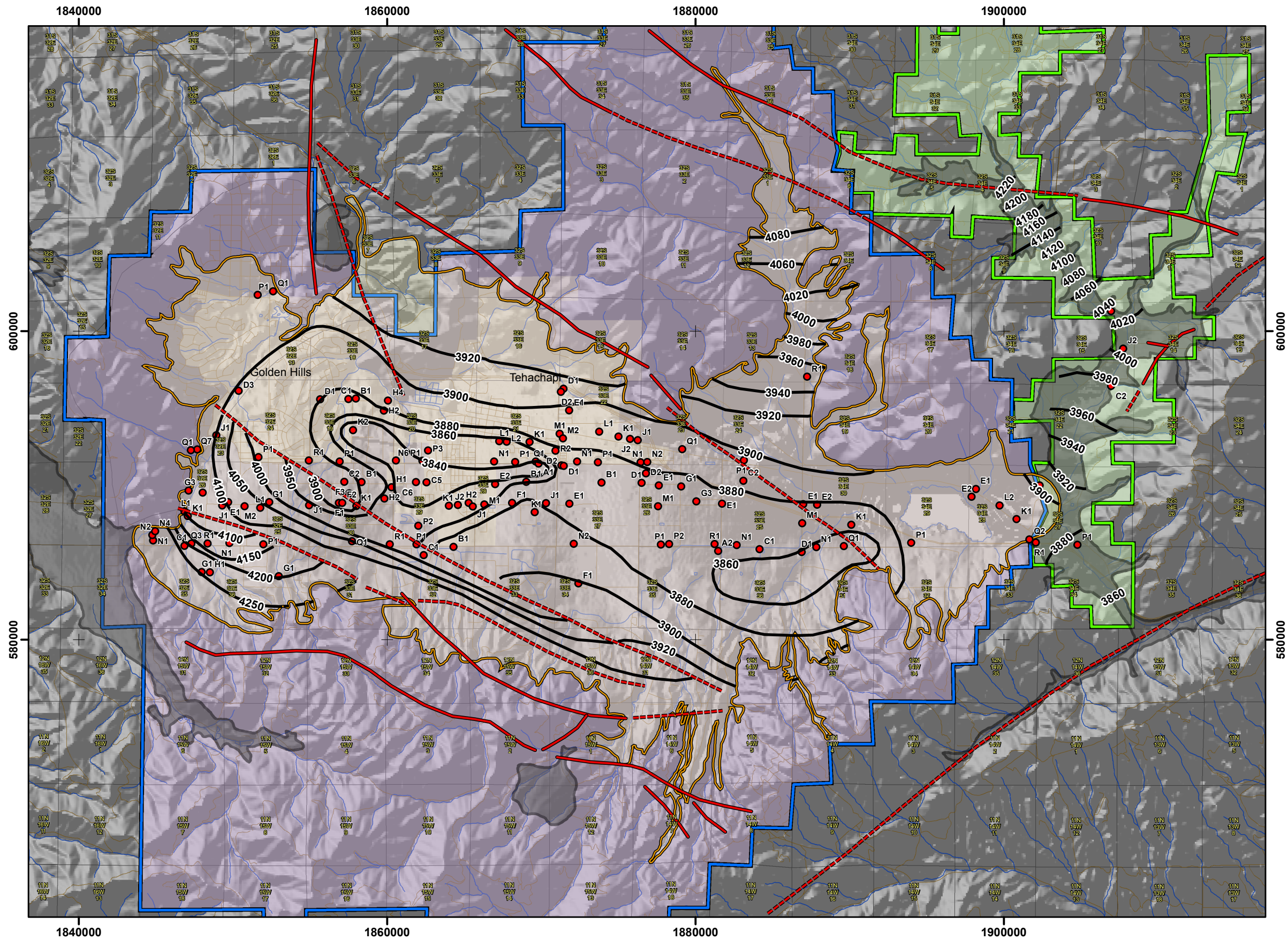
Coordinates: NAD 27, California State Plane Zone 5, feet



**WELL HYDROGRAPHS 1986 TO 2006**  
Tehachapi Basin Analysis  
Tehachapi, California

N:\Projects\3267\_Tehachapi\CummingsCWD\3267-003\_TehachapiBasinModelOutputs\Working\mxd\Plate23-SelectHydro1986-2006.mxd\_12/21/06\_cbutter

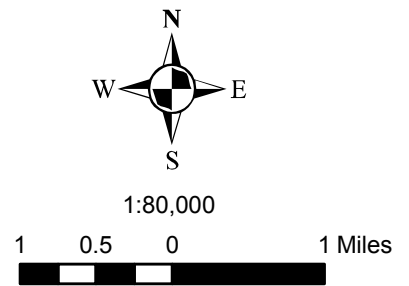




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- 3800 - Groundwater Elevation Contours (feet)
- Well Location

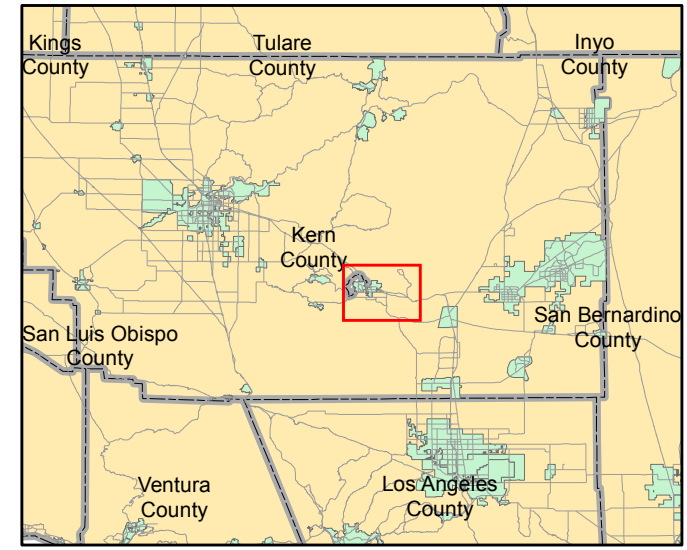
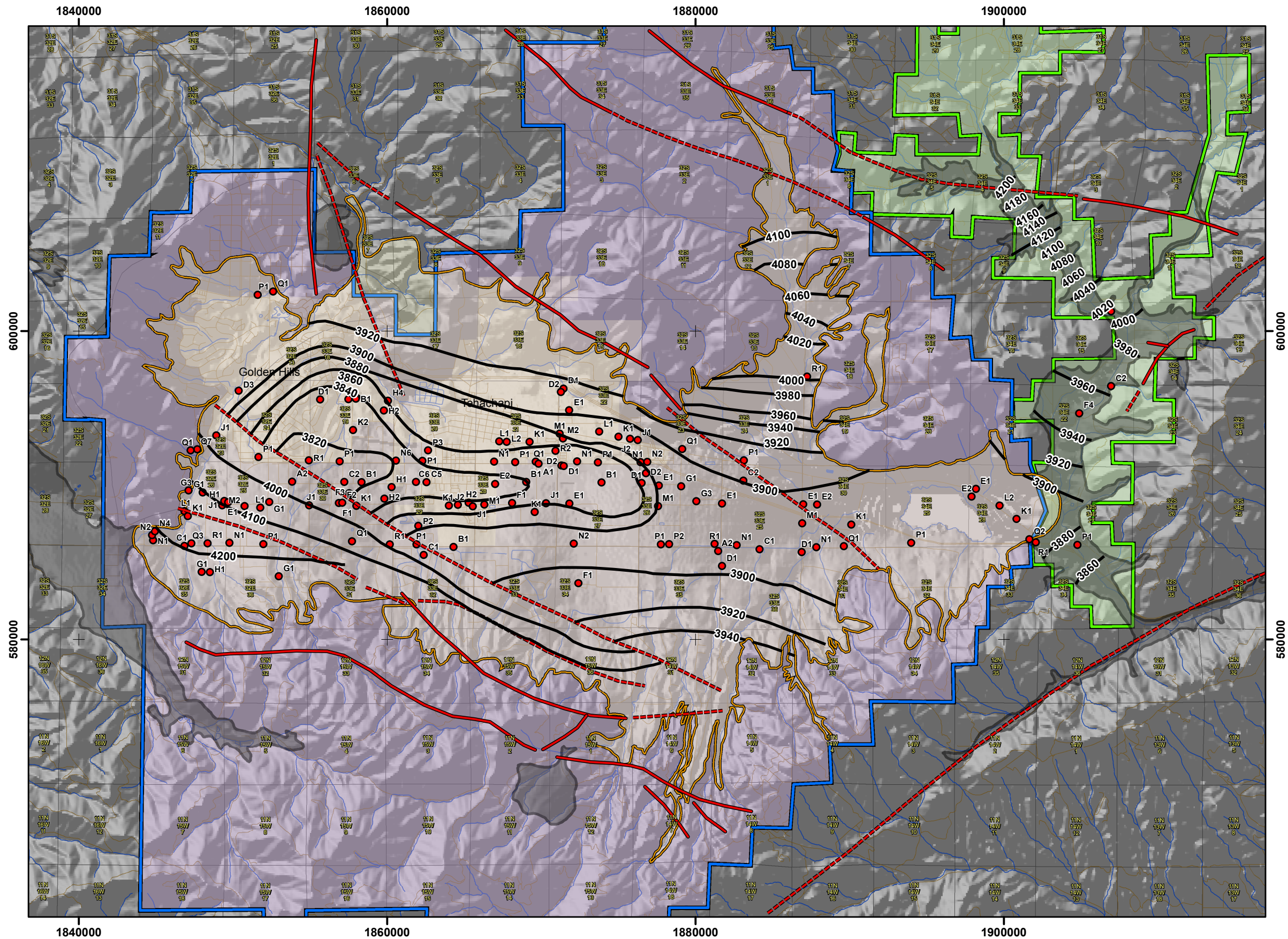
Grid tics: NAD 27, California State Plane, Zone 5, feet



**GROUNDWATER ELEVATION**  
**OCTOBER 1986**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\CWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate15-1986\_H2Contour.mxd, 11/14/06, cbutler

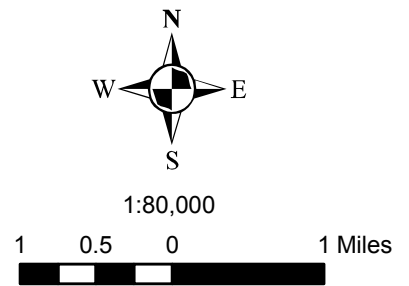




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- Groundwater Elevation Contours (feet)
- Well Location

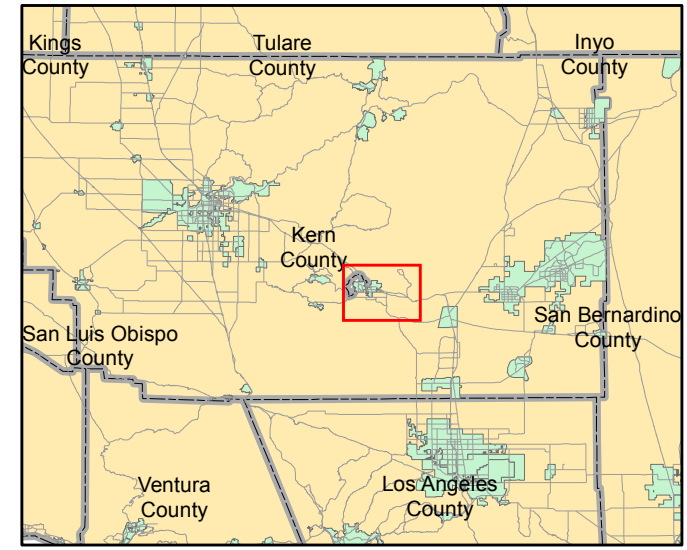
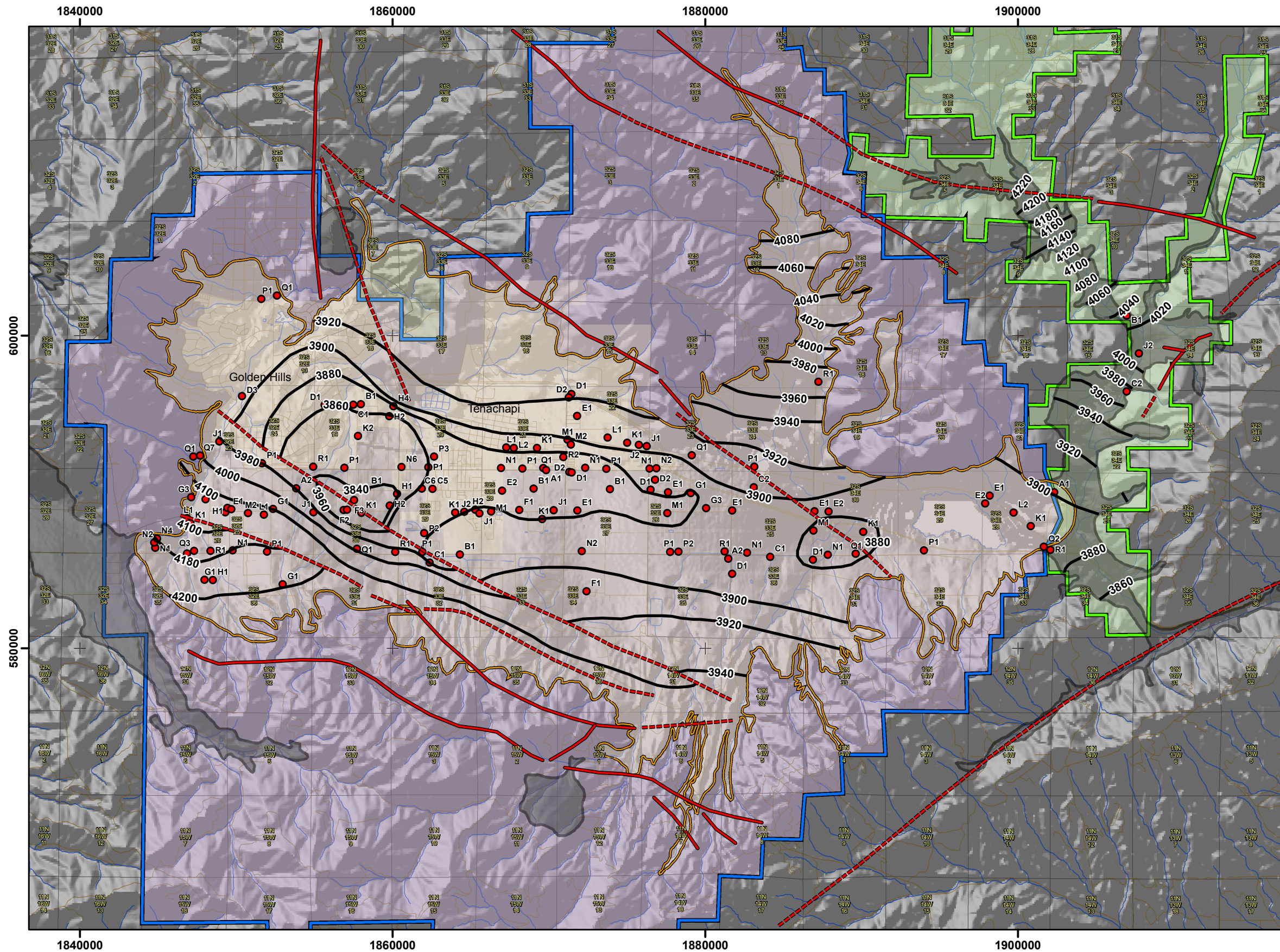
Grid tics: NAD 27, California State Plane, Zone 5, feet



**GROUNDWATER ELEVATION  
 JUNE 1987**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\Working\mxd\Plate16-1987Spring\_H2Ocont.mxd, 11/15/06, cbutler

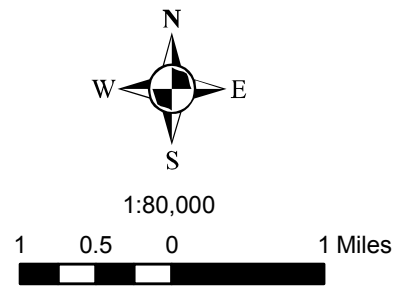




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- 3800 - Groundwater Elevation Contours (feet)
- Well Location

Grid tics: NAD 27, California State Plane, Zone 5, feet



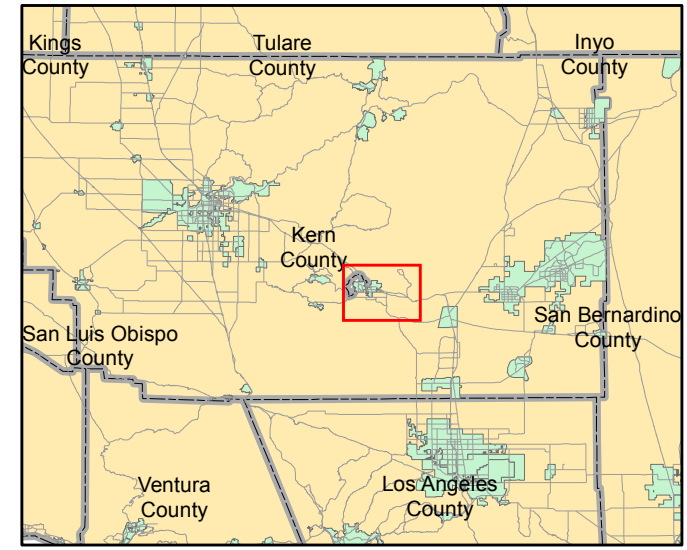
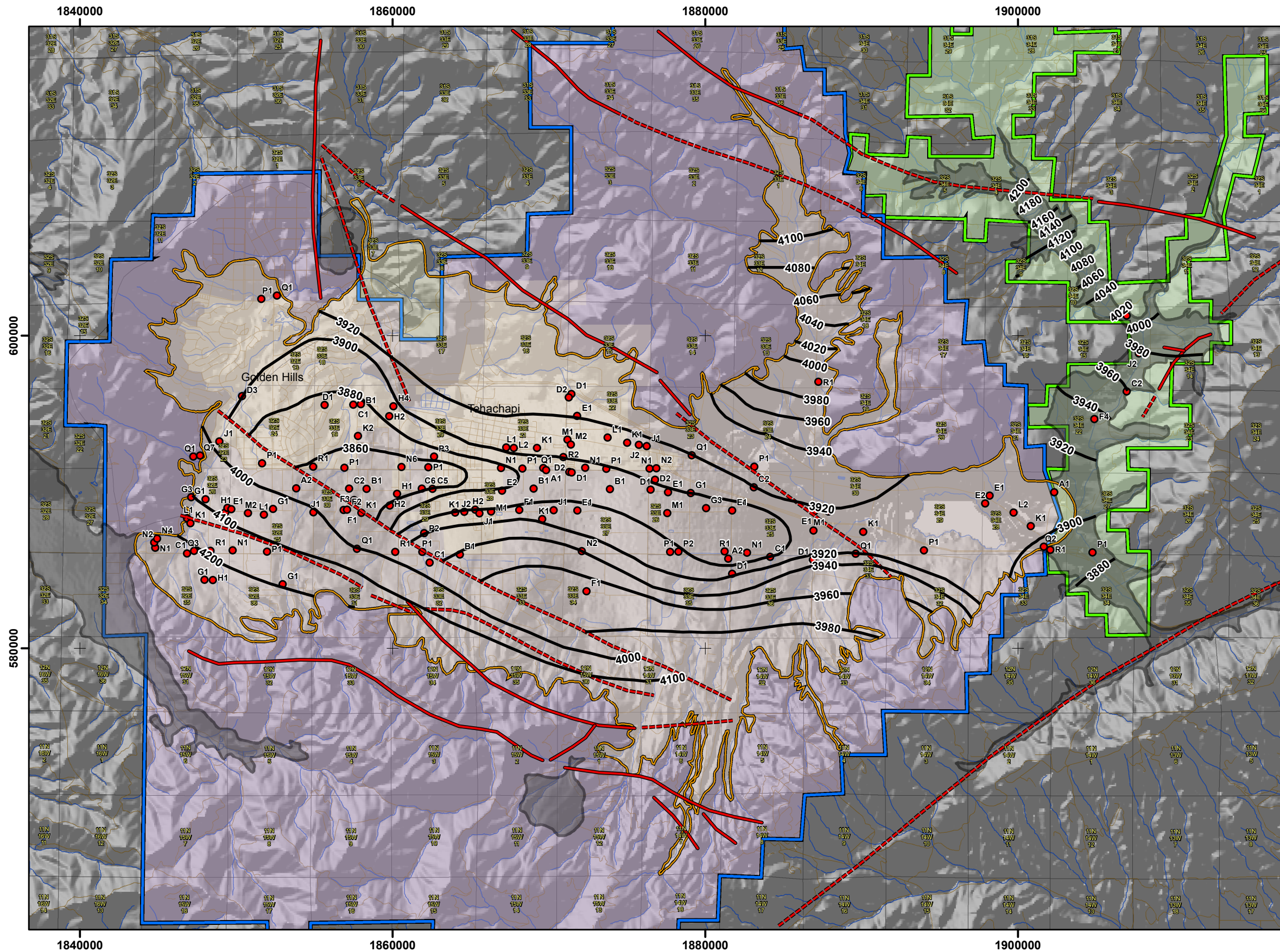
**GROUNDWATER ELEVATION  
 NOVEMBER 1996**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\CWD\3267-003\_TehachapiBasinModelOutputs\Working\mxd\Plate17-1996\_H2Contour.mxd, 10/30/06, cbutter





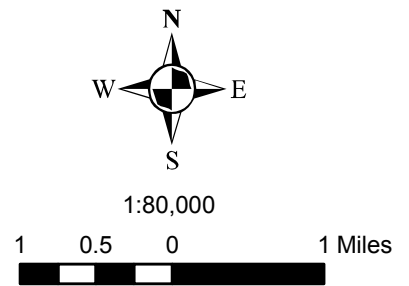




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Faults (approximate)
- 3800 - Groundwater Elevation Contours (feet)
- Well Location

Grid tics: NAD 27, California State Plane, Zone 5, feet



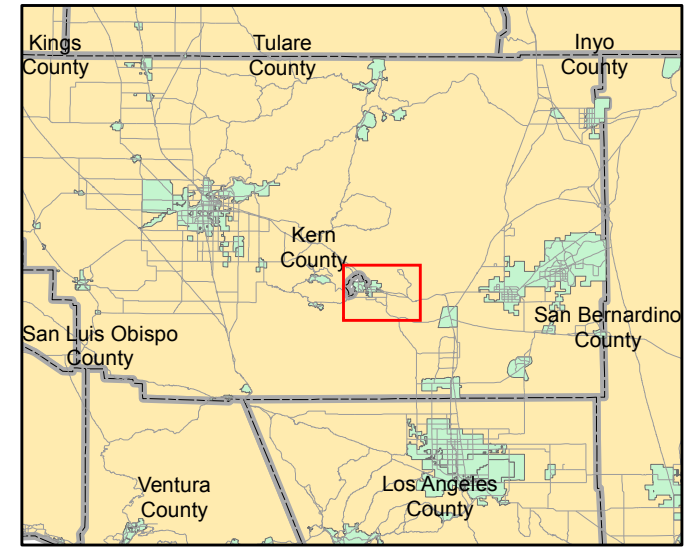
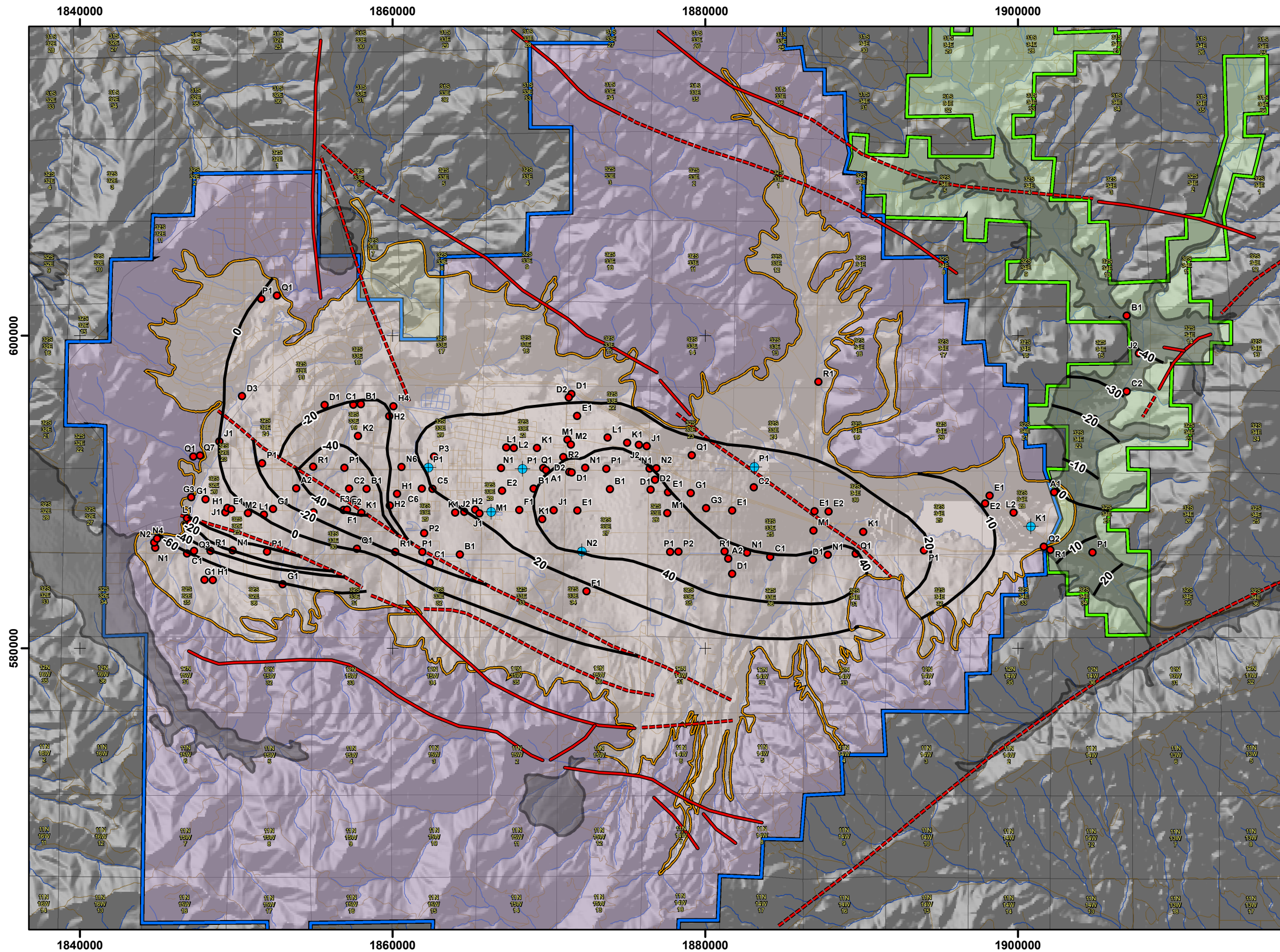
**GROUNDWATER ELEVATION  
 MAY 2004**  
 Tehachapi Basin Analysis  
 Tehachapi, California

N:\Projects\3267\_Tehachapi\Cummings\CWD\3267-003\_TehachapiBasinModel\Outputs\Working\mxd\Plate19-2004Spring\_H2Ocont.mxd, 11/17/06, cbuller





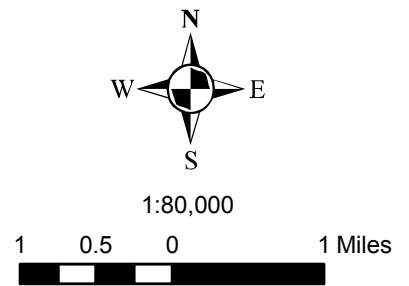




**Legend**

- Alluvial Boundary
- Tehachapi Basin Watershed
- Sand Canyon Area
- 10 Township-Range
- Faults (approximate)
- 3800- Groundwater Depth Change Contours (feet)
- + Key Well Location
- Well Location

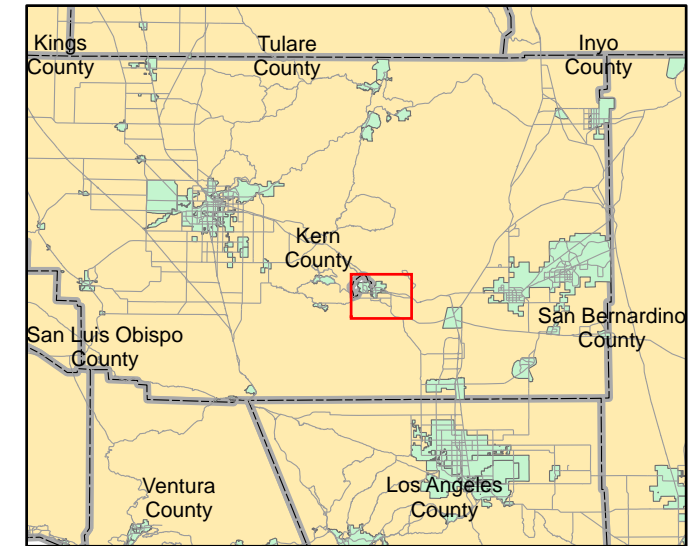
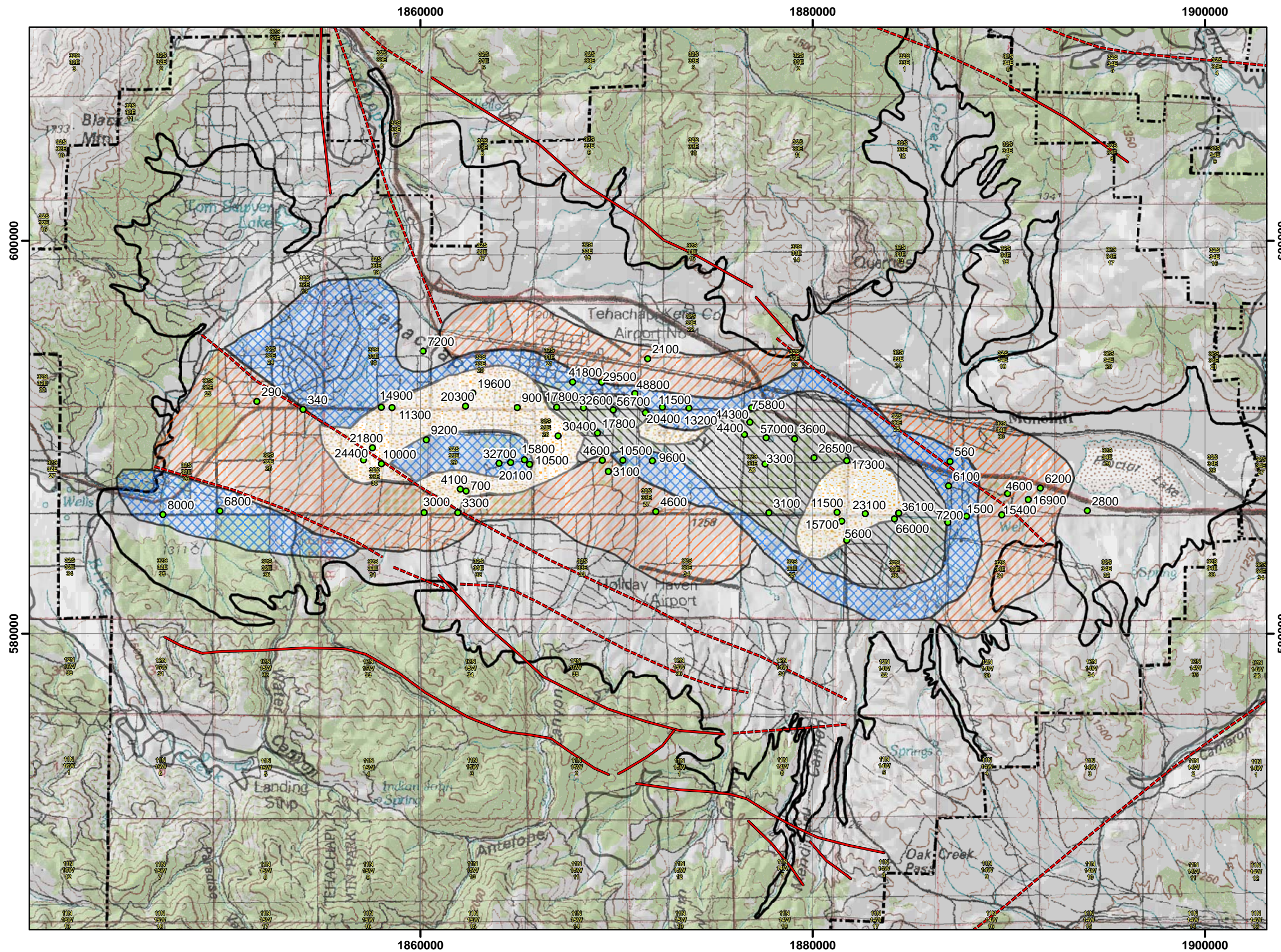
Grid tics: NAD 27, California State Plane, Zone 5, feet



**GROUNDWATER ELEVATION CHANGE  
 BETWEEN 1986 AND 2004**  
 Tehachapi Basin Analysis  
 Tehachapi, California

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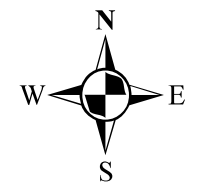




**Legend**

Boundary of Alluvium	Transmissivity Values < 5,000
Tehachapi Basin Watershed	5,000 - 15,000
Sand Canyon Area	15,000-25,000
Township-Range	> 25,000
Faults	
Well Location	

Coordinates: NAD 27, California State Plane Zone 5, feet

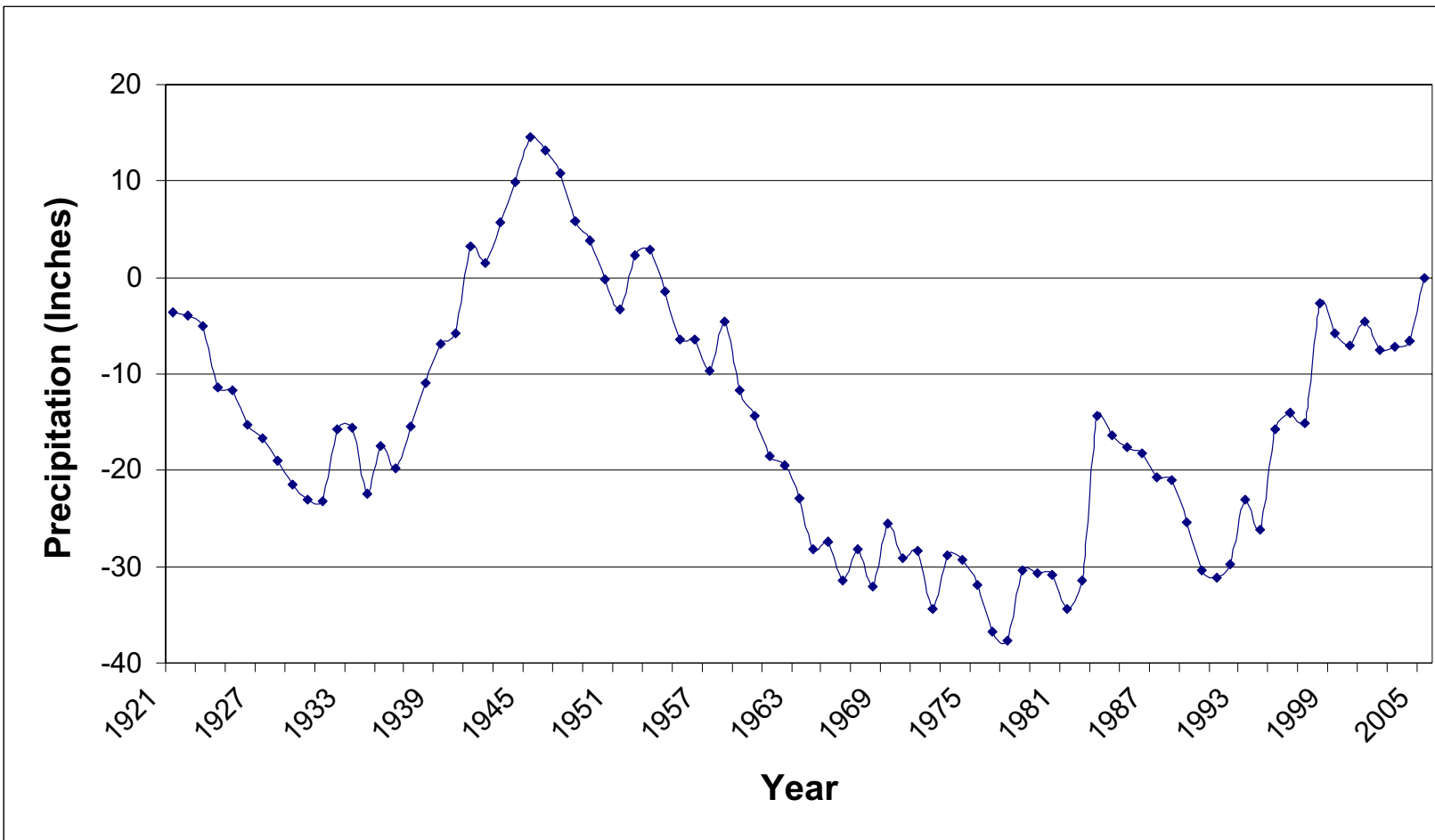


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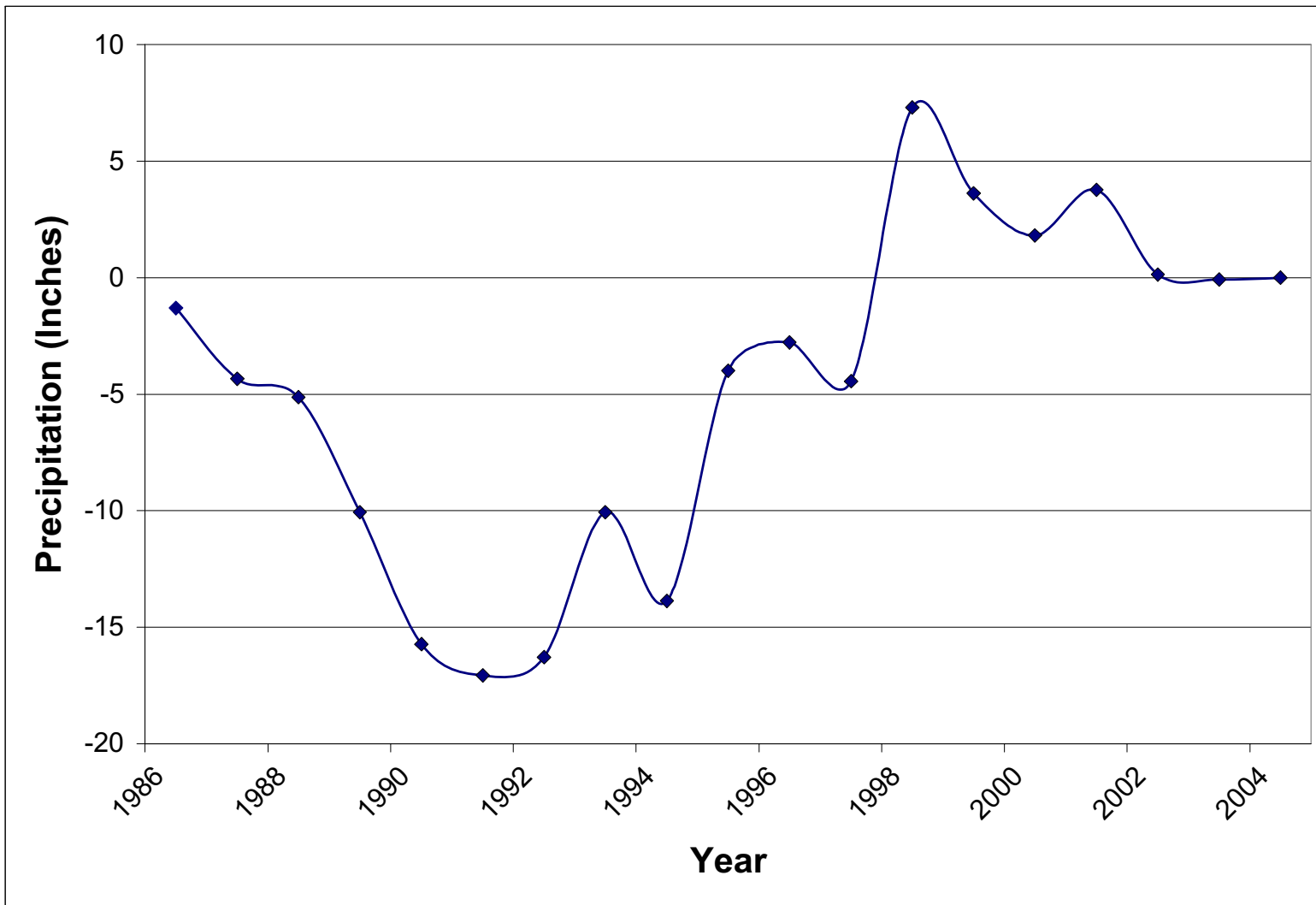
**AQUIFER TRANSMISSIVITY VALUES**  
 Tehachapi Basin Analysis  
 Tehachapi, California





**CUMULATIVE DEPARTURE FROM MEAN PRECIPITATION  
FOR TEHACHAPI 1921-2005**  
Templeton Community Services District  
Templeton, California

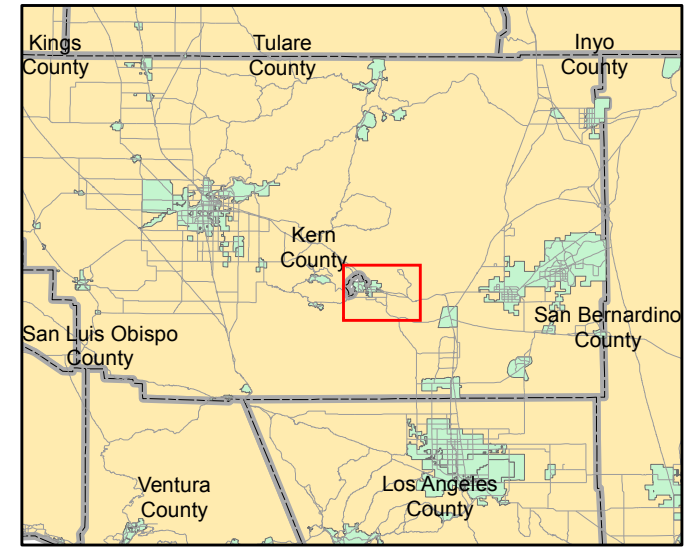
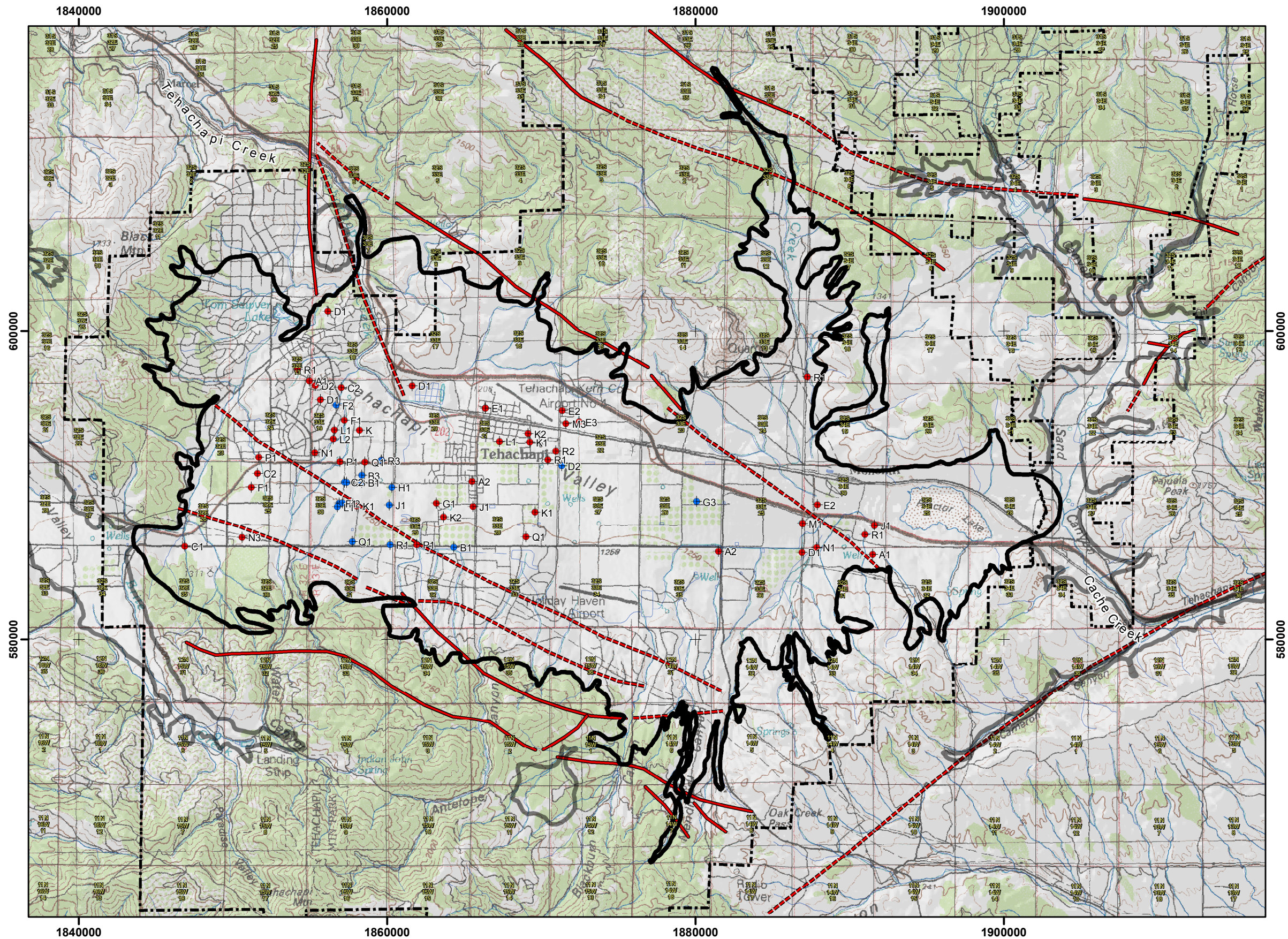




**CUMULATIVE DEPARTURE FROM MEAN PRECIPITATION  
FOR TEHACHAPI 1986-2004 (MODEL BASE PERIOD)**  
Templeton Community Services District  
Templeton, California



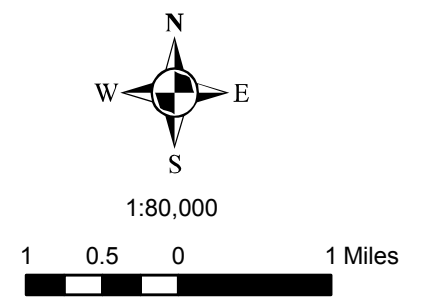




**Legend**

- Boundary of Alluvium
- Tehachapi Basin Watershed
- Sand Canyon Area
- Township-Range
- Basin Faults
- AG Approximate Well Location
- M & I Approximate Well Location

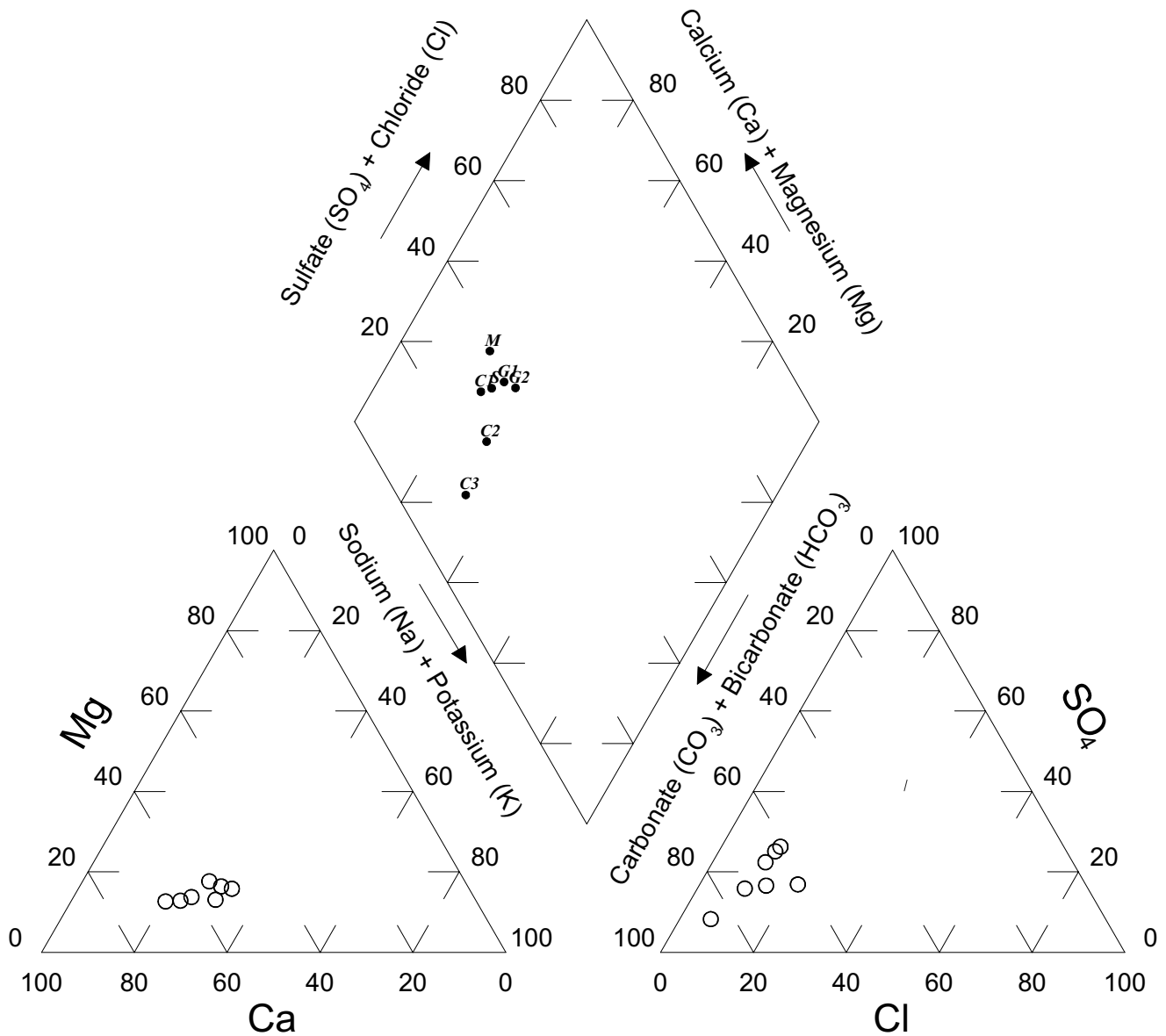
Coordinates: NAD 27, California State Plane Zone 5, feet



**GROUNDWATER PRODUCTION  
 WELL LOCATIONS**  
 Tehachapi Basin Analysis  
 Tehachapi, California

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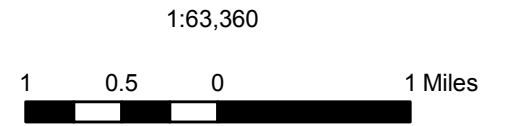
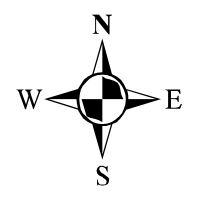
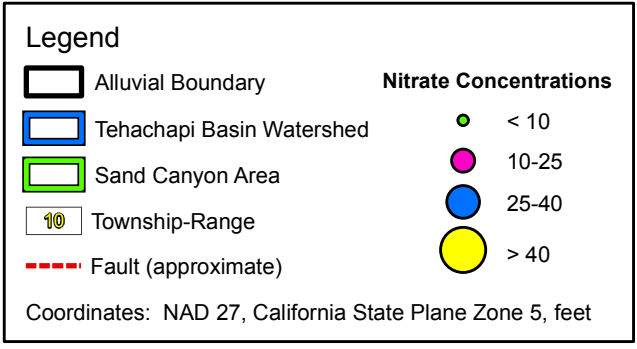
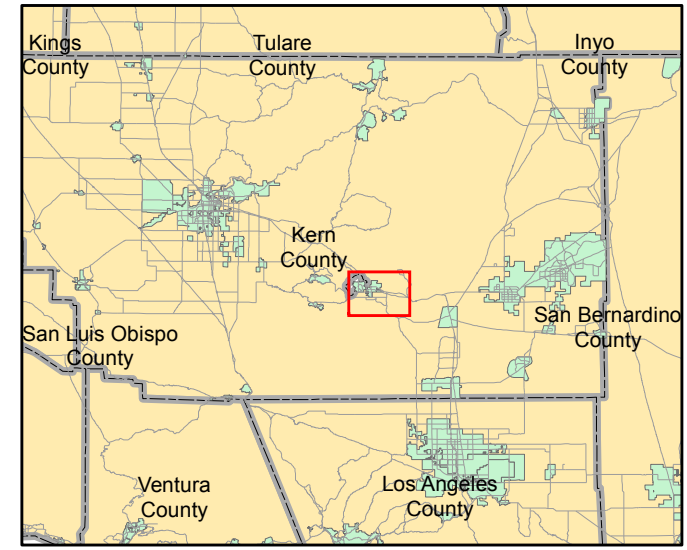
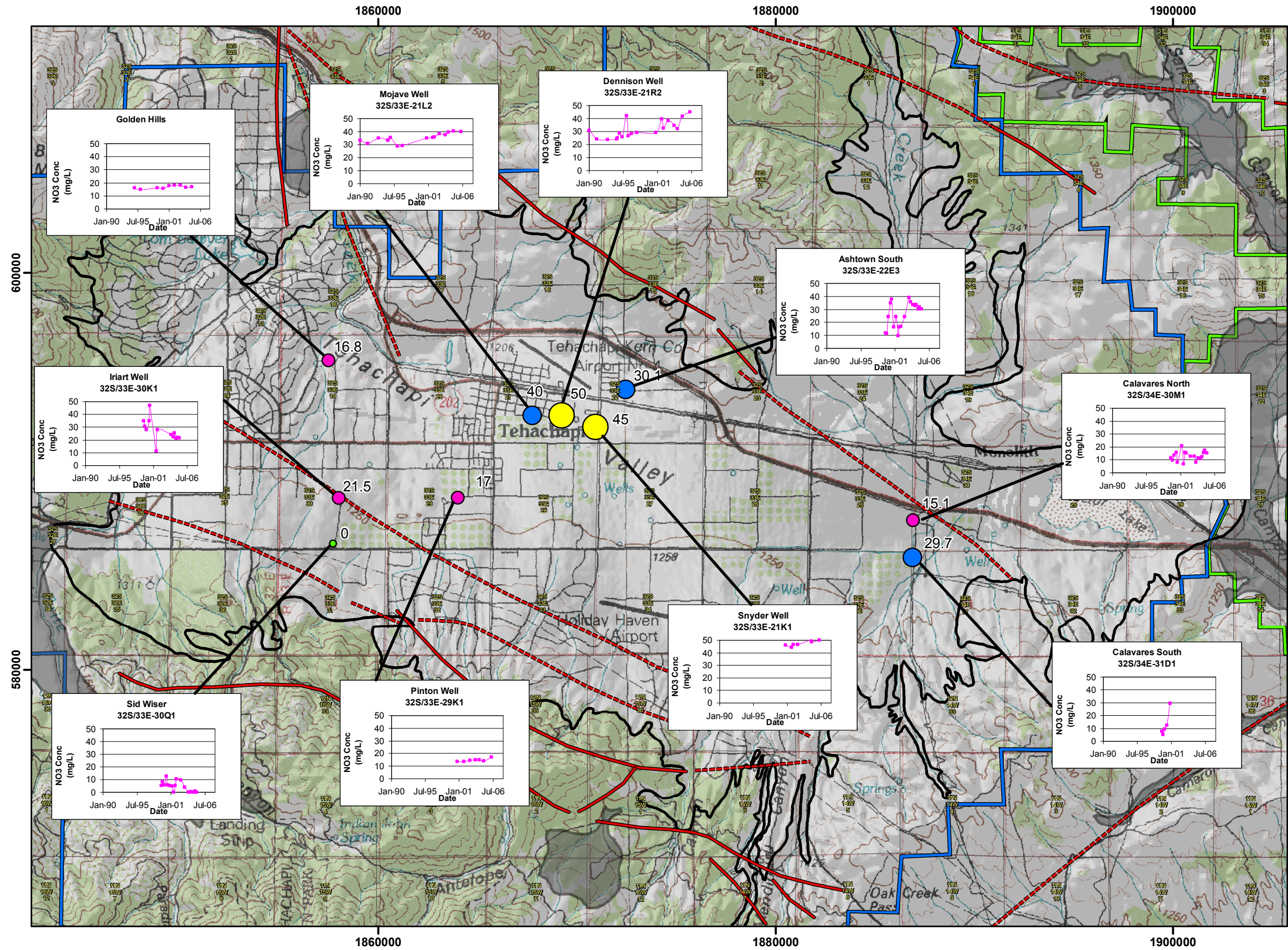


**LEGEND**

- M - Mojave Well #1
- C - City Water (Blended)
- G - Golden Hills Water (Blended)
- S - Snyder Well

**WATER CHEMISTRY OF THE TEHACHAPI BASIN**  
 TEHACHAPI BASIN ANALYSIS  
 TEHACHAPI, CALIFORNIA





**NITRATE CONCENTRATIONS 2004 TO 2006  
AND GRAPHICAL TRENDS**  
Tehachapi Basin Analysis  
Tehachapi, California

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