APPENDIX 2.D. HYDROGEOLOGIC CONCEPTUAL MODEL

Prepared as part of the

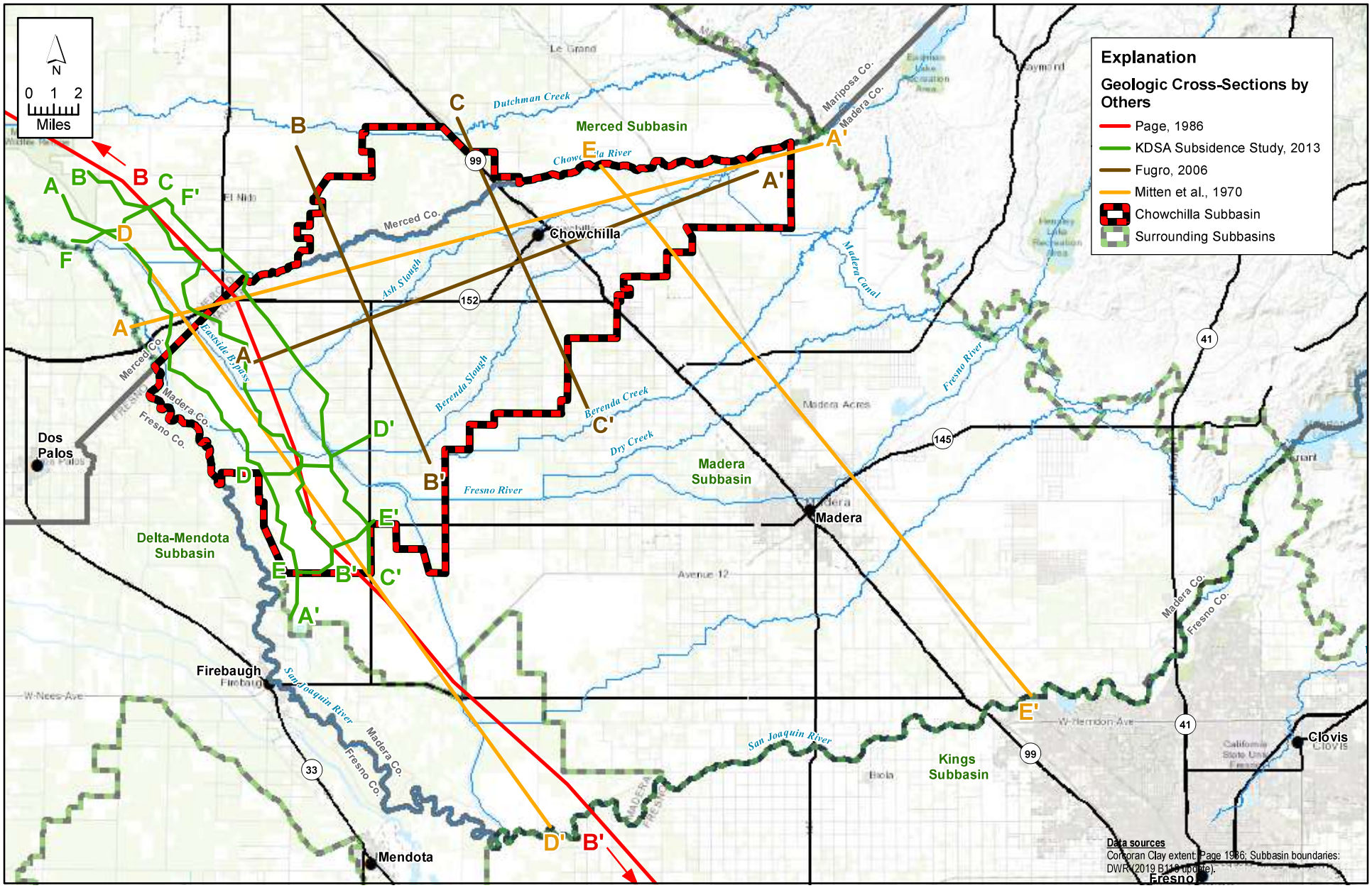
Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

Existing Geologic Cross-Sections



X:\2018\18-017 Chowchilla GSP Development\GIS\Map files\Report Figures\Appendix 2.F Chowchilla Subbasin CrossSection Location Map.mxd

DAVIDS ENGINEERING, INC

Luhdorff & Scalmanini Consulting Engineers

APPENDIX 2.D

Existing Geologic Cross-Section Location Map

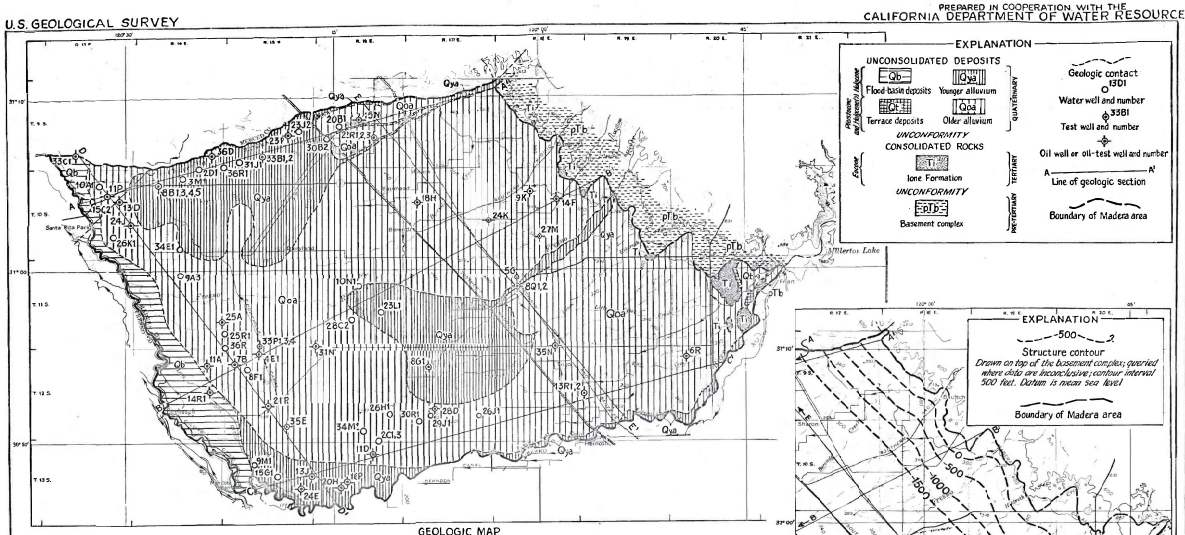
Mitten et al., 1970

U.S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
CALIFORNIA DEPARTMENT OF WATER RESOURCES

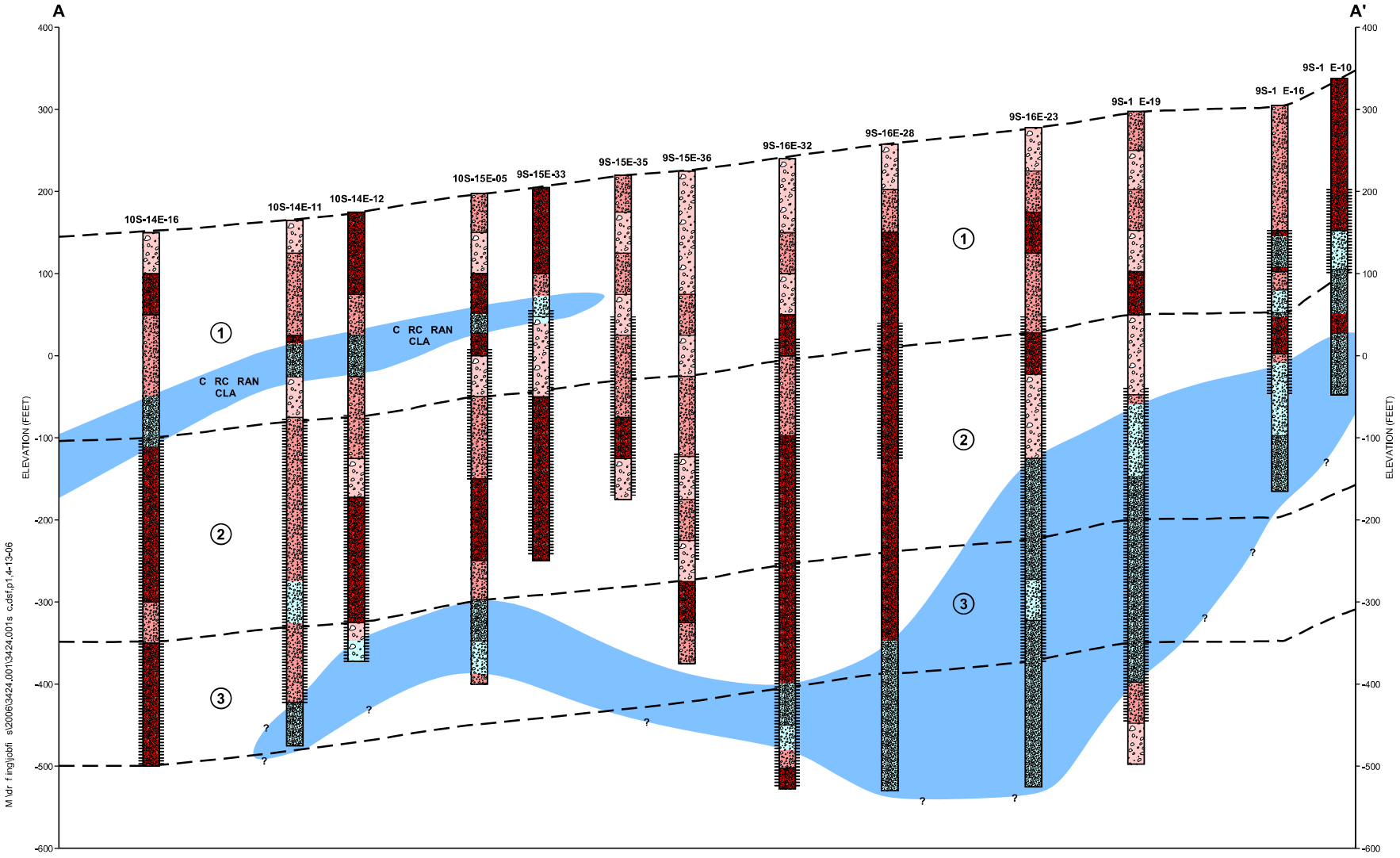
70-229

PLATE 1


Millerton Lake
Madera
Chowchilla
Fresno
Merced
Santa Rita Park
Qya
Qoa
pTb
Qb
Qt
Qc
Qm
Qd
Qs
Qg
Qal
Qfl
Qbl
Qsl
Qrl
Qpl
Qcl
Qml
Qdl
Qgl

Fugro, 2006

Chowchi W r Dis ric
June 2006 (Project No. 3424.001.07)



LE EN

- Co rs -gr in d s dim n s
- M dium-gr in d s dim n s
- Fin -gr in d s dim n s
- B u s dim n s
- B u s dim n y rs
- (3) Mod y r numb r
- Mod y r bound ry
- W scr n in rv

Note:
Co rs -gr in d, m dium-gr in d, nd fin -gr in d d sign ions of h bor ho i ho ogi s in h cross s c ion r pr s n v r g s dim n x ur s of h bor ho for 50-foo d p h in rv s.

120'
0
0 120'
Horizon nd V r ic
Sc s in F

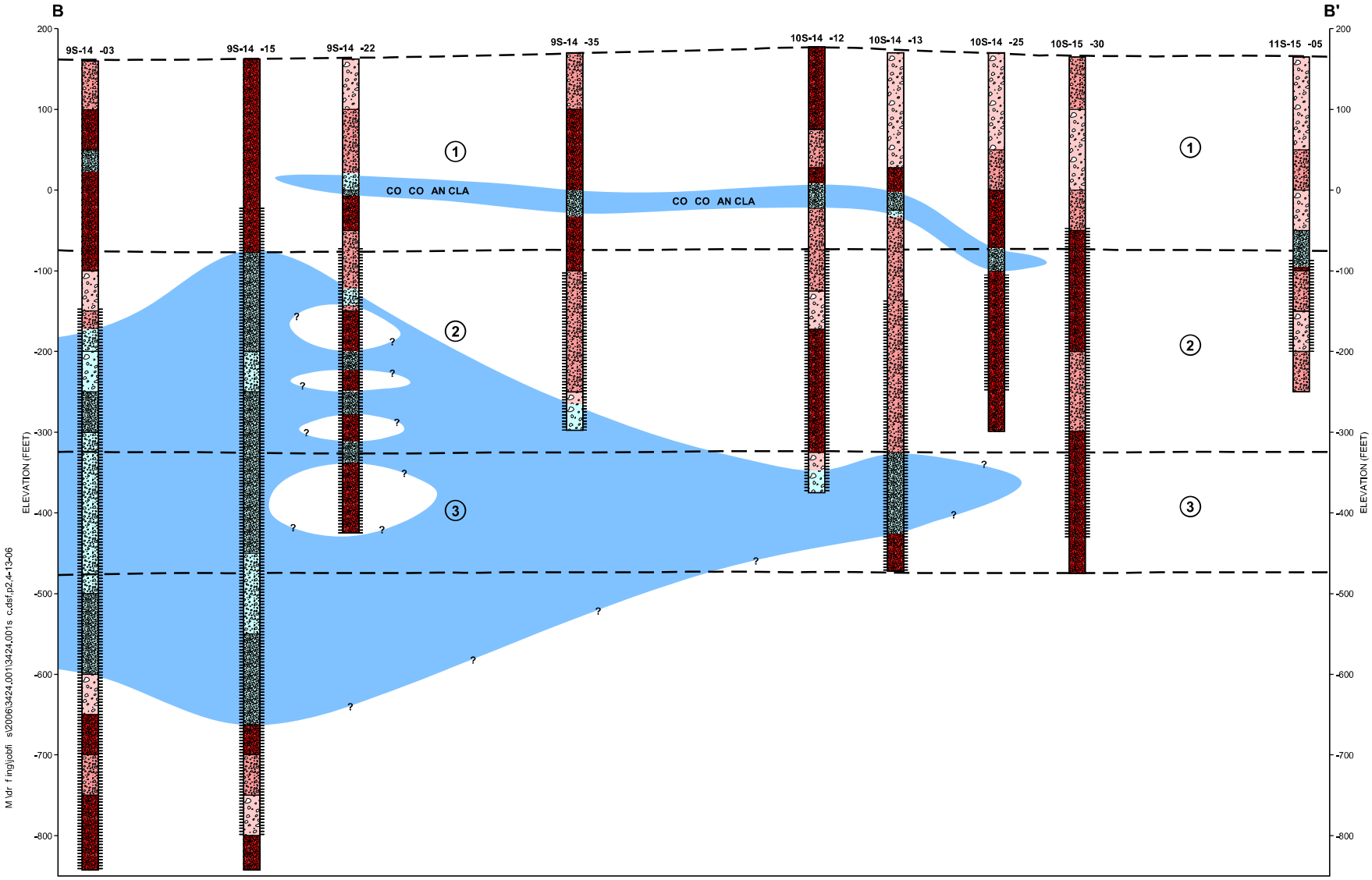
R E L IC
CR SS-SECTI N A-A'
Groundw r
M n g m n S udy

M:\dr f ing\jobfi s\2006\3424.001\3424.001s c.dsf,p1,4-13-06

PLATE 7
A2.D-4

Fugro, 2006

Chowchi W r Dis ric
June 2006 (Project No. 3424.001.07)



L N

- Co rs -gr in d s dim n s
- M dium-gr in d s dim n s
- Fin -gr in d s dim n s
- B u s dim n s
- B u s dim n y rs
- (3) Mod y r numb r
- Mod y r bound ry
- W scr n in rv

Note:
Co rs -gr in d, m dium-gr in d, nd fin -gr in d d sign ions of h bor ho i ho ogi s in h cross s c ion r pr s n v r g s dim n x ur s of h bor ho for 50-foo d p h in rv s.

120'
0
0 120'
Horizon nd V r ic
Sc s in F

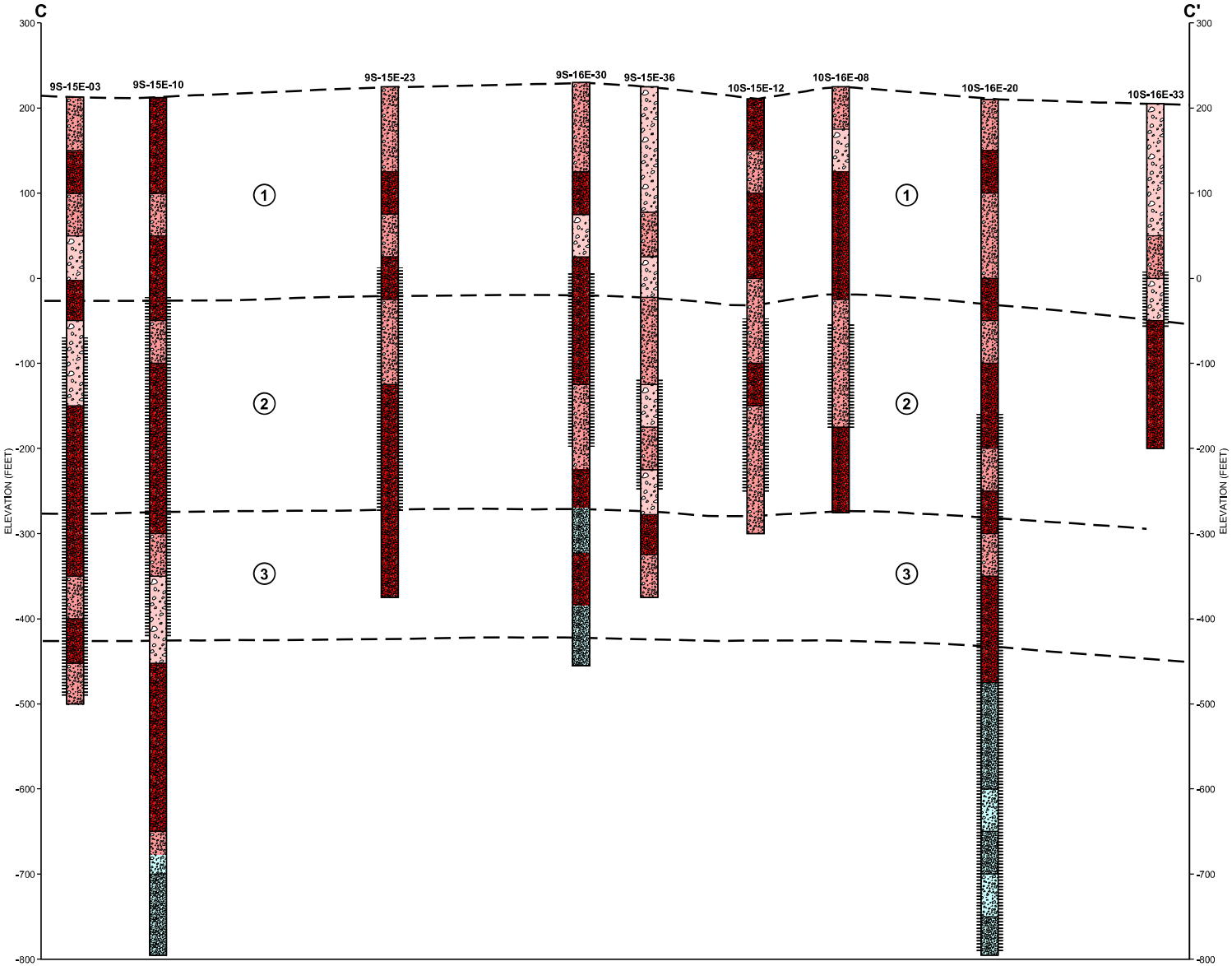
H O OLO IC C OSS-S CTION B-B'
Groundw r M n g m n S udy

PLATE 8

M \dr f ing\jobfi s\2006\3424.001\3424.001s c.dsf,p2,4-13-06

Fugro, 2006

Chowchilla Water District
June 2006 (Project No. 3424.001.07)



LEGEND

- Coarse-grained sediments
- Medium-grained sediments
- Fine-grained sediments
- Blue sediments
- Blue sediment layers
- Model layer number
- Model layer boundary
- Well screen interval

Note:
Coarse-grained, medium-grained, and fine-grained designations of the borehole lithologies in the cross section represent average sediment textures of the borehole for 50-foot depth intervals.

120'
0
0
120'
Horizontal and Vertical Scales in Feet

HYDROGEOLOGIC CROSS-SECTION C-C'
Groundwater Management Study

PLATE 9

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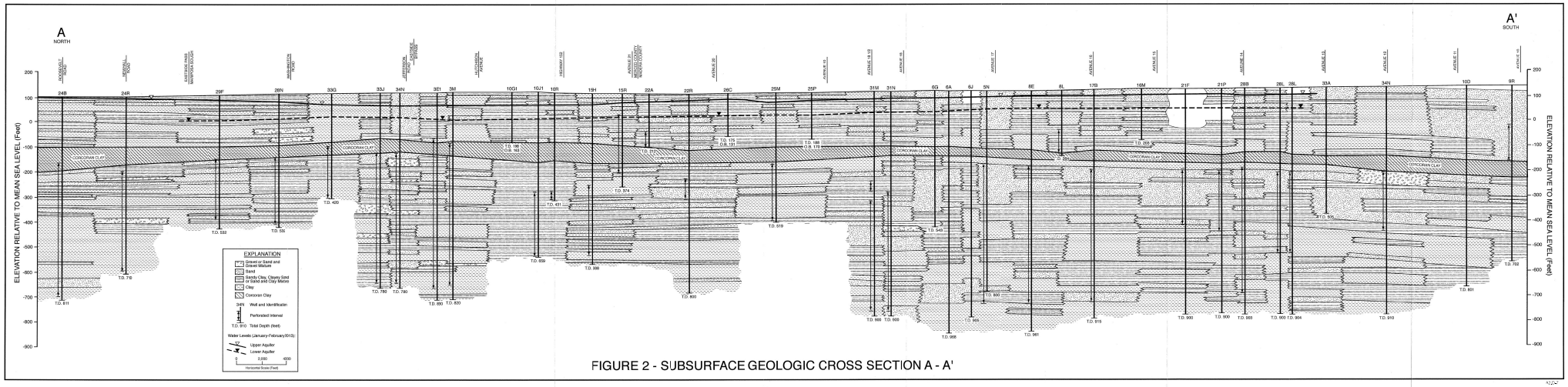


FIGURE 2 - SUBSURFACE GEOLOGIC CROSS SECTION A - A'

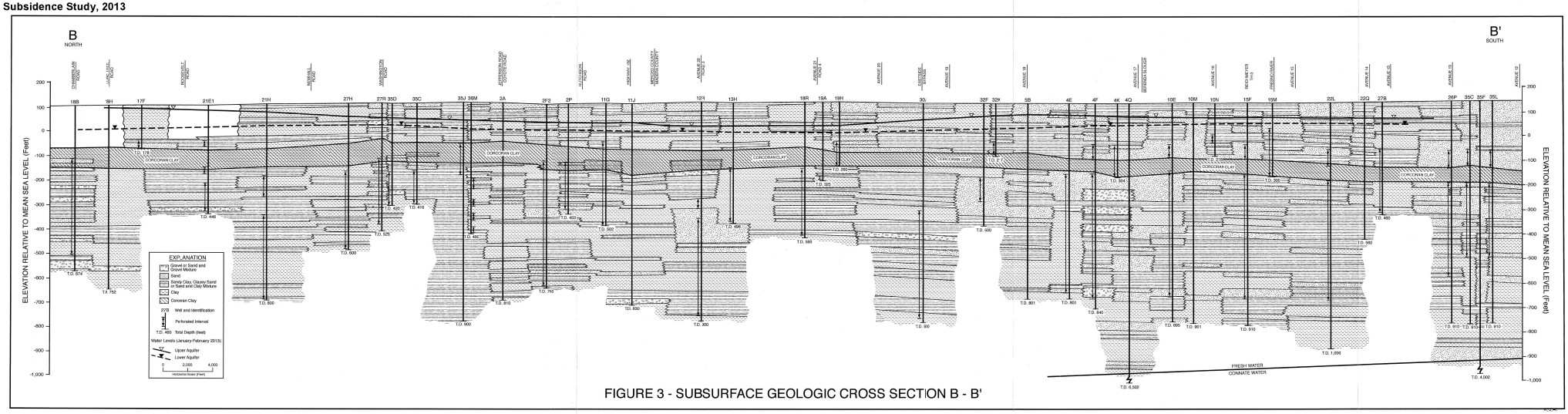


FIGURE 3 - SUBSURFACE GEOLOGIC CROSS SECTION B - B'

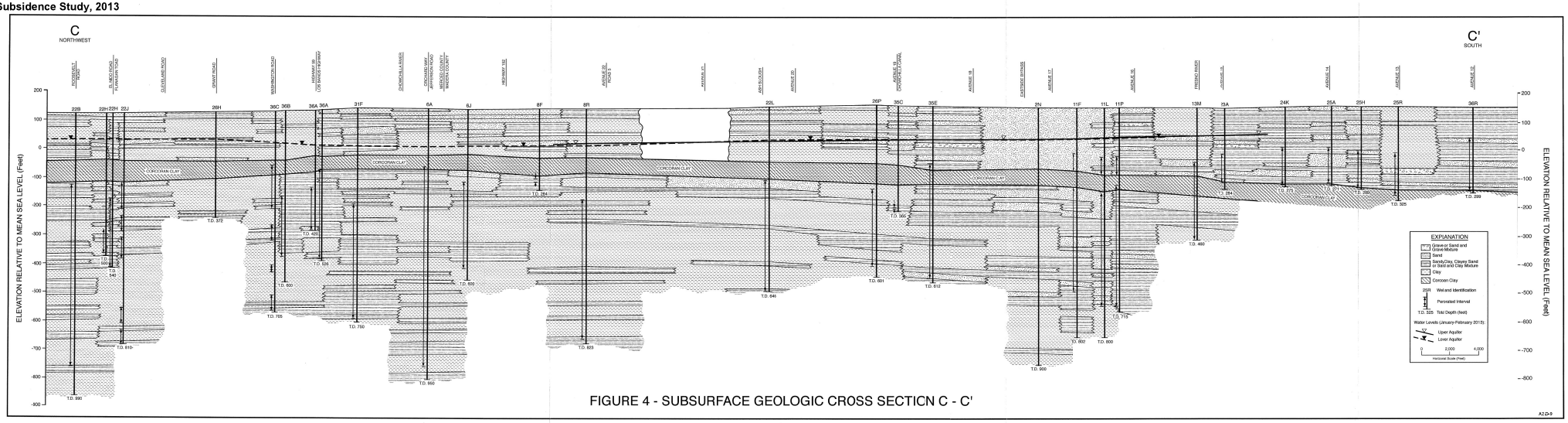


FIGURE 4 - SUBSURFACE GEOLOGIC CROSS SECTION C - C'

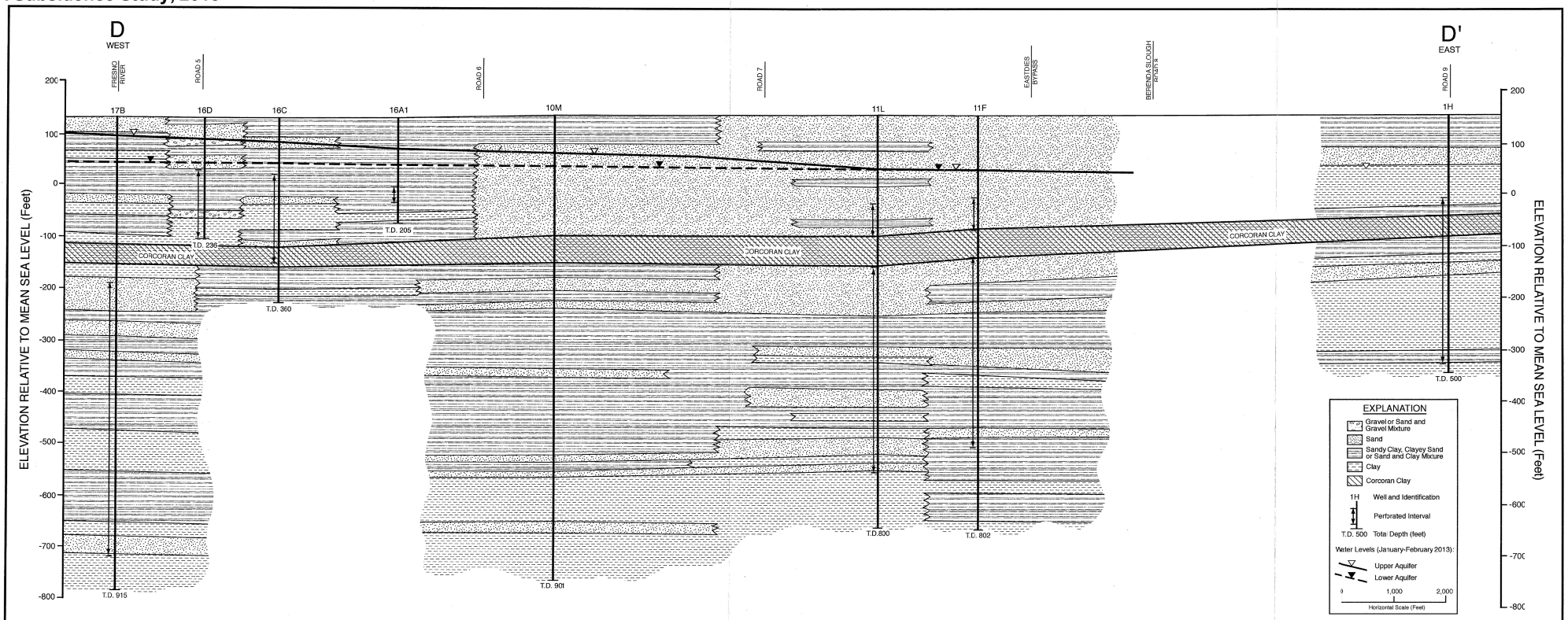


FIGURE 5 - SUBSURFACE GEOLOGIC CROSS SECTION D - D'

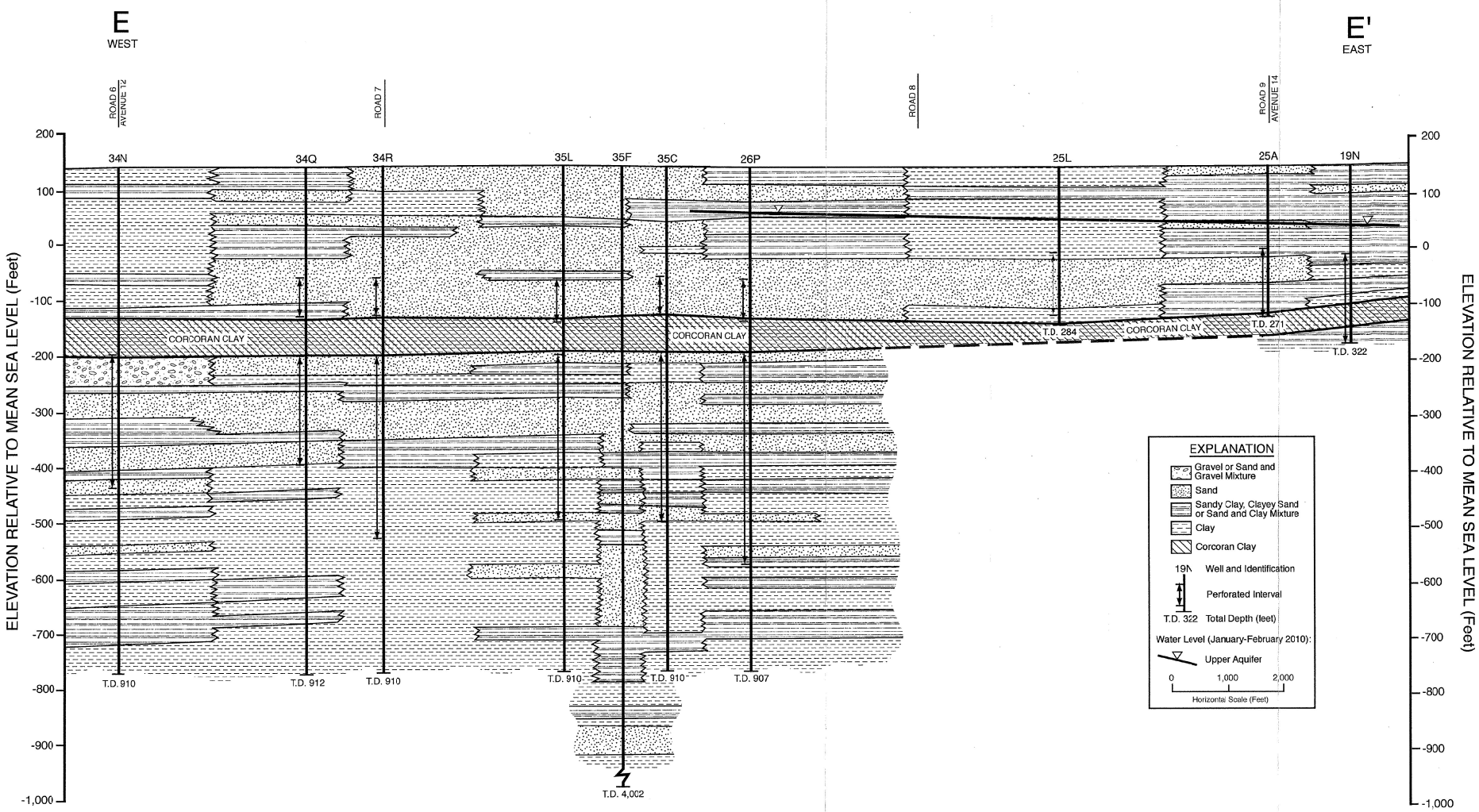


FIGURE 6 - SUBSURFACE GEOLOGIC CROSS SECTION E - E'

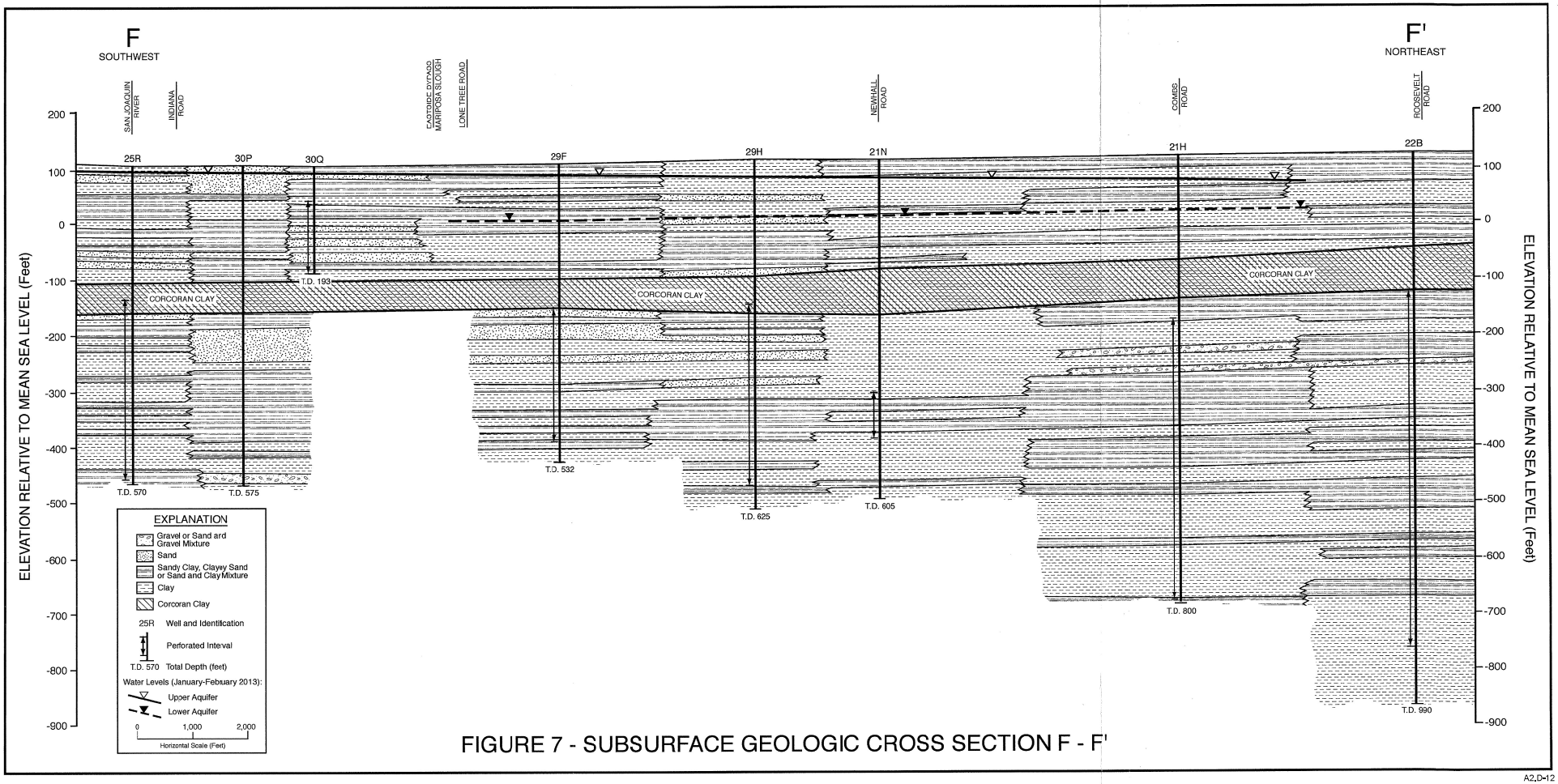
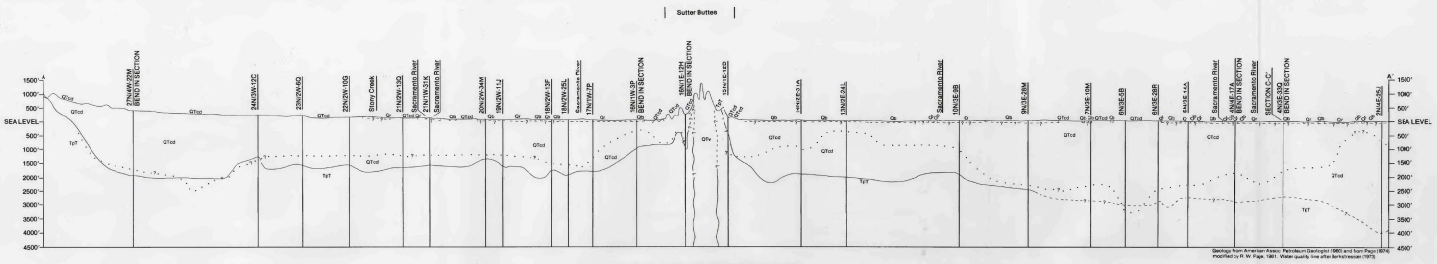
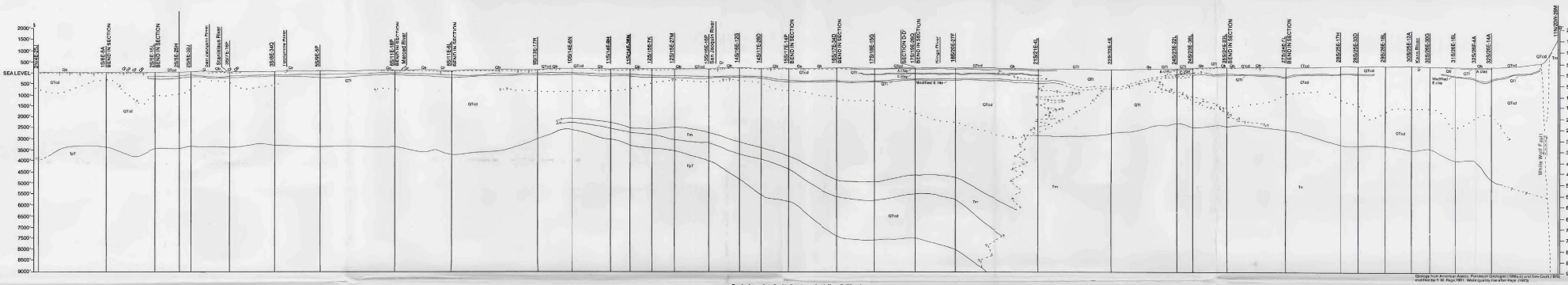


FIGURE 7 - SUBSURFACE GEOLOGIC CROSS SECTION F - F'

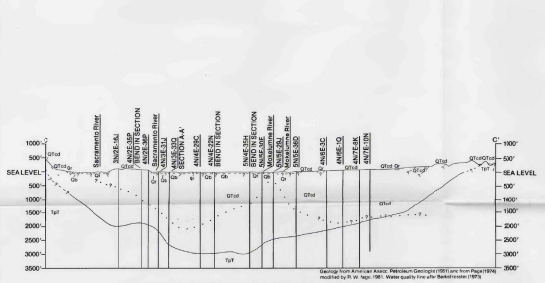
Page, 1986



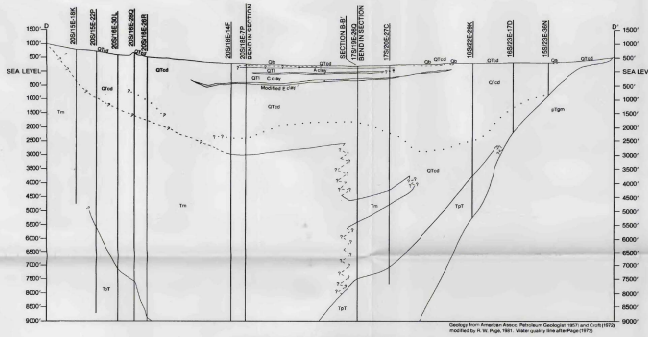
Geologic section A - A', Sacramento Valley, California
(See Plate 1 for location of section)



Geologic section B - B', San Joaquin Valley, California
(See Plate 2 for location of section)



Geologic section C - C', Sacramento Valley, California
(See Plate 1 for location of section)



Geologic section D - D', San Joaquin Valley, California
(See Plate 2 for location of section)

EXPLANATION OF SYMBOLS

Stratigraphic unit contact Approximately located; queried where data are inconclusive

Water quality line Below line dissolved - solids concentration greater than about 2,000 milligrams per liter; queried where data are inconclusive

Well and number

SCALE

0 1 2 3 4 5 6 MILES

VERTICAL EXAGGERATION x 21

CORRELATION OF SECTION UNITS

SACRAMENTO VALLEY

Qa, Qr	Holocene	QUATERNARY
QTof	Oligocene to Holocene	TERTIARY AND QUATERNARY
Qfv	Pliocene and Pleistocene	TERTIARY
TpT	Pre-Tertiary to Eocene	TERTIARY AND PRE-TERTIARY

SAN JOAQUIN VALLEY

Qa, Qd, Qr	Holocene	QUATERNARY
QTf	Pliocene to Holocene	TERTIARY AND QUATERNARY
QTof	Oligocene to Holocene	
Tm	Eocene, Oligocene, Miocene, and Pliocene	TERTIARY
TpT	Pre-Tertiary to Oligocene	TERTIARY AND PRE-TERTIARY
pTgm	Pre-Tertiary	PRE-TERTIARY

DESCRIPTION OF SECTION UNITS

SACRAMENTO VALLEY SECTION A - A' and C - C'

	A - A'	C - C'
Qa **Flood-basin deposits (Holocene)** Clay, silt, and some sand;	In southern part of section consist of muck, peat, and other organic soils. In places may include part of the Modesto Formation (Pleistocene)	In western part of section consist of muck, peat, and other organic soils. In places may include part of the Modesto Formation (Pleistocene)
Qr **River deposits (Holocene)** Gravel, sand, silt, and minor amounts of clay deposited along channels, flood plains, and natural levees of major streams. In places may include part of the Modesto Formation (Pleistocene)	Description at left	Description at left
QTof **Continental rocks and deposits (Oligocene to Holocene)** Chiefly heterogeneous mix of gravel, sand, silt, and clay, some cobbles and boulders, sandstone, breccia, and conglomerate. Principal unit, continental rocks and deposits (Pliocene to Holocene)...	On this section include volcanic rocks and deposits at Sutter Buttes (Pliocene and Pleistocene) of tuff and tuff breccia. Also on this section may include volcanic rocks and deposits (Miocene and Pliocene), continental rocks and deposits (Miocene and Pliocene)–mostly Mehrten Formation or an equivalent, and continental rocks and deposits (Oligocene and Miocene)–mostly Valley Springs Formation or an equivalent	On this section include some volcanic rocks and deposits (Miocene and Pliocene) near western side, continental rocks and deposits (Miocene and Pliocene)–mostly Mehrten Formation on eastern side, and may include Mehrten or or equivalent near central part and continental rocks and deposits (Oligocene and Miocene)–mostly Valley Springs Formation on eastern side and may include Valley Springs or an equivalent near central part
Qfv **Volcanic rocks (Pliocene and Pleistocene** Andesitic and rhyolitic porphyry and tuff at one of Sutter Buttes	Description at left	Not present
TpT **Continental and marine rocks and deposits (Pre-Tertiary to Eocene)** Continental rocks and deposits, chiefly sandstone with some conglomerate and shale; marine rocks and deposits of clay, shale, siltstone, and sandstone...	On this section include continental rocks and deposits (Eocene)–mostly Ione Formation or an equivalent, marine rocks and deposits (Paleocene and Eocene), and marine rocks (Pre-Tertiary)	On this section include continental rocks and deposits (Eocene)–mostly Ione Formation on eastern side, and Ione or an equivalent near central part, marine rocks and deposits (Paleocene to Oligocene), and marine rocks (Pre-Tertiary)

SAN JOAQUIN VALLEY SECTION B - B' and D - D'

	B - B'	E - D'
Qa **Sand dunes (Holocene)** Windblown sand and dune sand	Description at left	Description at left
Qd **Flood-basin deposits (Holocene)** Clay, silt, and some sand;	Near northern end of section consist of muck, peat, and other organic soils	Description at left
Qr **River deposits (Holocene)** Gravel, sand, silt, and minor amounts of clay; deposited along channels, flood plains and natural levees of main streams.	Description at left	Not present
Qfl **Lacustrine and marsh deposits (Pliocene to Holocene)** Clay, silt, and some sand; in subsurface include three widespread clays: A clay (Pleistocene and Holocene?), C clay (Pleistocene), and modified E clay (Pleistocene). Includes Corcoran Clay Member of Tulare Formation	Description at left	Description at left
QTof **Continental rocks and deposits (Oligocene to Holocene)** Heterogeneous mix of generally poorly sorted clay, silt, sand, and gravel, some beds of claystone, siltstone, sandstone, and conglomerate...	On this section, principal unit, continental rocks and deposits (Miocene to Holocene): in northern part of section may include continental rocks and deposits (Miocene and Pliocene)–mostly Mehrten Formation or an equivalent, and continental rocks and deposits (Oligocene and Miocene)–mostly Valley Springs Formation or an equivalent. Include continental rocks and deposits (Miocene and Pliocene)–chiefly the Chanac Formation (Miocene) at extreme southern end of section, and the Zilch Formation of informal subsurface usage, which is considered to be the continental equivalent of the Marine Temblor Formation (Oligocene and Miocene)	On this section, principal unit continental rocks and deposits (Miocene to Holocene): at depth include the Zilch formation of informal subsurface usage, which is considered to be the continental equivalent of the marine Temblor Formation (Oligocene and Miocene)
Tm **Marine rocks and deposits (Eocene, Oligocene, Miocene, and Pliocene)** Sand, clay, silt, sandstone, shale, mudstone, and siltstone. On these section include marine rocks and deposits of Miocene and Pliocene age only	Description at left	Description at left
TpT **Continental and marine rocks and deposits (Pre-Tertiary to Oligocene)** Continental rocks and deposits of clay, shale, sand, sandstone and conglomerate; marine rocks and deposits of clay, shale, sandstone, and conglomerate...	On this section include marine rocks and deposits of Eocene and Oligocene age, also include some Paleocene marine rocks. Include continental rocks and deposits (Eocene to Miocene)– chiefly Walker Formation (Eocene to Miocene) at depths off the section - greater than 13,000ft, where the Walker Formation underlies Eocene, marine sediments. Include marine rocks (Pre-Tertiary)	On this section include marine rocks and deposits of Eocene and Oligocene age, some Paleocene marine rocks, some unnamed continental rocks (Pre-Tertiary age) on eastern end of section, and marine rocks (Pre-Tertiary)
pTgm **Granitic and metamorphic rocks (Pre-Tertiary)** Granitic rocks with some mafic intrusive rocks, and metasedimentary and metavolcanic rocks. Include granitic rocks (Pre-Tertiary) and metamorphic rocks (Pre-Tertiary)	Not present	Description at left

A2-3-13

GEOLOGIC SECTIONS A - A' THROUGH D - D', SACRAMENTO VALLEY AND SAN JOAQUIN VALLEY, CALIFORNIA

Table of Aquifer Property Data

Well_ID	Data Source	Subbasin	Latitude	Longitude	Town-ship	Range	Sec	Depth Zone	Well Type	Total Depth (ft)	Top of Perforations (ft)	Bottom of Perforations (ft)	Well Casing Diameter (in)	Test Date	Test Discharge rate (gpm)	Test Duration (hr)	Well Specific Capacity (gpm/ft)	Transmissivity from Aquifer Test (gpd/ft)	Transmissivity from Well Specific Capacity (x1500) (gpd/ft)	Transmissivity from Well Specific Capacity (x2000) (gpd/ft)	Note
10S/16E-24H01	USGS-Mitten et al., 1970	Chowchilla	37.04771	-120.175				Composite		183						15.8		18,000			Hantush method
13S/17E-01L01	USGS-Mitten et al., 1970	Chowchilla	36.82996	-120.06942				Upper Aquifer		345						20.8		50,000			Hantush (Jacob T=99,000)
WCR0012267	WCR	Chowchilla	36.995555	-120.413333	11S	14E	11	Composite	Agriculture/Irrigation	260	90	220			900	2	50.0		75,000	100,000	
WCR0017472	WCR	Chowchilla	37.16371	-120.35615	09S	15E	8	Lower Aquifer	Agriculture/Irrigation	700	215	690	16		4,192	26	127.0		190,545	254,061	
WCR0017473	WCR	Chowchilla	37.16372	-120.31987	09S	15E	10	Lower Aquifer	Agriculture/Irrigation	540	320	530	16		4,408	30	32.9		49,343	65,791	
WCR0056165	WCR	Chowchilla	37.01816	-120.46457	10S	14E	32	Composite	Agriculture/Irrigation	260	150	250	16		6,000	24	77.9		116,883	155,844	
WCR0062850	WCR	Chowchilla	37.01816	-120.46457	10S	14E	32	Upper Aquifer	Agriculture/Irrigation	204	120	153	18		3,900	12	150.0		225,000	300,000	
WCR0068892	WCR	Chowchilla	37.09098	-120.26566	10S	16E	6	Lower Aquifer	Agriculture/Irrigation	559	277	540	16		900	8	32.1		48,214	64,286	
WCR0103900	WCR	Chowchilla	37.16362	-120.37416	09S	15E	7	Lower Aquifer	Agriculture/Irrigation	1032	220	585	16		4,500	15	66.2		99,265	132,353	
WCR0120517	WCR	Chowchilla	37.108333	-120.271944	09S	16E	31	Lower Aquifer	Municipal/Public Supply	795	475	795	16		1,500	6	24.6		36,885	49,180	
WCR0127074	WCR	Chowchilla	37.07621	-120.46439	10S	14E	8	Lower Aquifer	Agriculture/Irrigation	847	230	847	16		1,500	24	8.9		13,393	17,857	
WCR0152919	WCR	Chowchilla	36.94566	-120.35483	11S	15E	29	Composite	Agriculture/Irrigation	300	150	300	16		4,000	21	93.0		139,535	186,047	
WCR0161027	WCR	Chowchilla	36.98908	-120.46436	11S	14E	8	Upper Aquifer	Agriculture/Irrigation	186	120	173	18		3,600	10	90.0		135,000	180,000	
WCR0165177	WCR	Chowchilla	37.149	-120.17487	09S	16E	13	Lower Aquifer	Agriculture/Irrigation	790	290	790	16		600	12	10.7		16,071	21,429	
WCR0169808	WCR	Chowchilla	37.06171	-120.41003	10S	14E	14	Lower Aquifer	Agriculture/Irrigation	800	200	800	16		2,800	10	15.6		23,464	31,285	
WCR0228666	WCR	Chowchilla	37.04729	-120.28349	10S	15E	24	Lower Aquifer	Agriculture/Irrigation	650	425	645			1,800	5	20.5		30,682	40,909	
WCR0238216	WCR	Chowchilla	37.141833	-120.252083	09S	16E	14	Lower Aquifer	Agriculture/Irrigation	810	385	800	36		2,000	10	52.6		78,947	105,263	
WCR0242828	WCR	Chowchilla	37.14719	-120.28342	09S	15E	13	Lower Aquifer	Agriculture/Irrigation	444	238	438	16		3,670	14	23.8		35,747	47,662	
WCR0250233	WCR	Chowchilla	37.149	-120.17487	09S	16E	13	Lower Aquifer	Agriculture/Irrigation	700	275	275	30		700	12	10.8		16,154	21,538	
WCR0250335	WCR	Chowchilla	37.03273	-120.50163	10S	13E	25	Upper Aquifer	Agriculture/Irrigation	192			16		4,500		68.2		102,273	136,364	
WCR0254211	WCR	Chowchilla	37.07608	-120.39182	10S	14E	12	Lower Aquifer	Agriculture/Irrigation	780	210	760			1,850	1	22.6		33,841	45,122	
WCR0256821	WCR	Chowchilla	37.076635	-120.22939	10S	16E	9	Lower Aquifer	Agriculture/Irrigation	955	270	935	36		2,800	6	46.7		70,000	93,333	
WCR0277636	WCR	Chowchilla	37.047279	-120.501508	10S	13E	24	Lower Aquifer	Other/Unknown	600	300	600	30		2,100	12	8.5		12,702	16,935	
WCR0282593	WCR	Chowchilla	37.07608	-120.39182	10S	14E	12	Composite	Agriculture/Irrigation	750					2,000	18	12.8		19,231	25,641	
WCR0291776	WCR	Chowchilla	37.149027	-120.244944	09S	16E	17	Lower Aquifer	Agriculture/Irrigation	770	372	750	36		2,000	10	58.8		88,235	117,647	
WCR0310201	WCR	Chowchilla	37.06172	-120.30158	10S	15E	14	Lower Aquifer	Agriculture/Irrigation	665	375	660			1,200	5	14.3		21,429	28,571	
WCR2017-001038	WCR	Chowchilla	37.00813	-120.4909	11S	14E	6	Upper Aquifer	Agriculture/Irrigation	280					1,600	14	11.6		17,391	23,188	
WCR2017-001090	WCR	Chowchilla	36.99508	-120.42827	11S	14E	10	Upper Aquifer	Agriculture/Irrigation	270					1,200	10	16.4		24,658	32,877	
WCR2017-003791	WCR	Chowchilla	36.98672	-120.46425	11S	14E	8	Upper Aquifer	Agriculture/Irrigation	280					1,800	8	14.3		21,429	28,571	

APPENDIX 2.E. CURRENT AND HISTORICAL GROUNDWATER CONDITIONS

Prepared as part of the

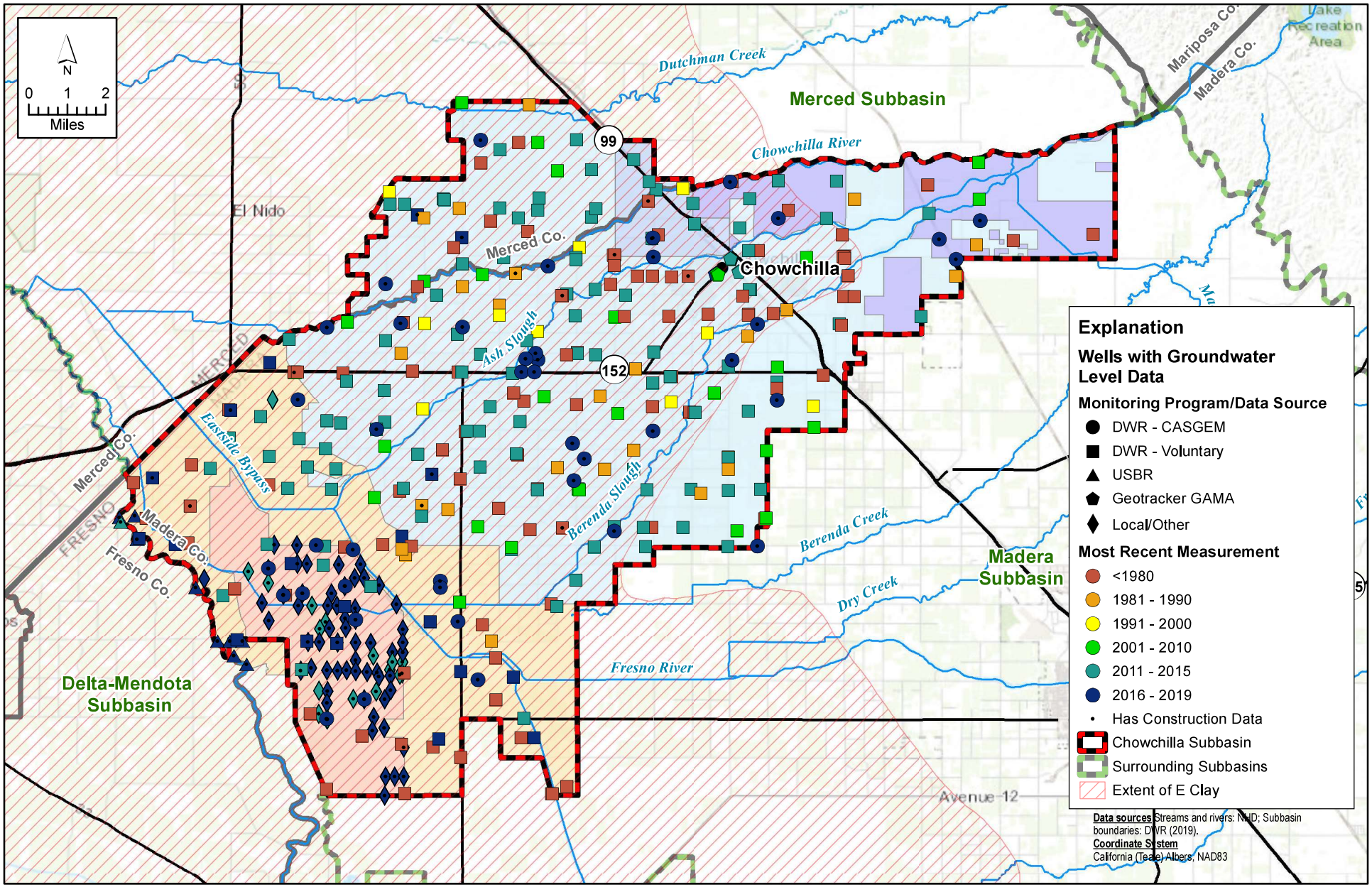
Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

Existing and Historical Groundwater Monitoring Programs



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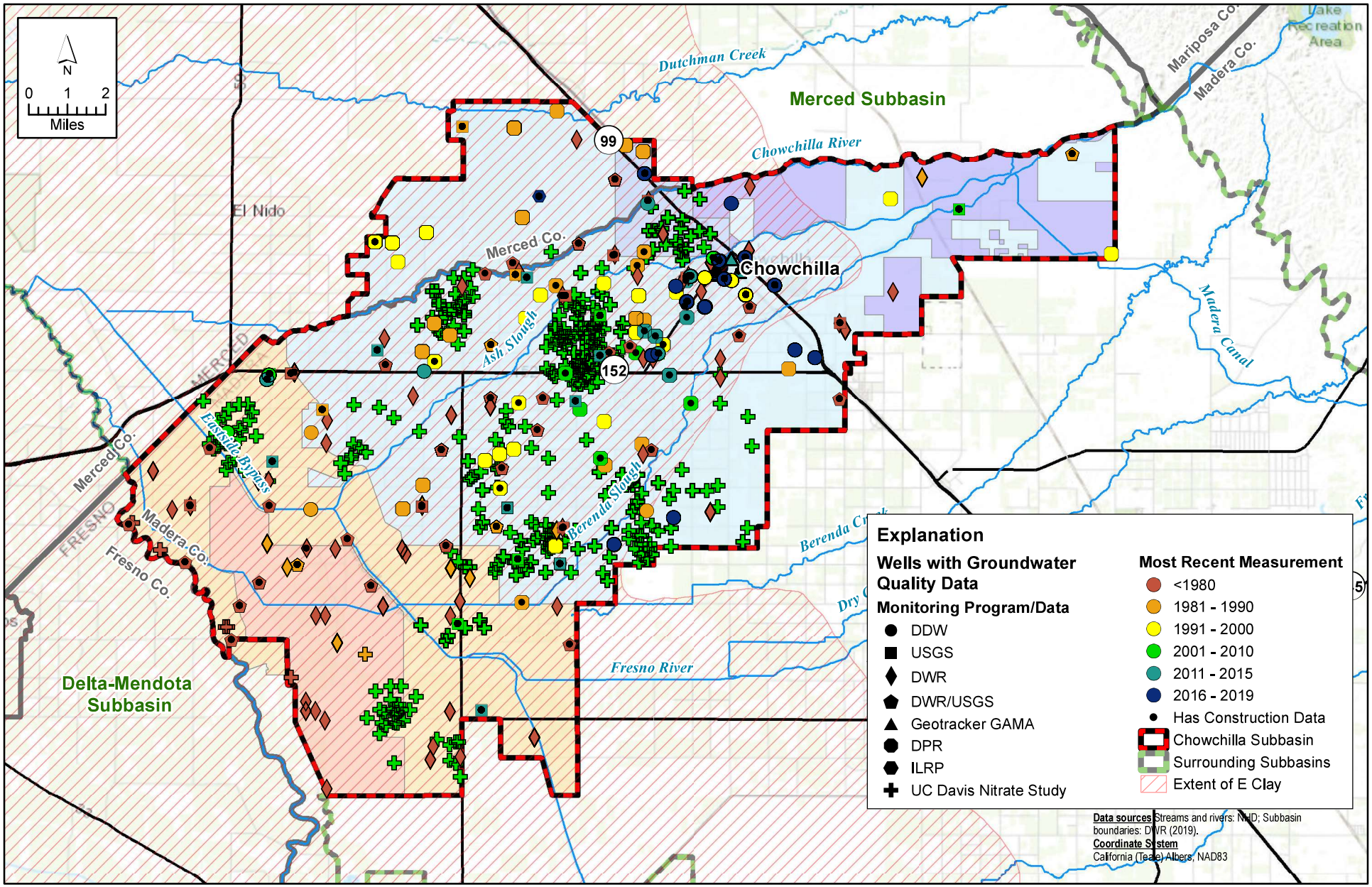
Luhdorff & Scalmanini Consulting Engineers

APPENDIX 2.E
Existing and Historical Groundwater Level Monitoring Programs



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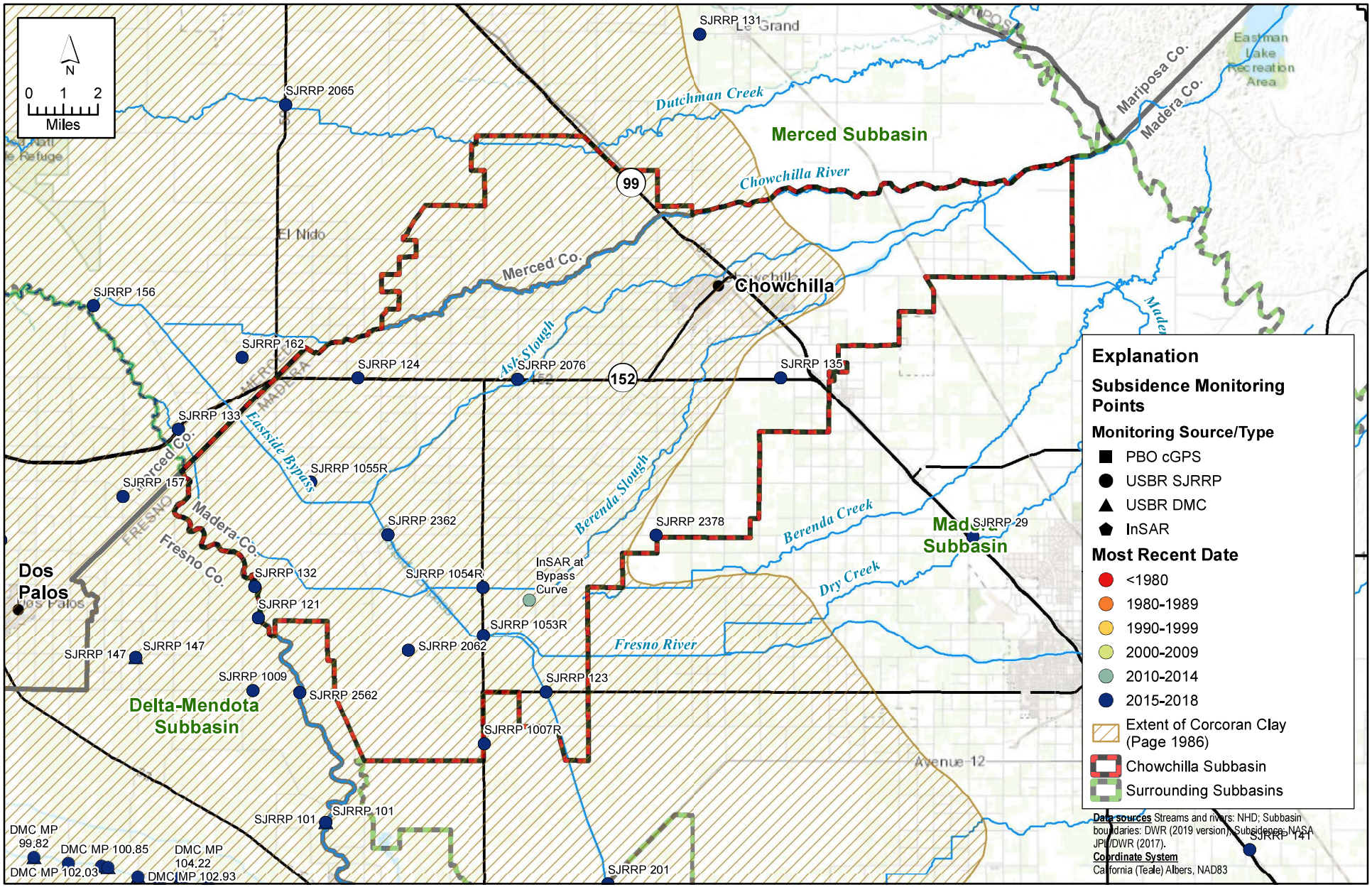
APPENDIX 2.E
Existing and Historical Groundwater Quality Monitoring Programs



X:\2018\18-017 Chowchilla GSP Development\GIS\Map files\Report Figures\Appendix 2.E Chowchilla Subbasin Existing and Historical Land Subsidence Monitoring.mxd

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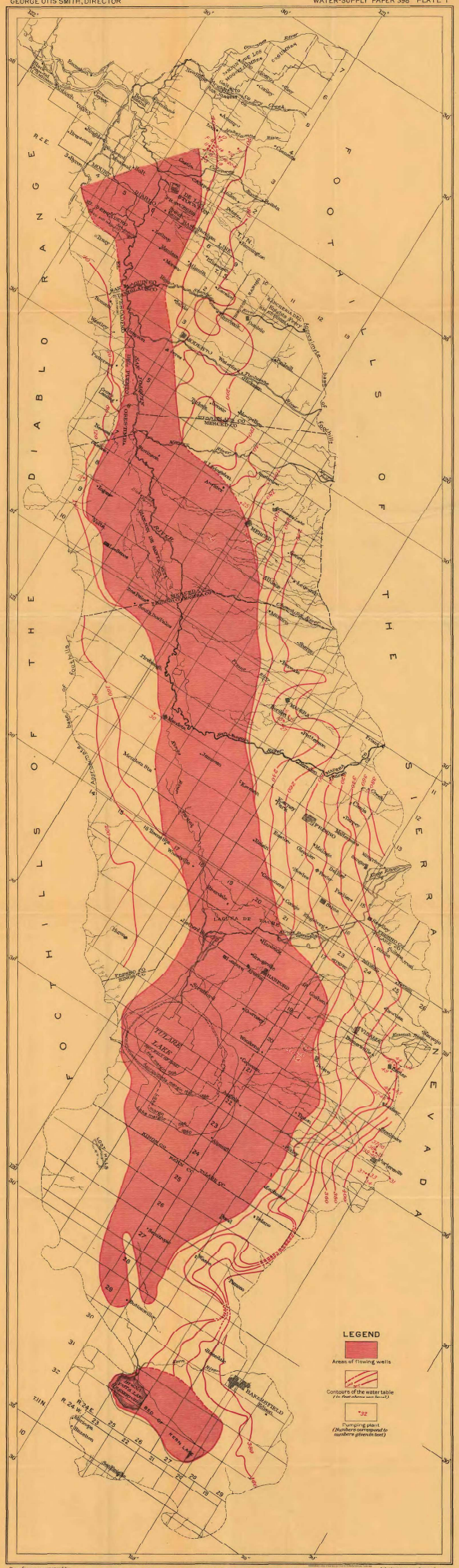
Luhdorff & Scalmanini Consulting Engineers

APPENDIX 2.E

Existing and Historical Land Subsidence Monitoring

Groundwater Elevation

Contour Maps



Base from map prepared by W. C. Mendenhall. Corrected from U.S.G.S. topographic atlas sheets

MAP OF SAN JOAQUIN VALLEY, CALIFORNIA

SHOWING ARTESIAN AREAS, GROUND-WATER LEVELS AND LOCATION OF PUMPING PLANTS

Artesian areas and ground-water levels by Herman Stabler
Pumping plants by Herman Stabler

Scale 1:625,000

5 0 5 10 15 20 Miles

10 0 10 20 Kilometers

1915

A2.E-6

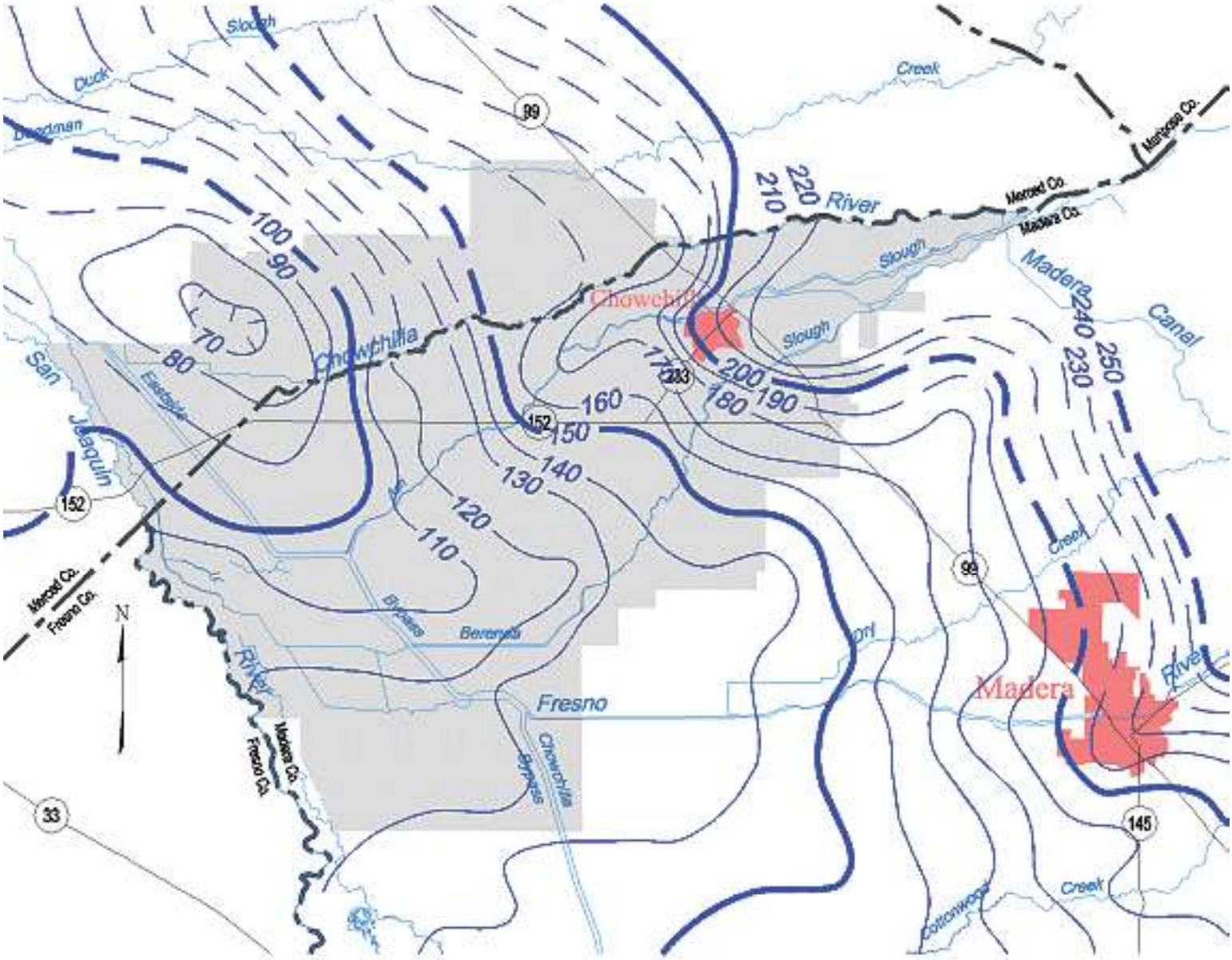
Chowchilla Groundwater Basin

Spring 1958, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10 feet.

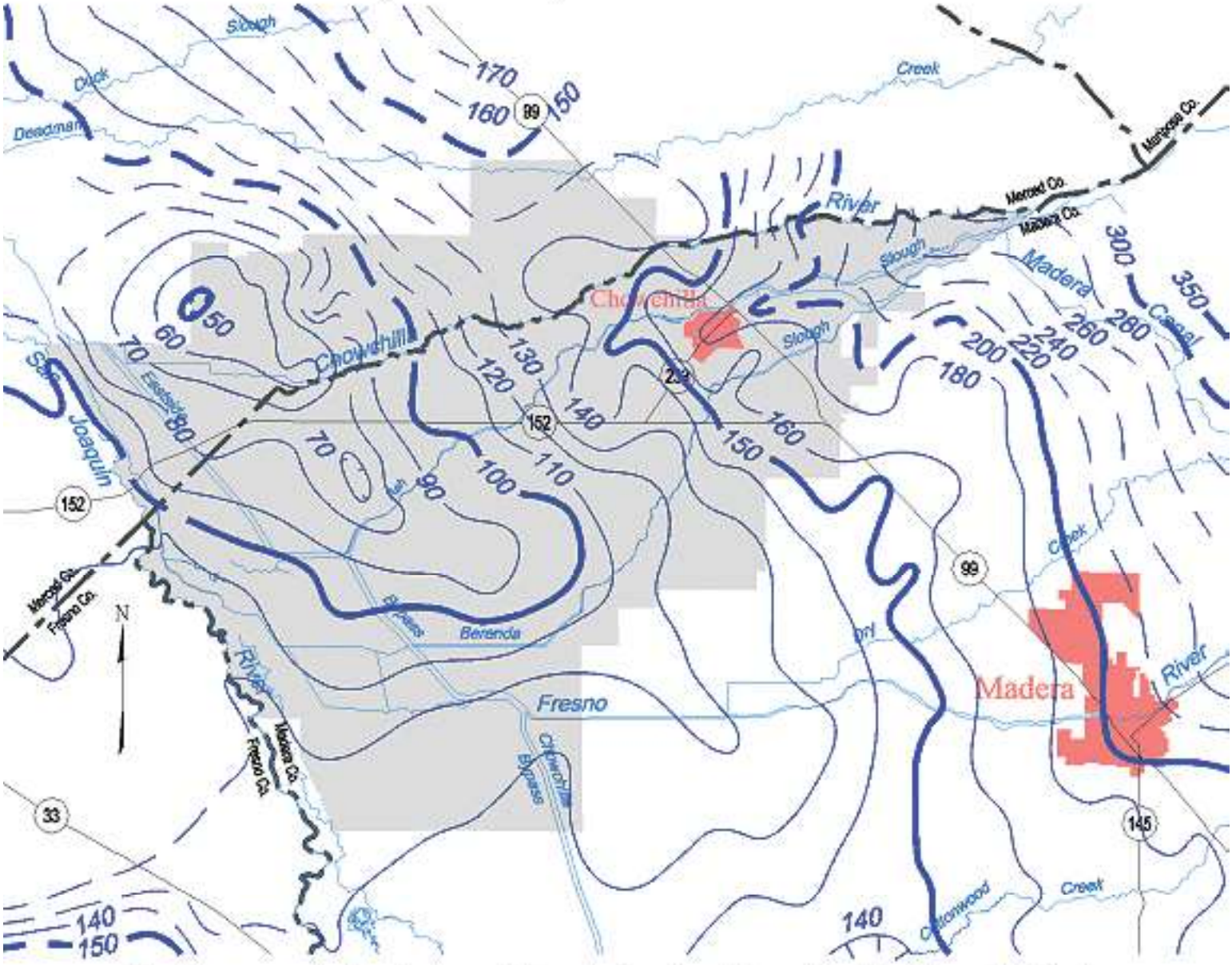
Chowchilla Groundwater Basin

Spring 1962, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10, 20 and 50 feet.

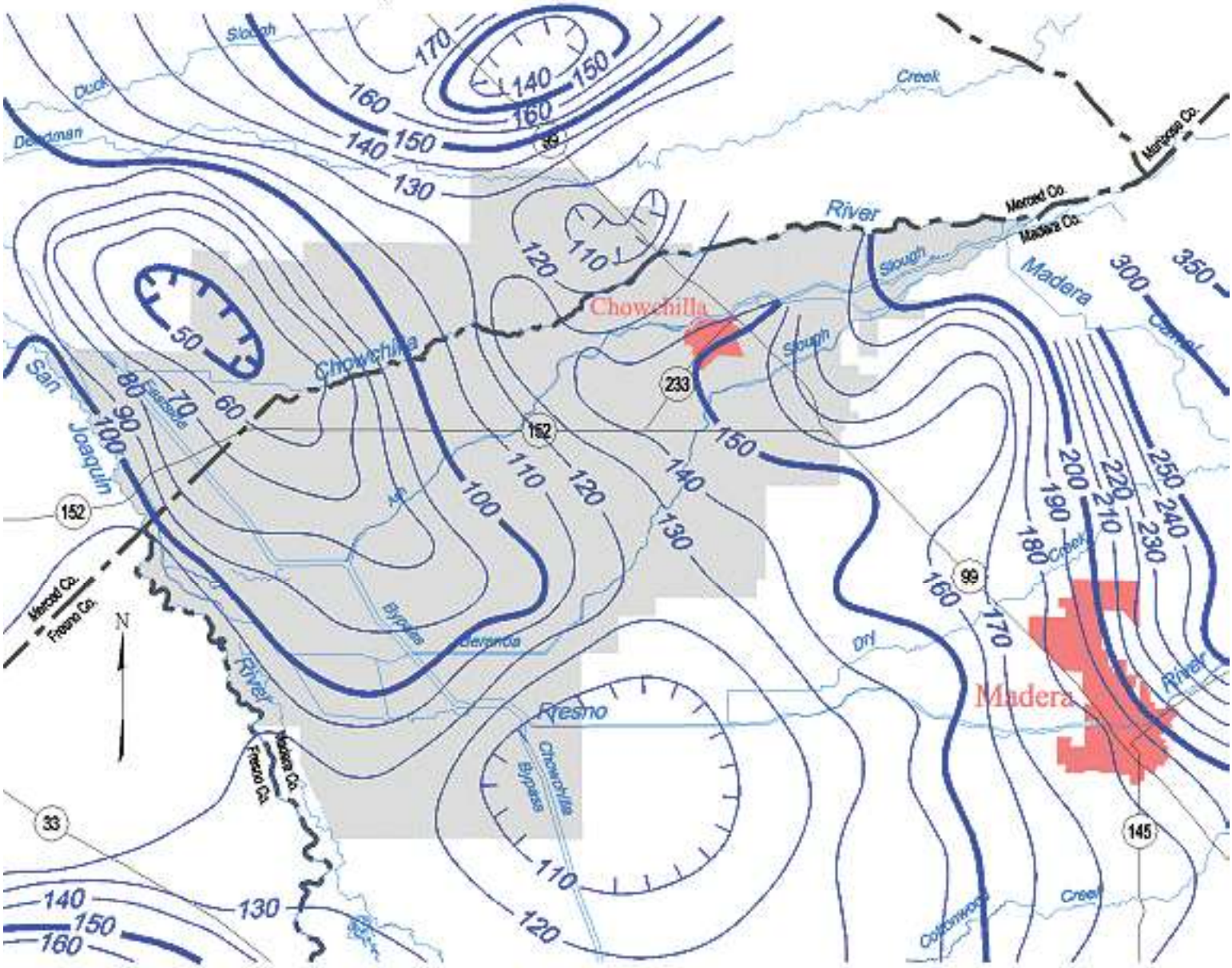
Chowchilla Groundwater Basin

Spring 1969, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10 and 50 feet.

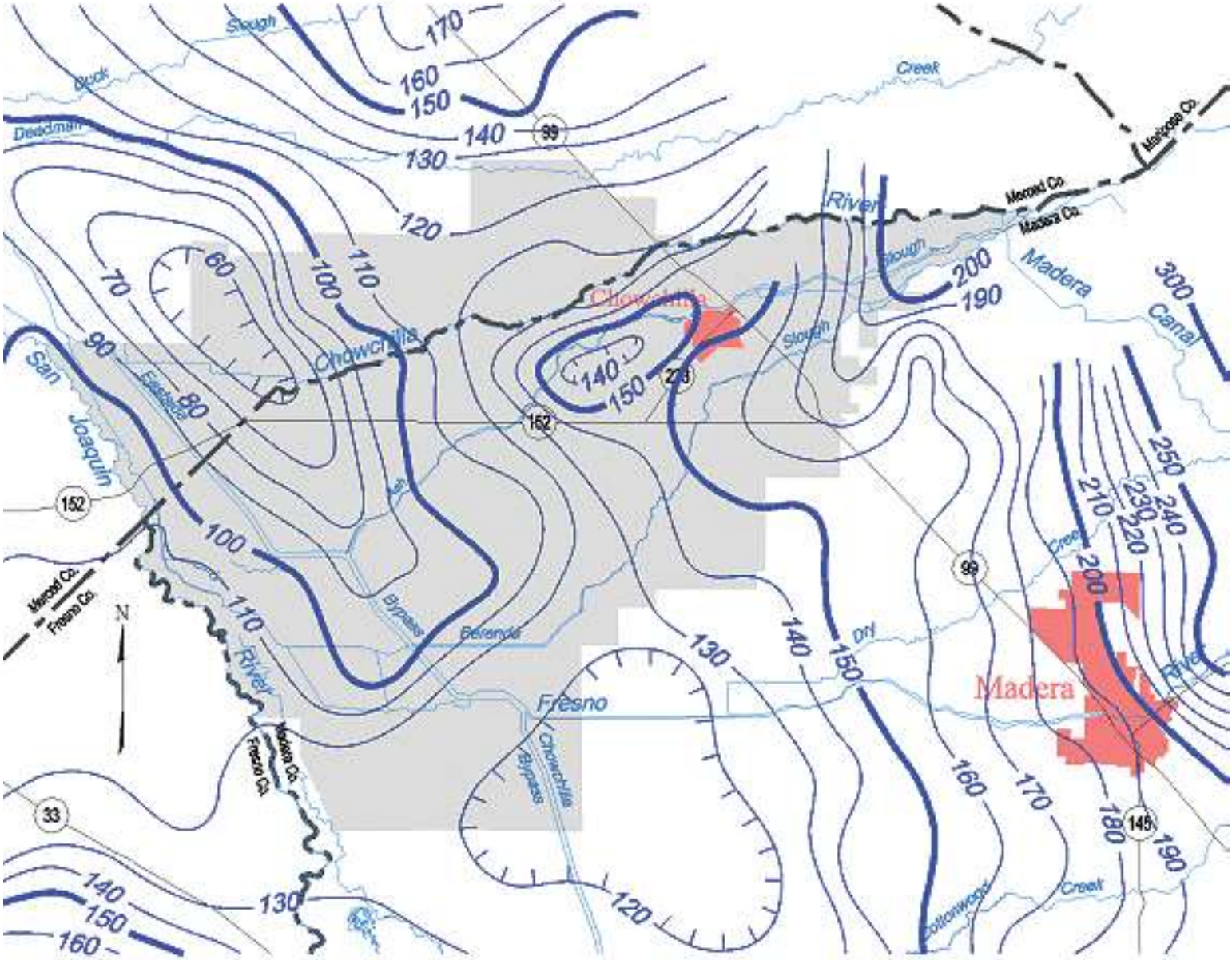
Chowchilla Groundwater Basin

Spring 1970, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10 and 50 feet.

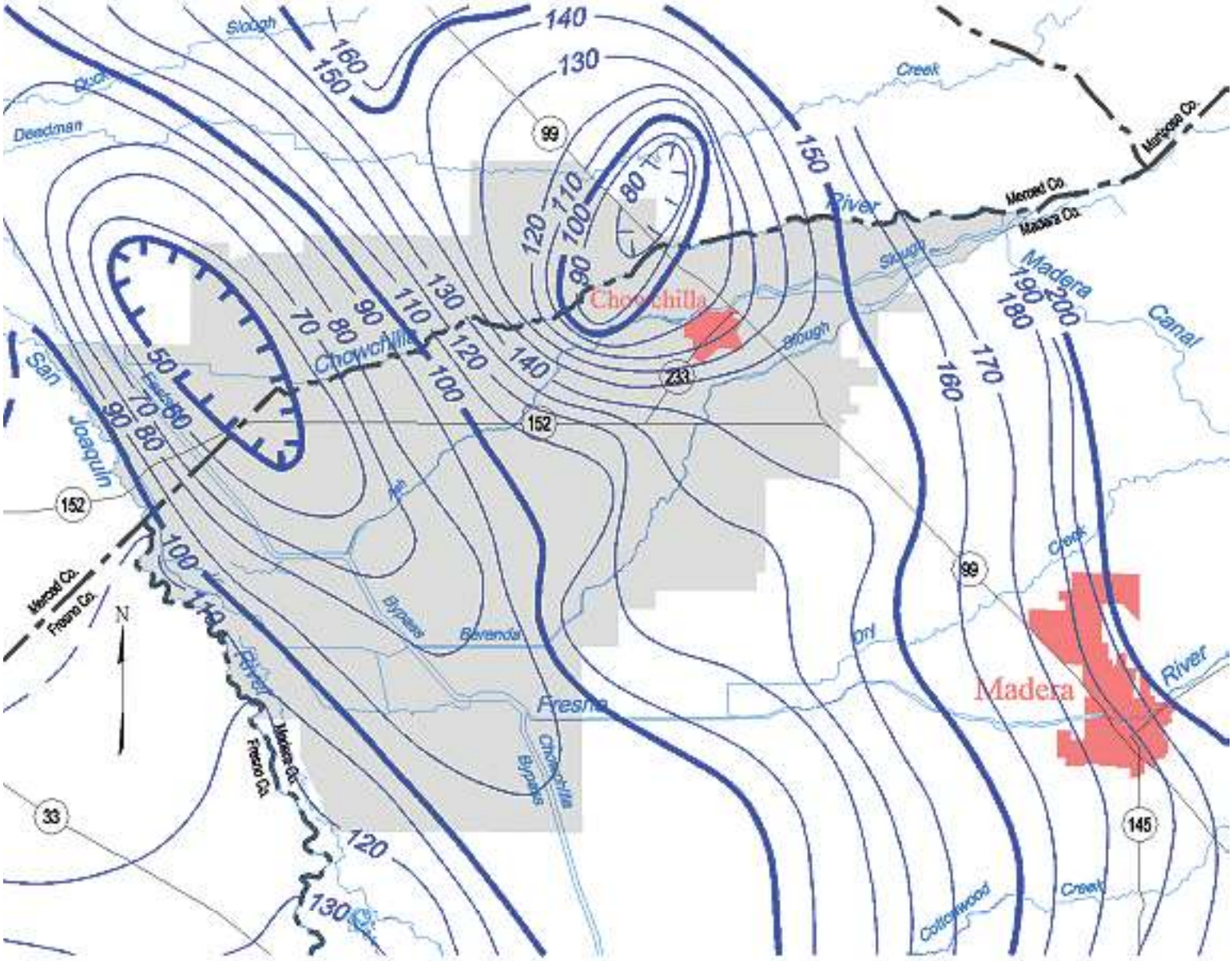
Chowchilla Groundwater Basin

Spring 1976, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10 feet.

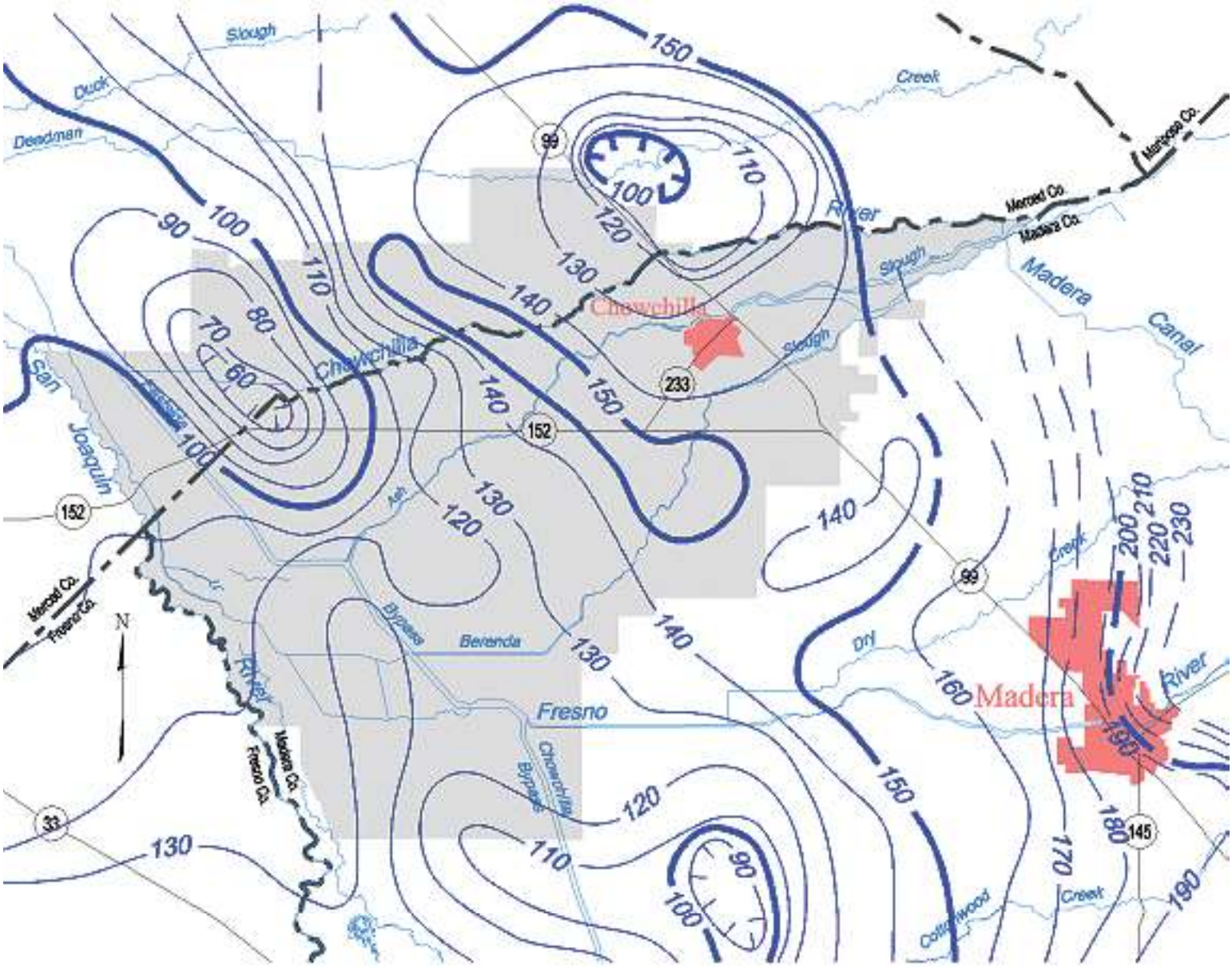
Chowchilla Groundwater Basin

Spring 1984, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

2 0 2 4 6

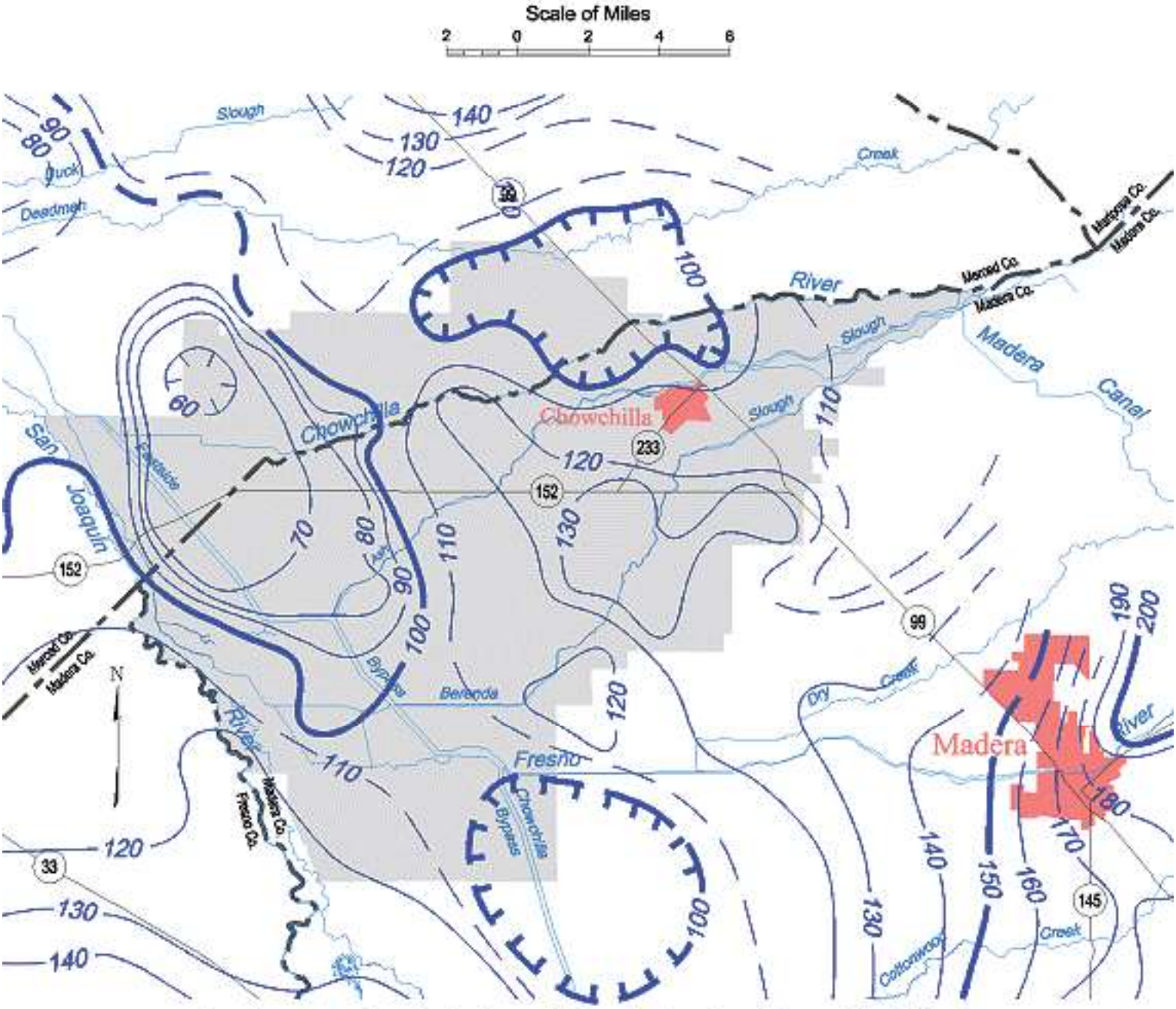
Disclaimer: Base map created from current USGS 1:24,000 and 1:100,000 maps. Some base map features may not have been present (i.e. roads, canals, reservoirs) for the water year shown.



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

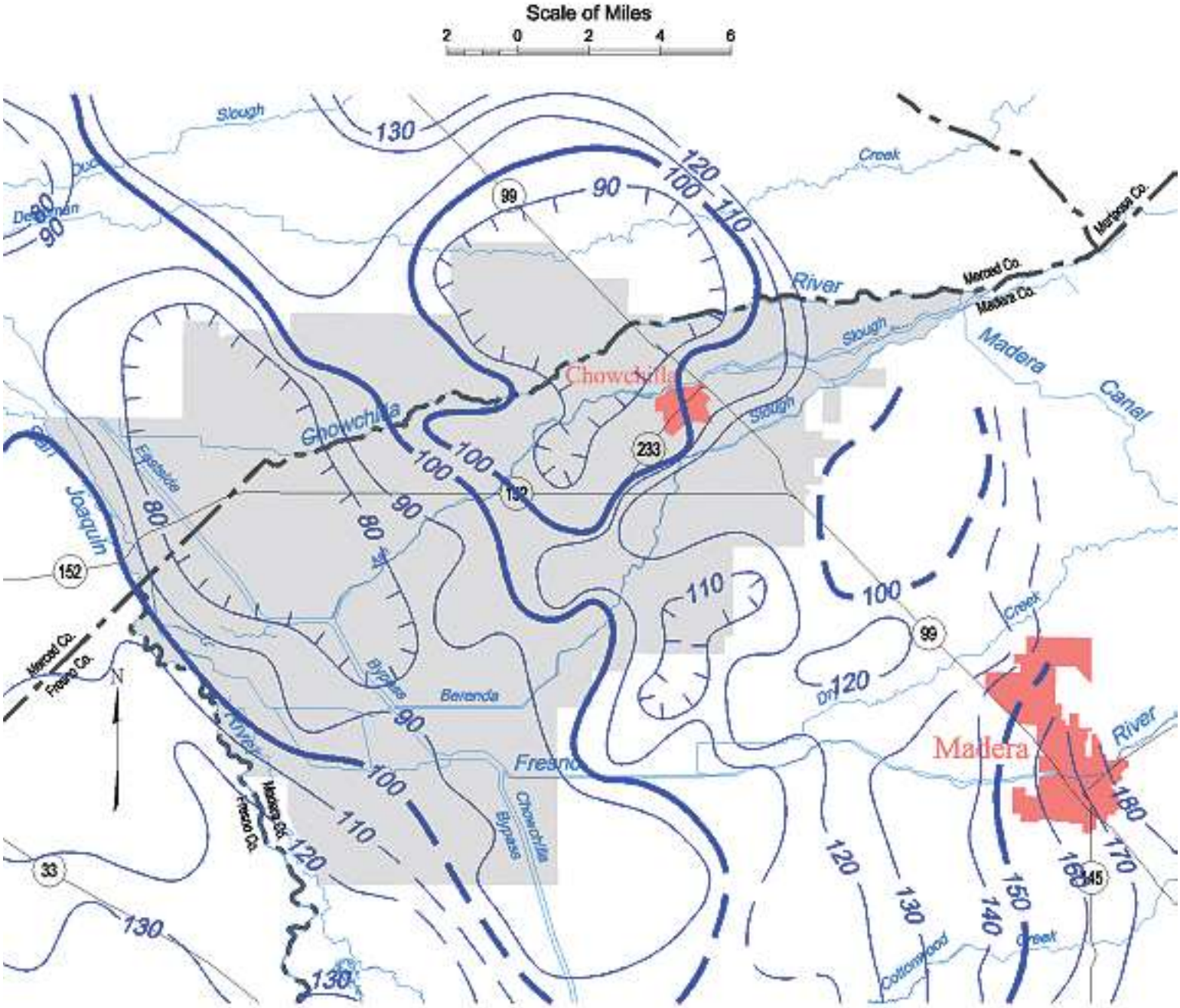
Spring 1989, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

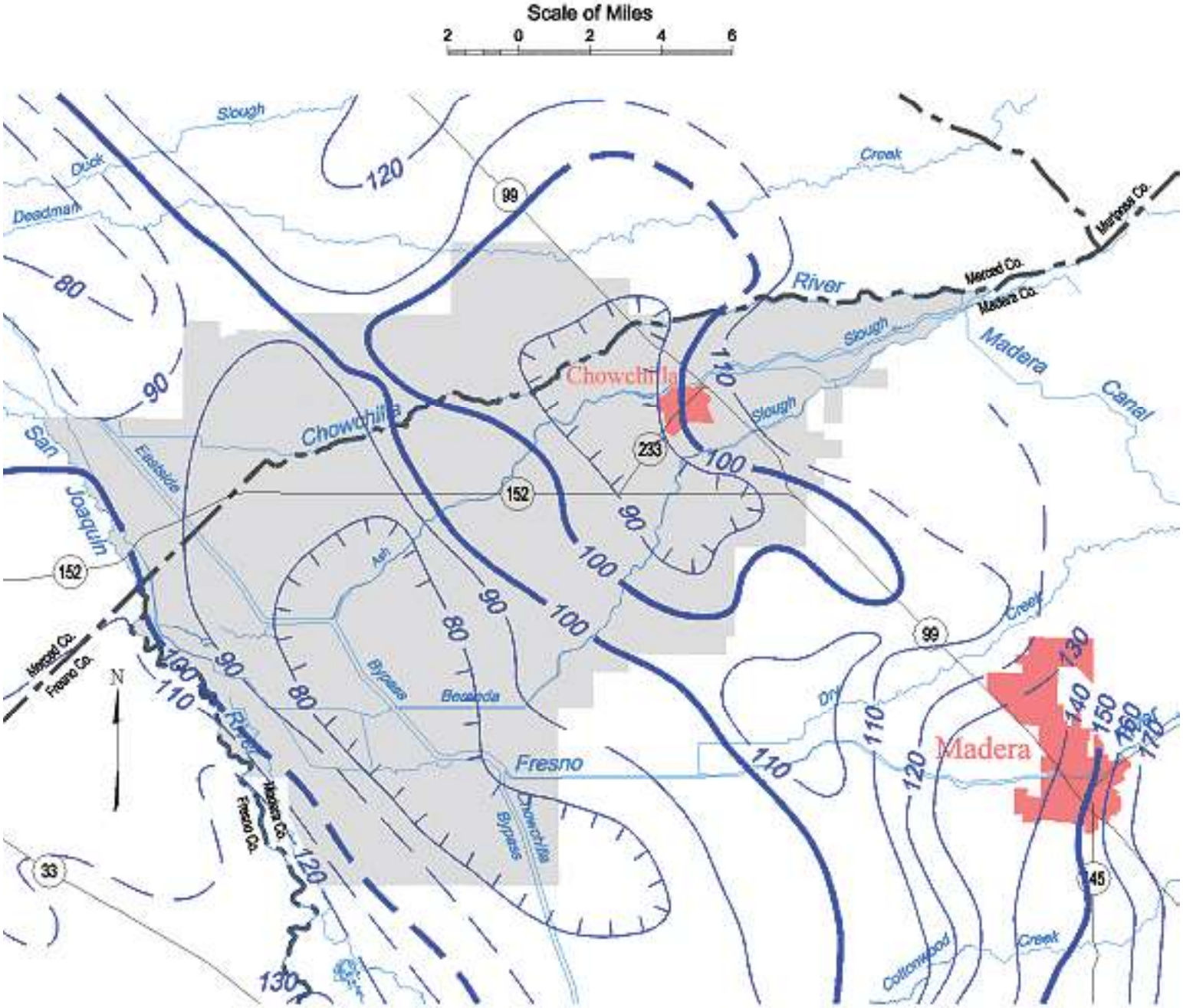
Spring 1990, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

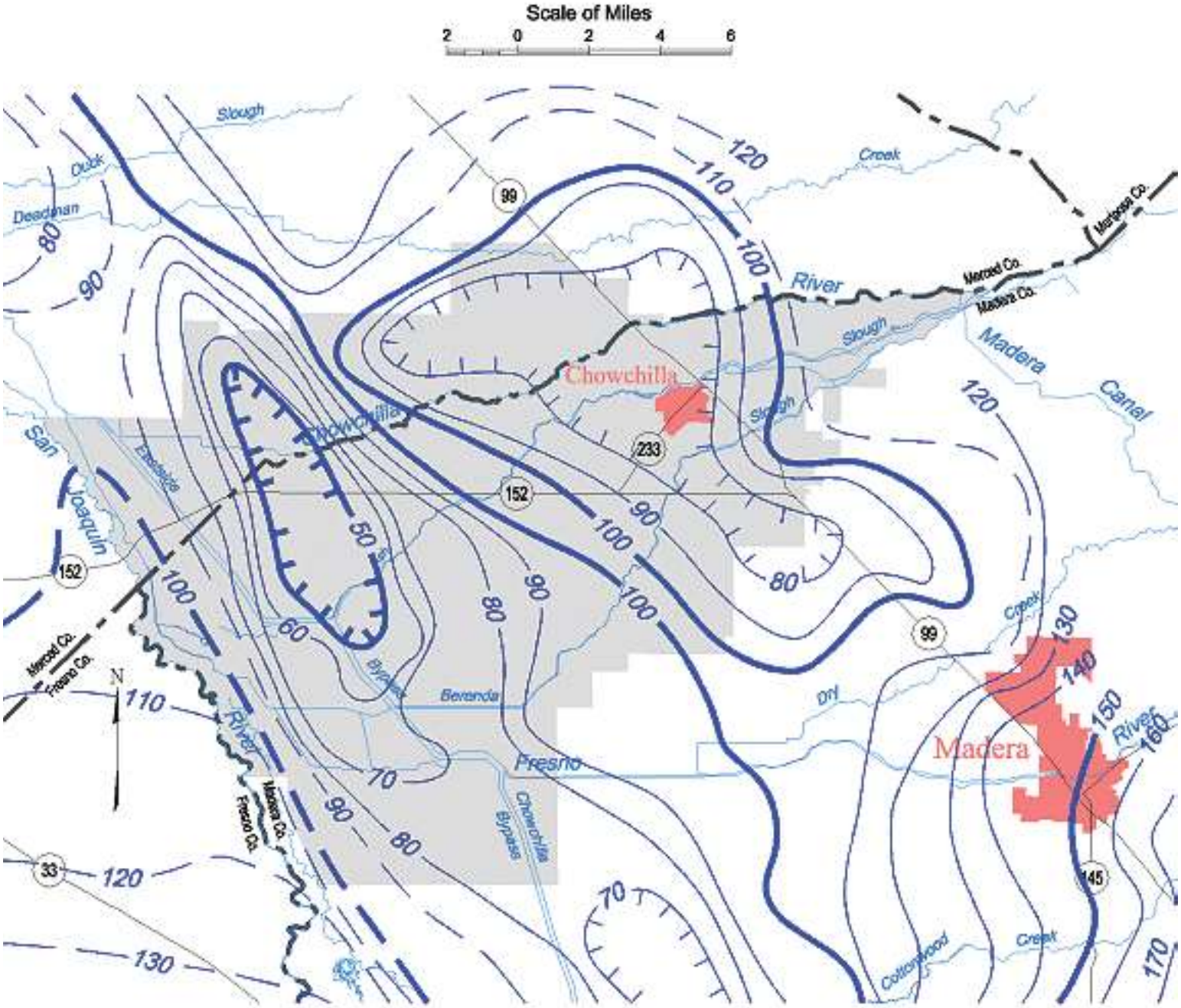
Spring 1991, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

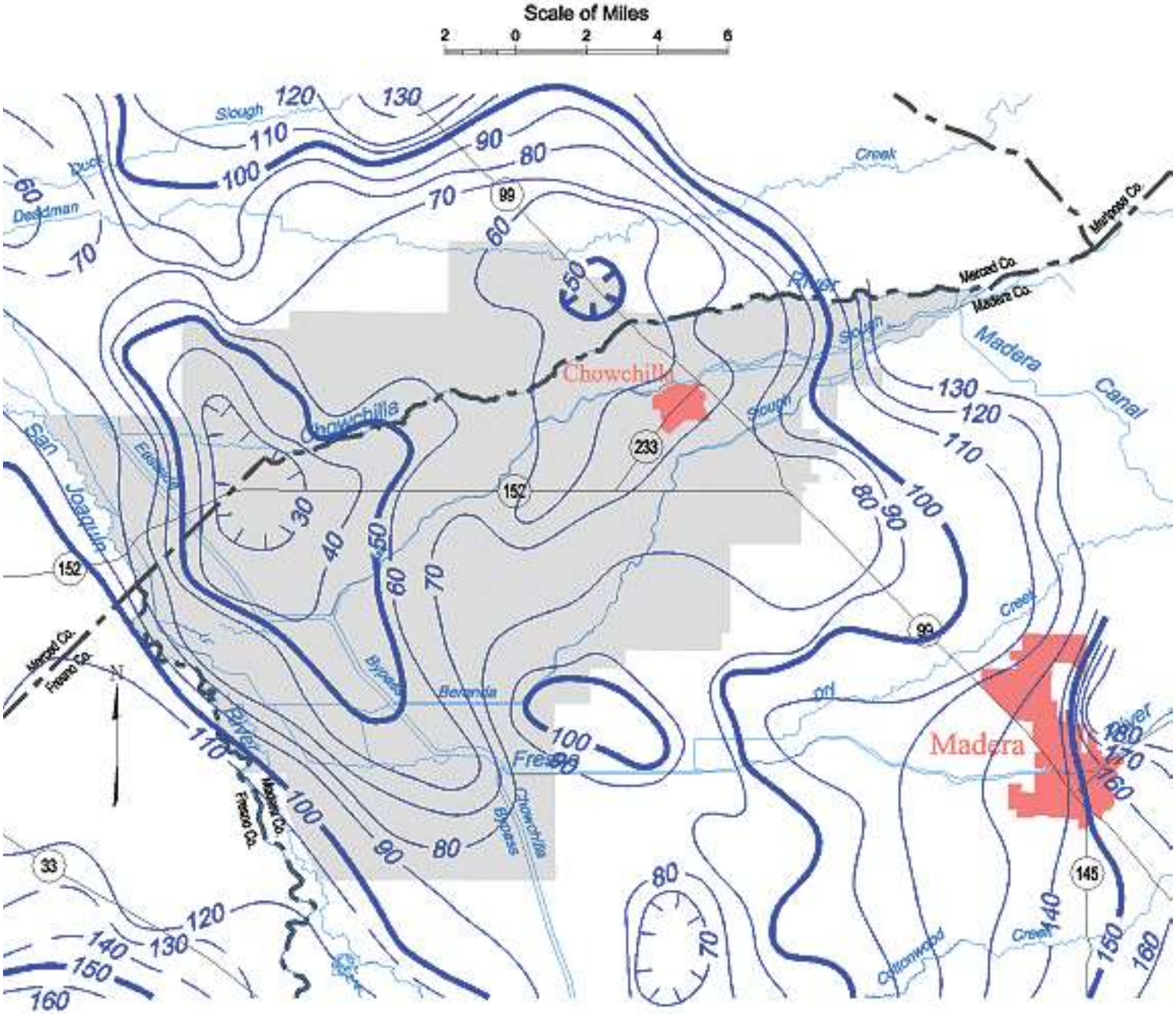
Spring 1992, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

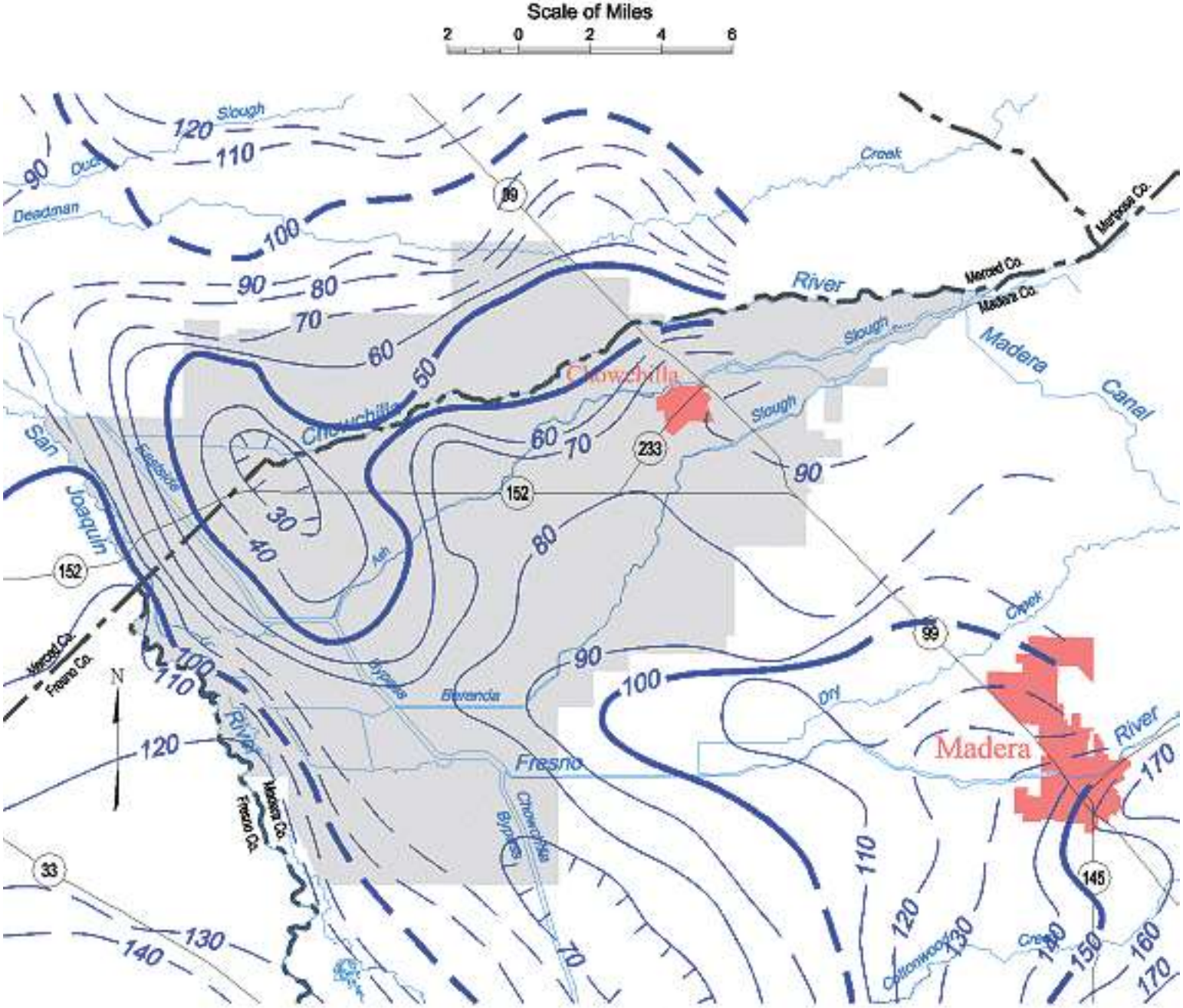
Spring 1993, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

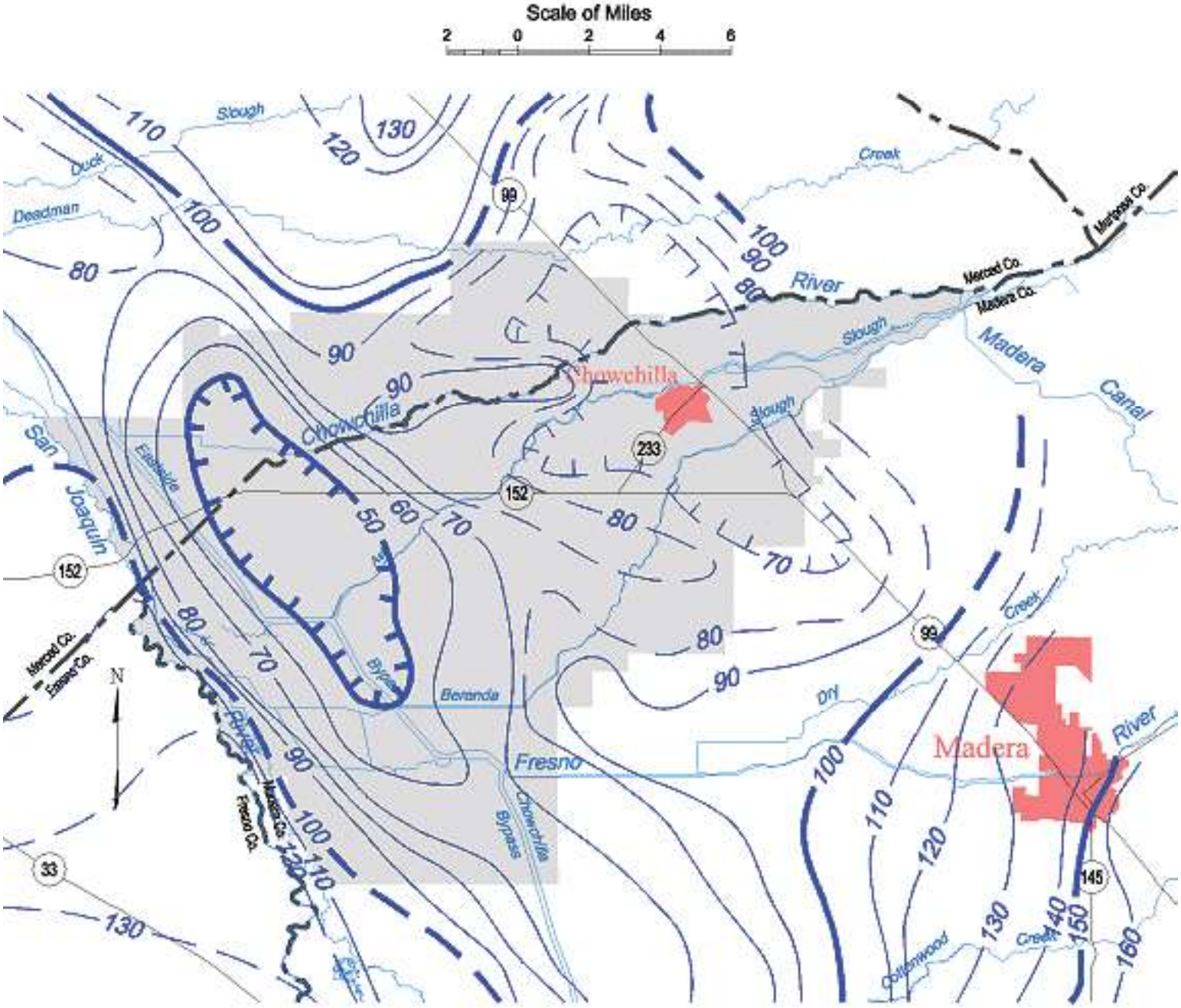
Spring 1994, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

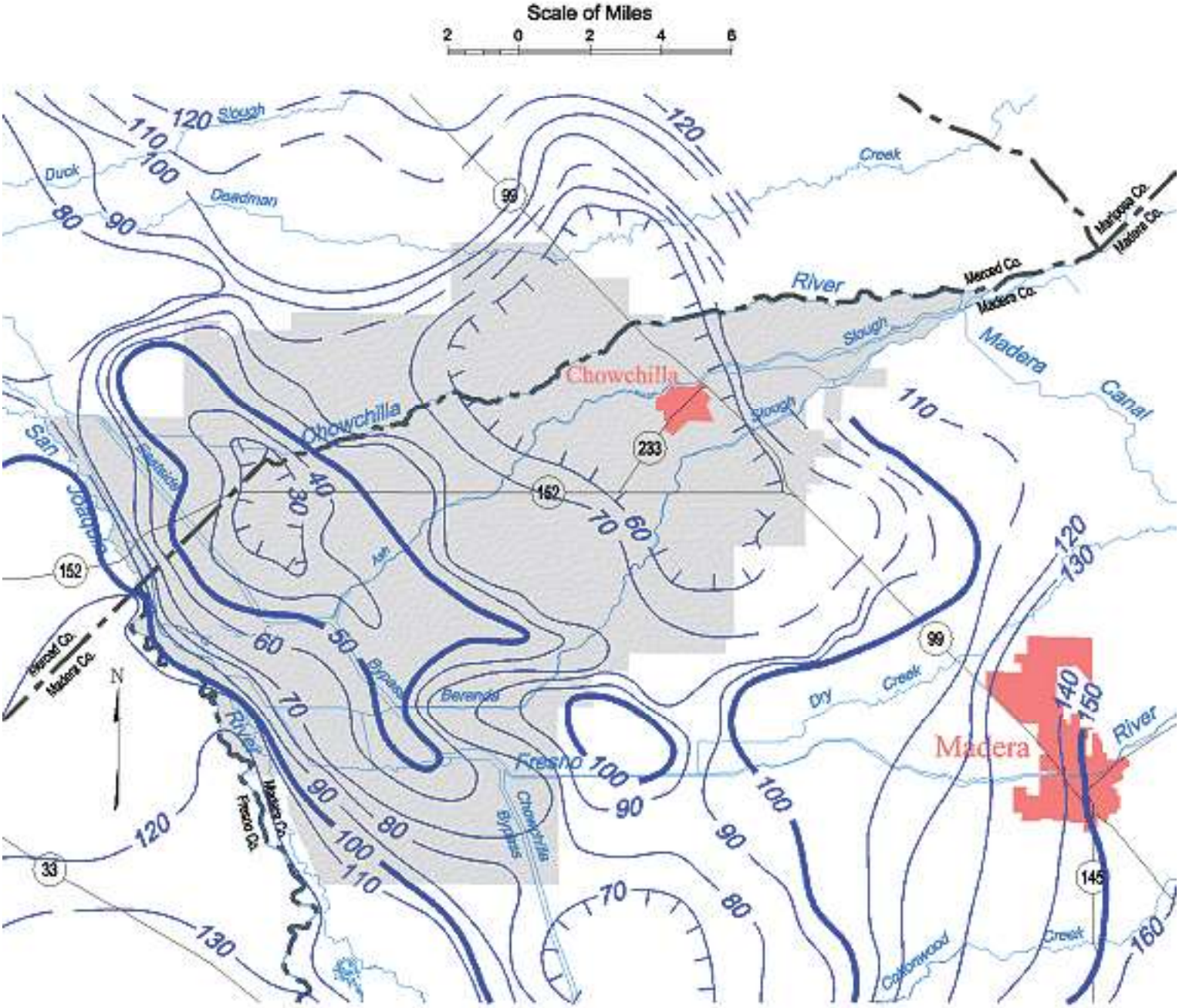
Spring 1995, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

Spring 1996, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



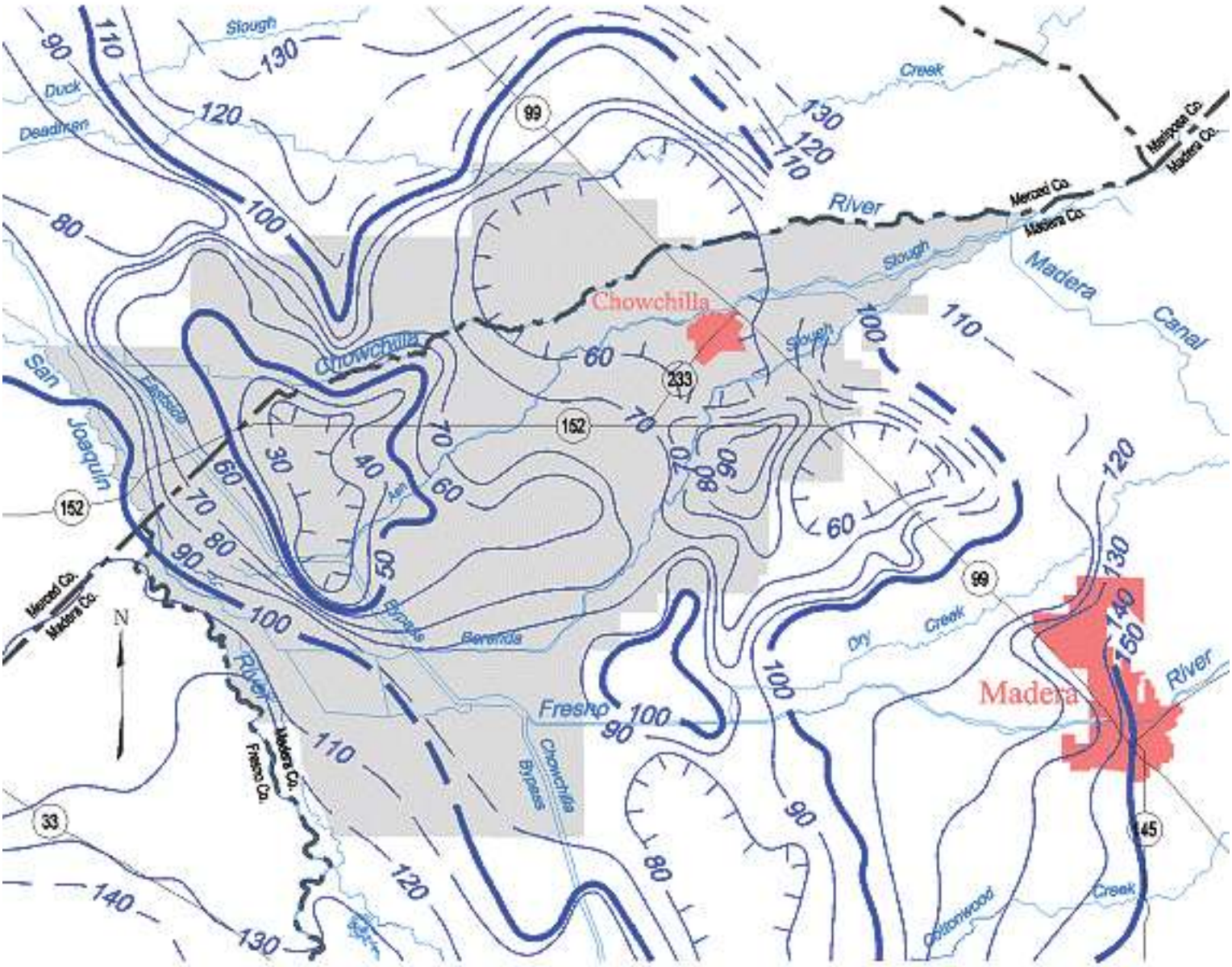
Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

Spring 1997, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer

Scale of Miles

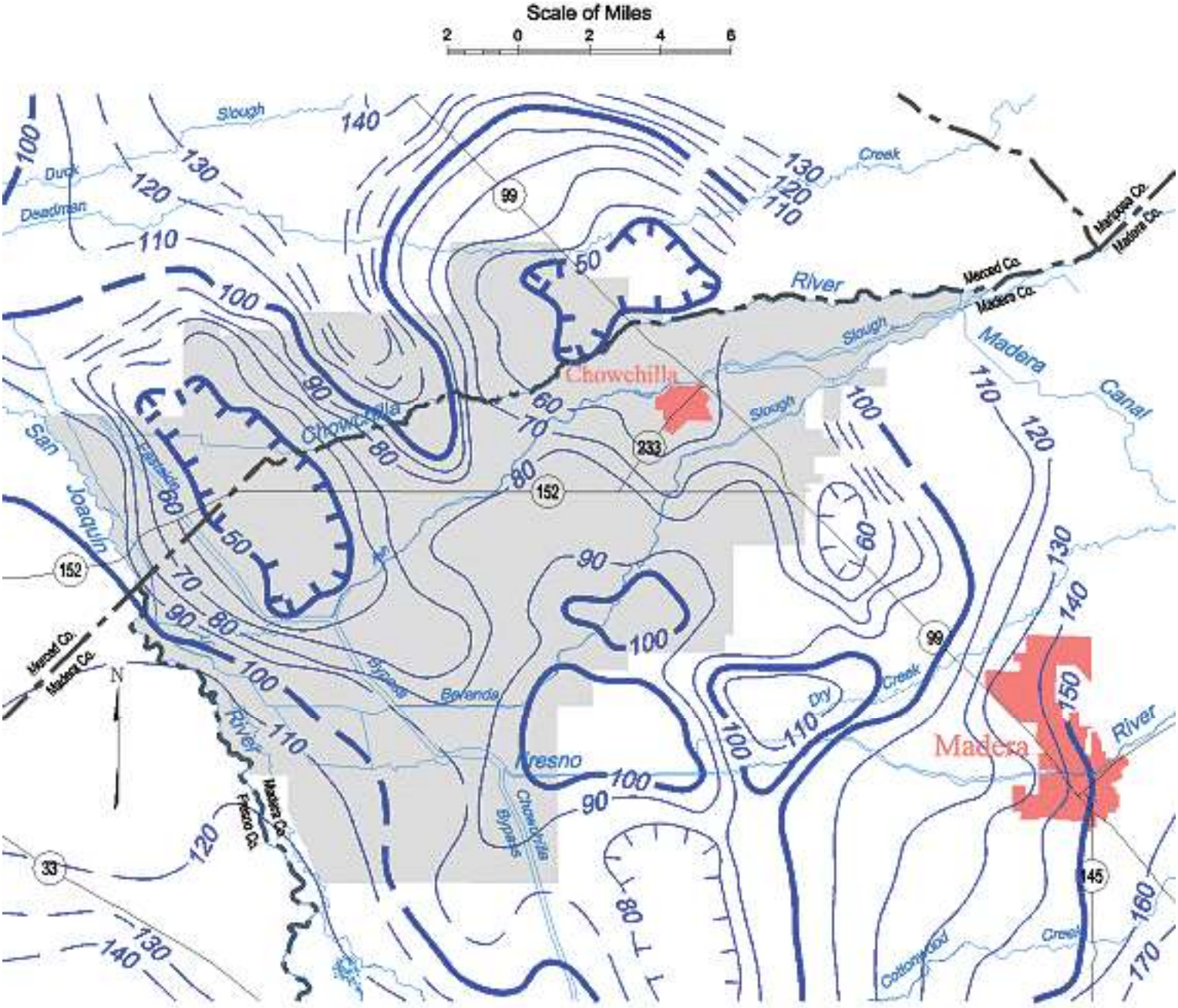
2 0 2 4 6



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

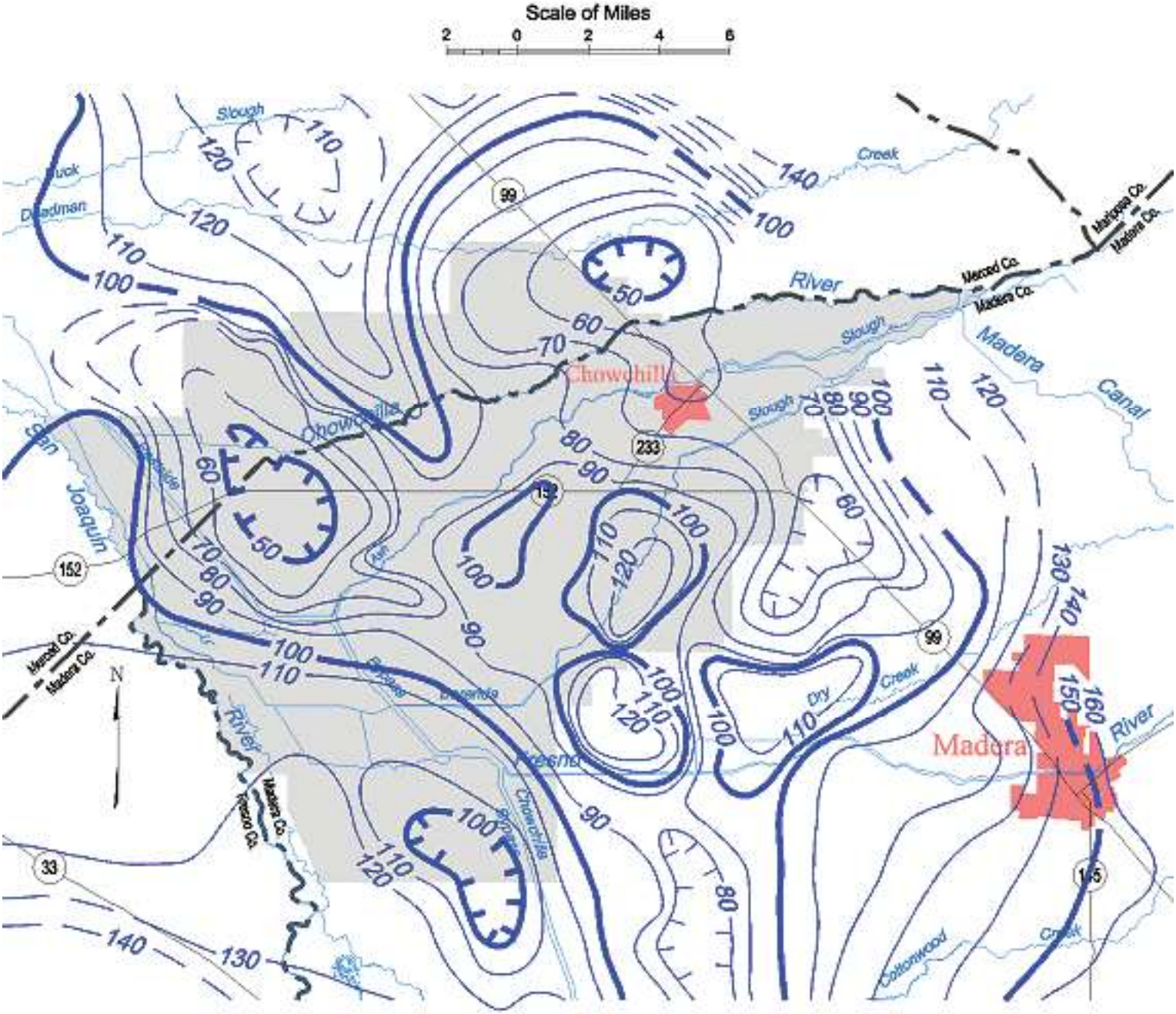
Spring 1998, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

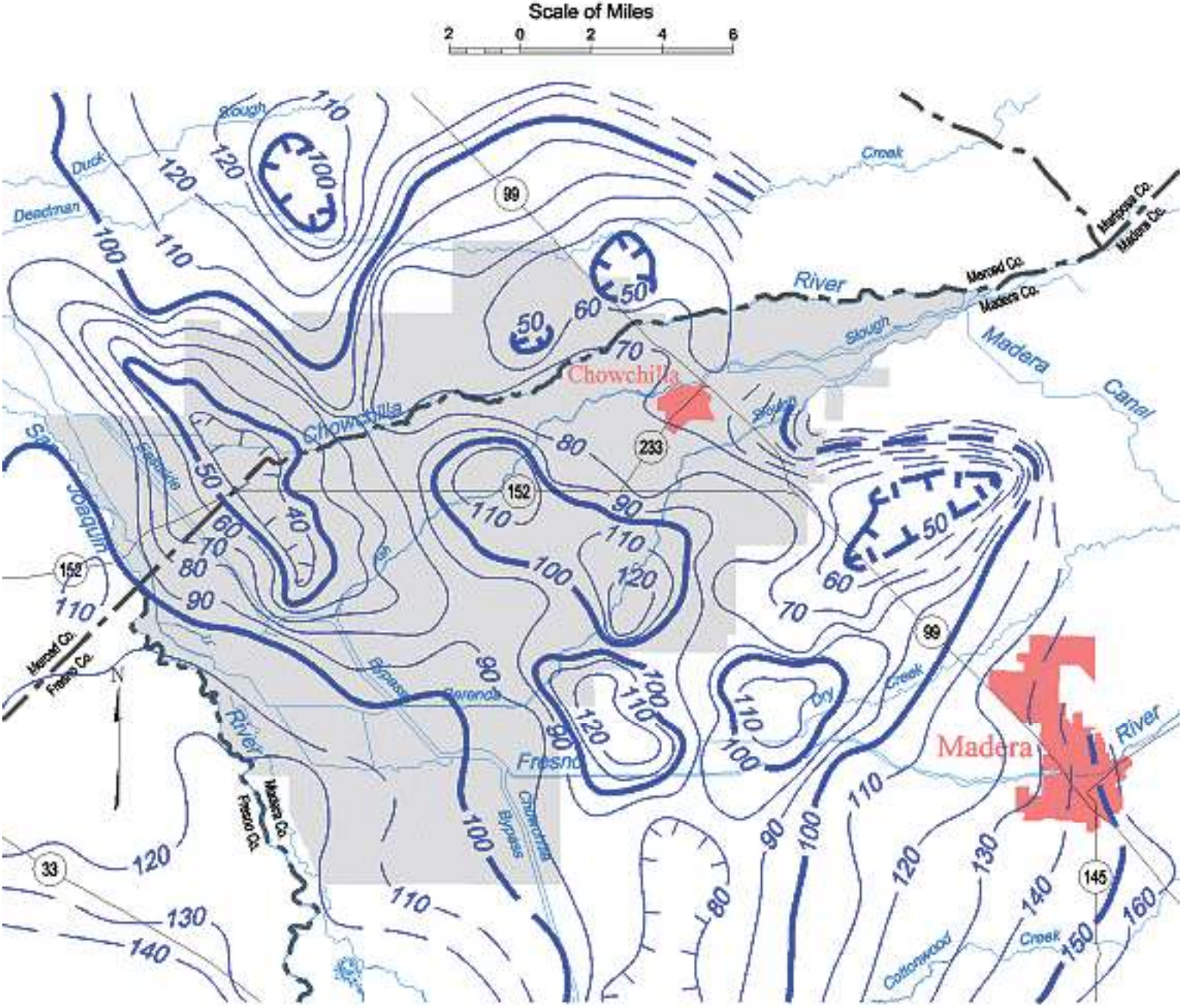
Spring 1999, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

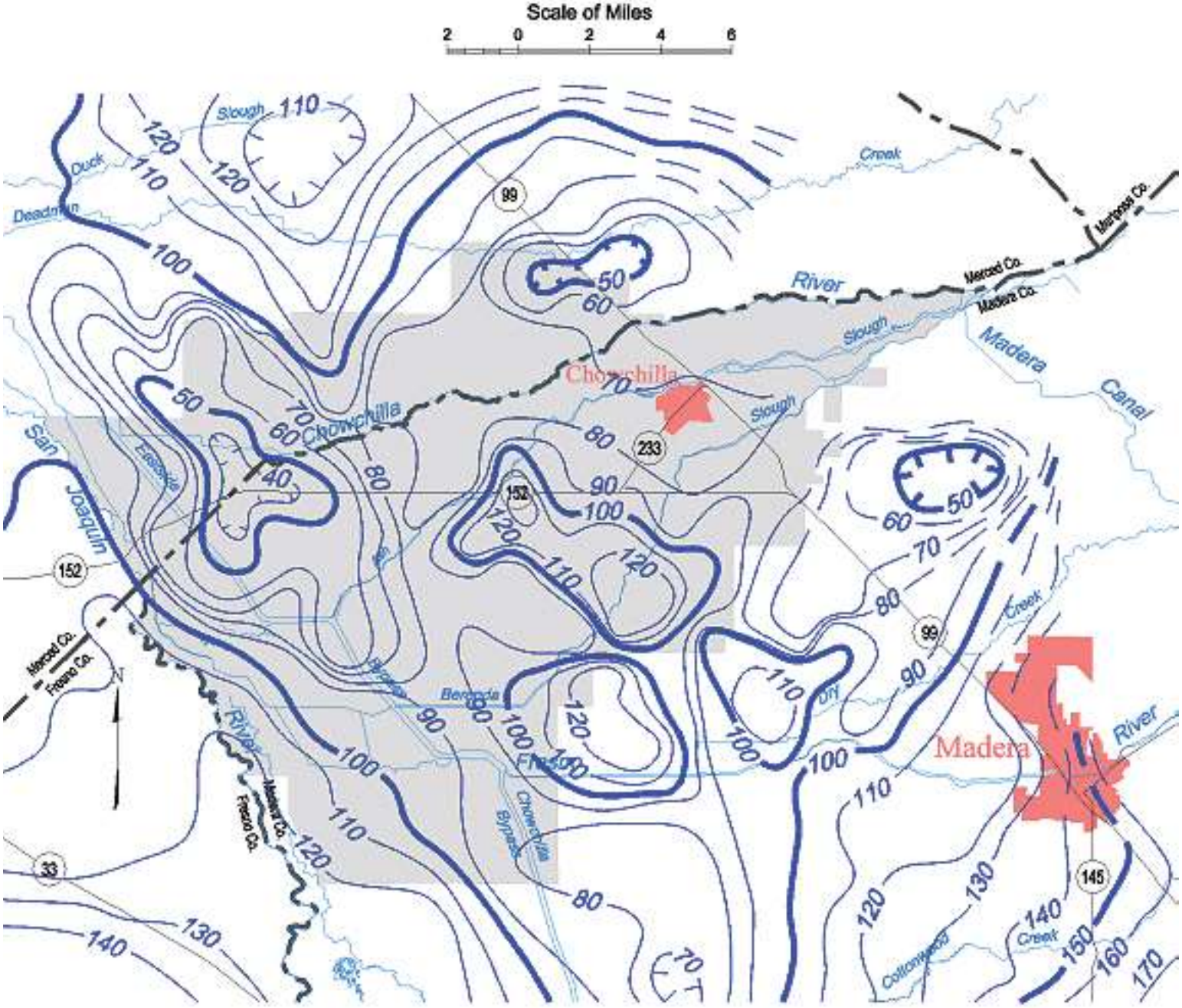
Spring 2000, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

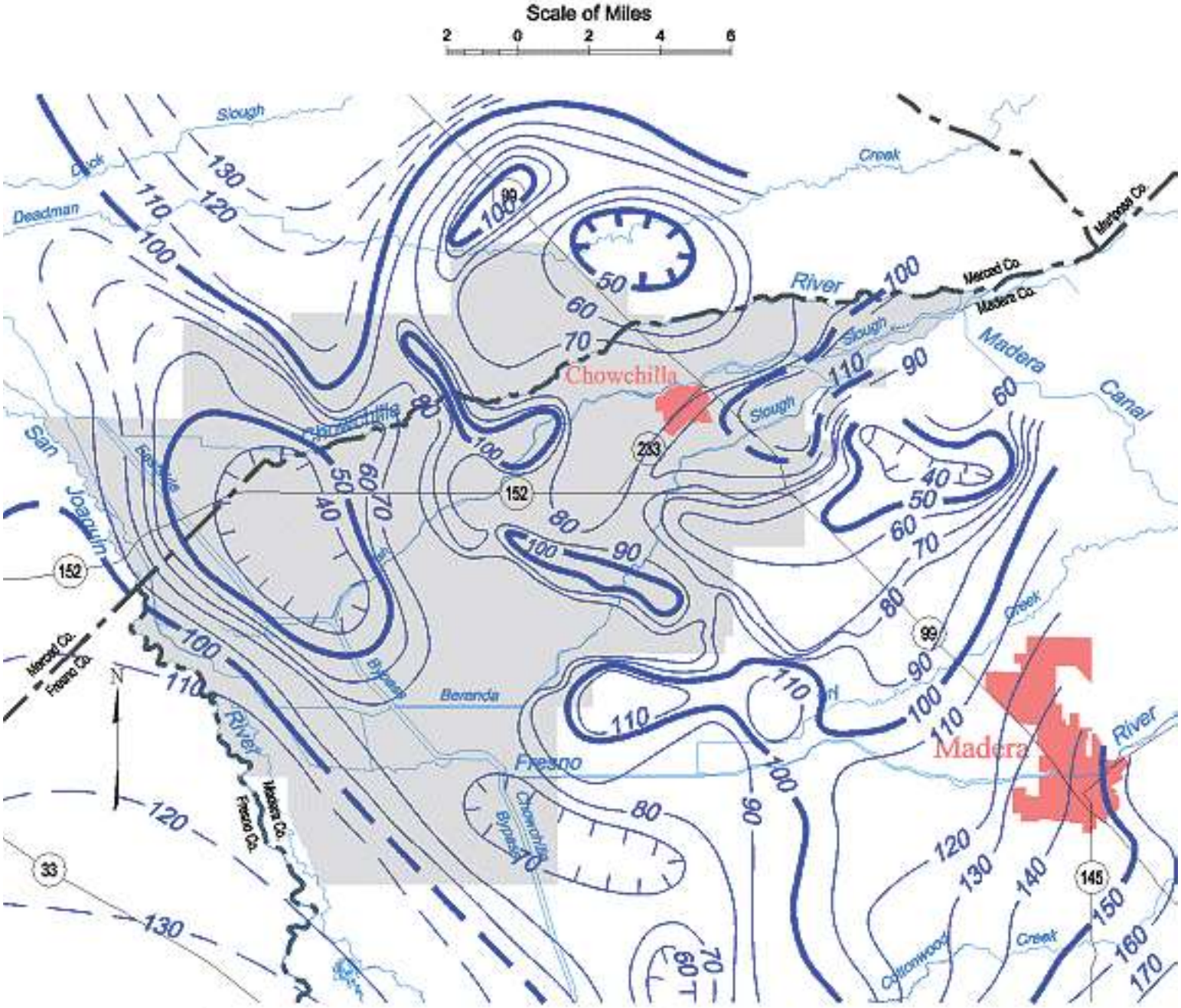
Spring 2001, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

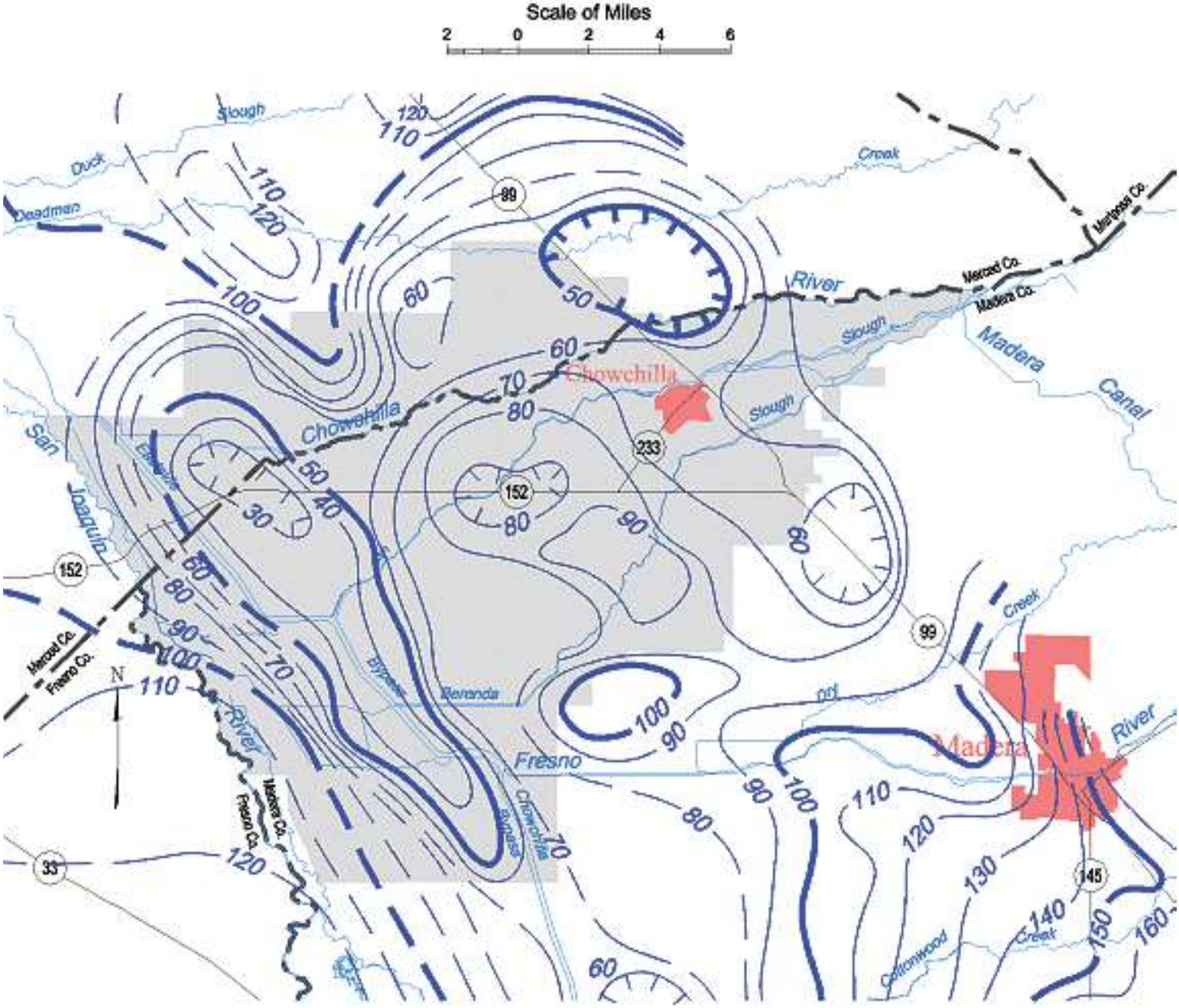
Spring 2002, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

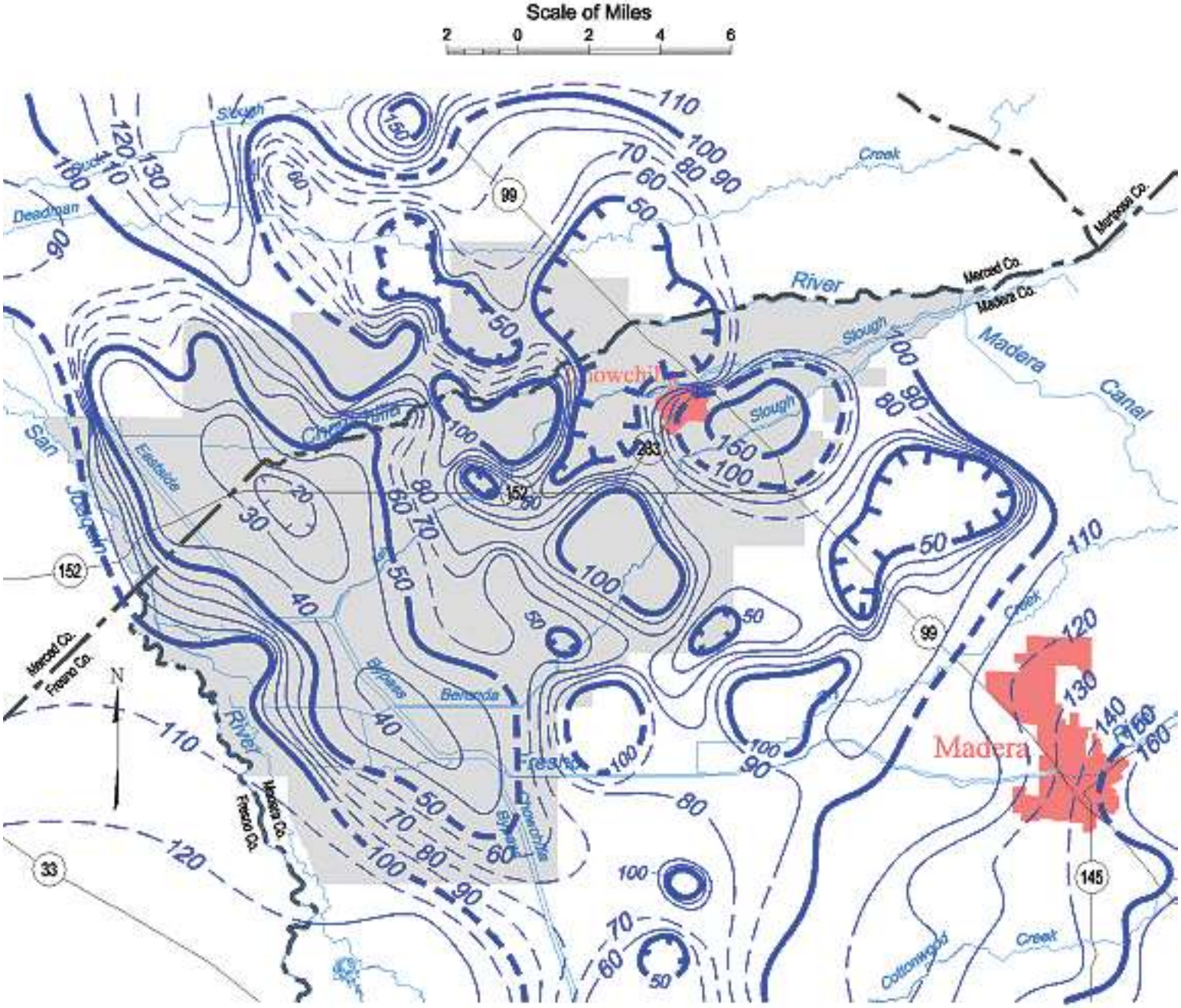
Spring 2003, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

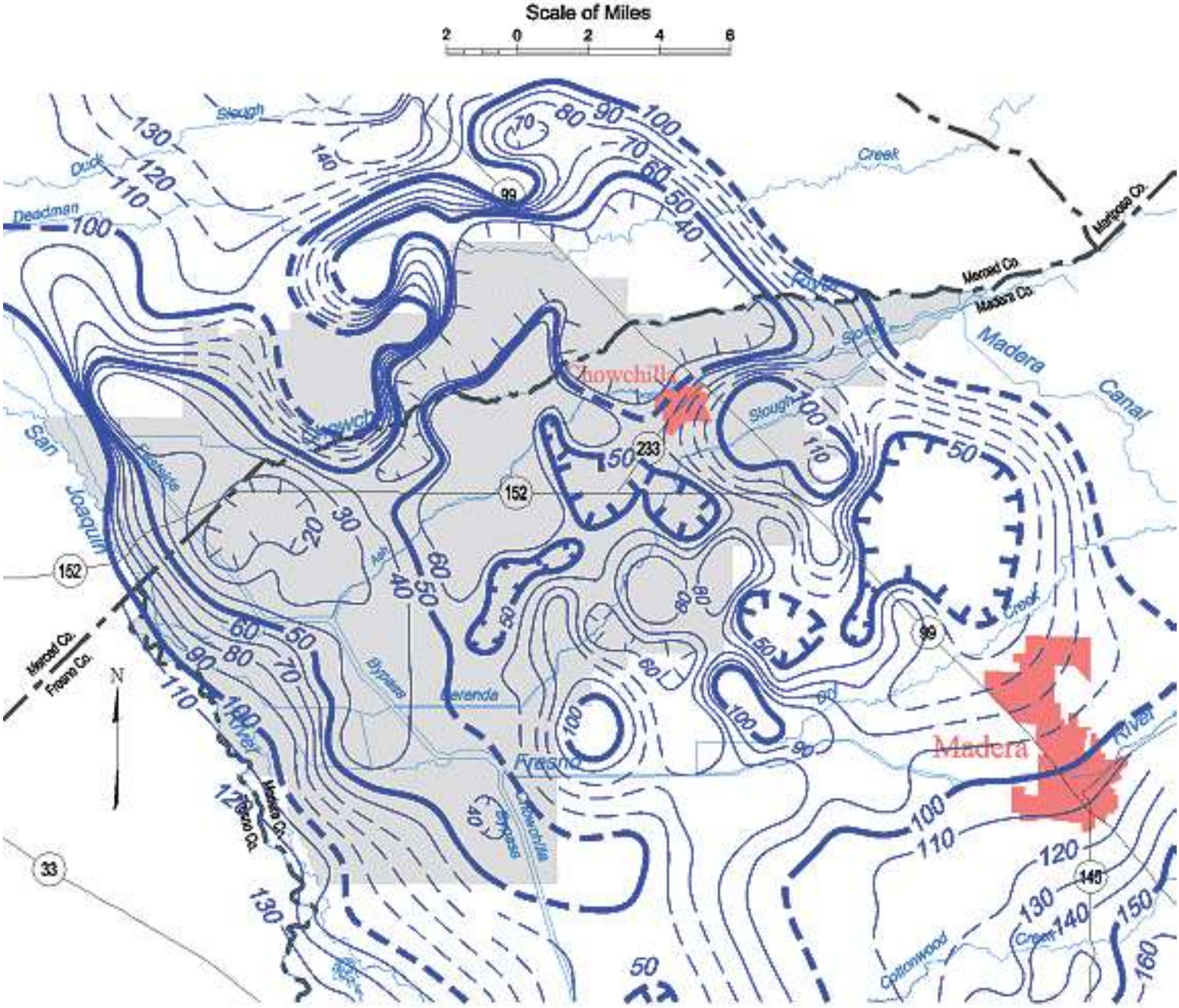
Spring 2004, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 and 50 feet.

Chowchilla Groundwater Basin

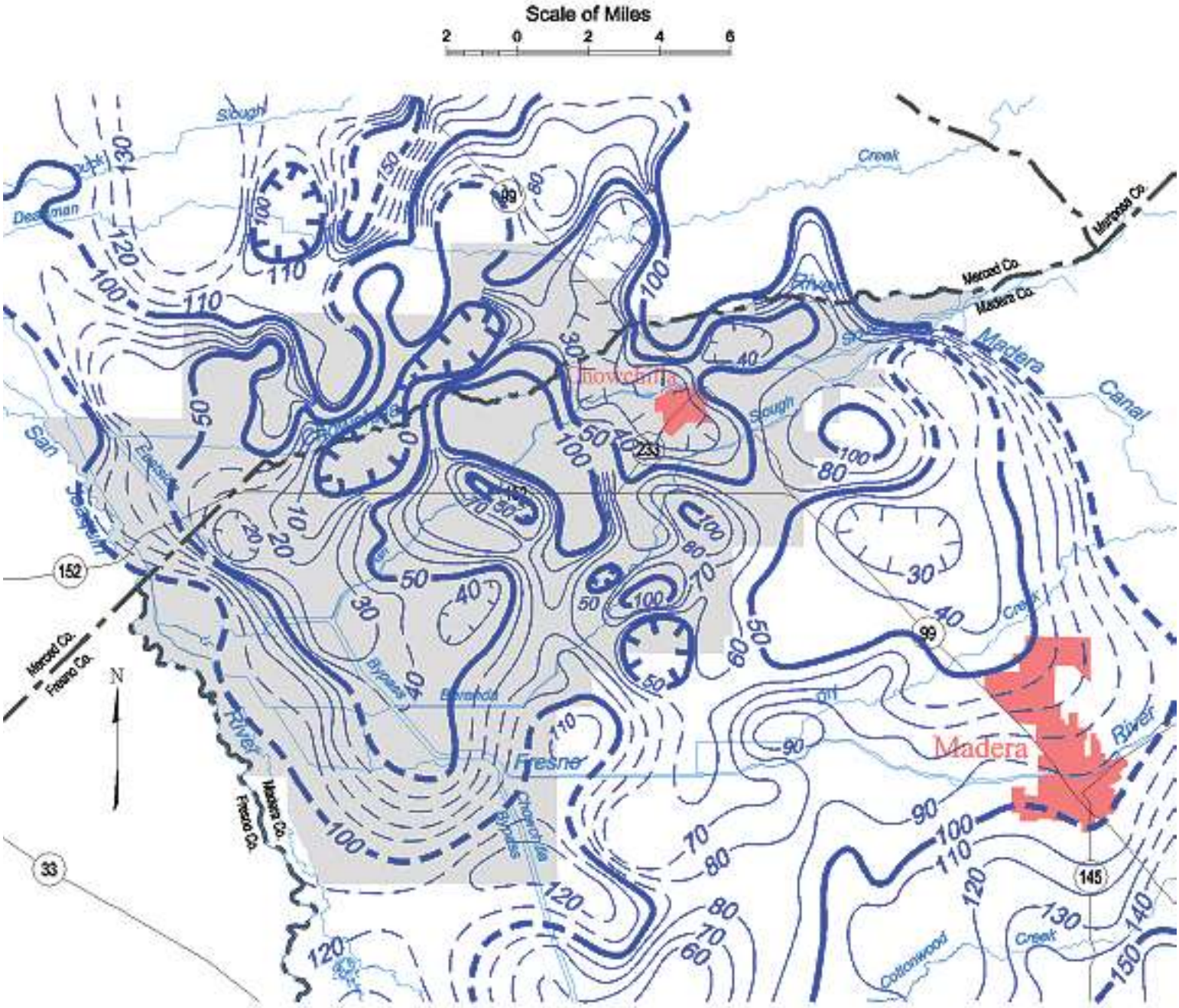
Spring 2005, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

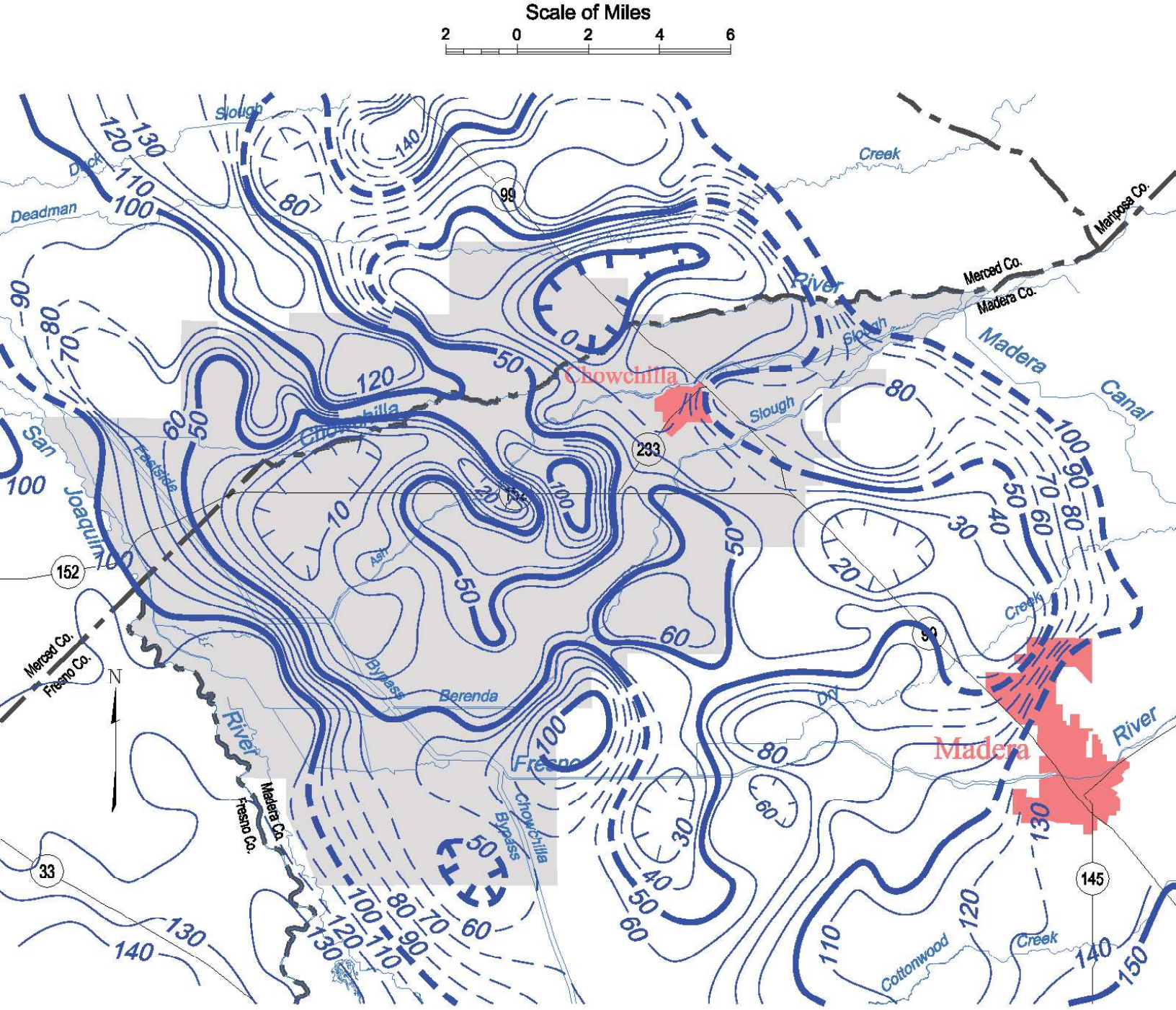
Spring 2006, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 and 20 feet.

Chowchilla Groundwater Basin

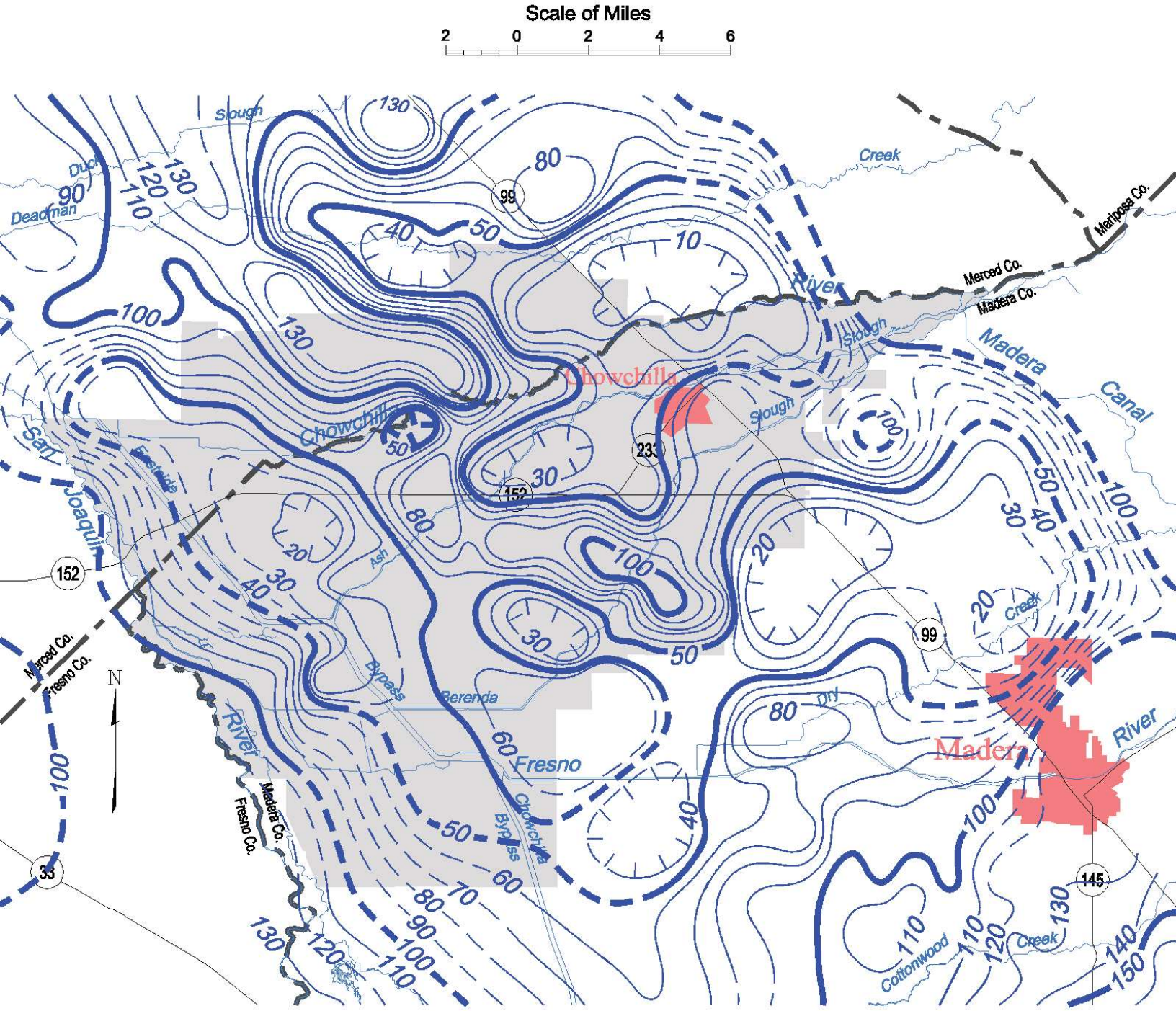
Spring 2007, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

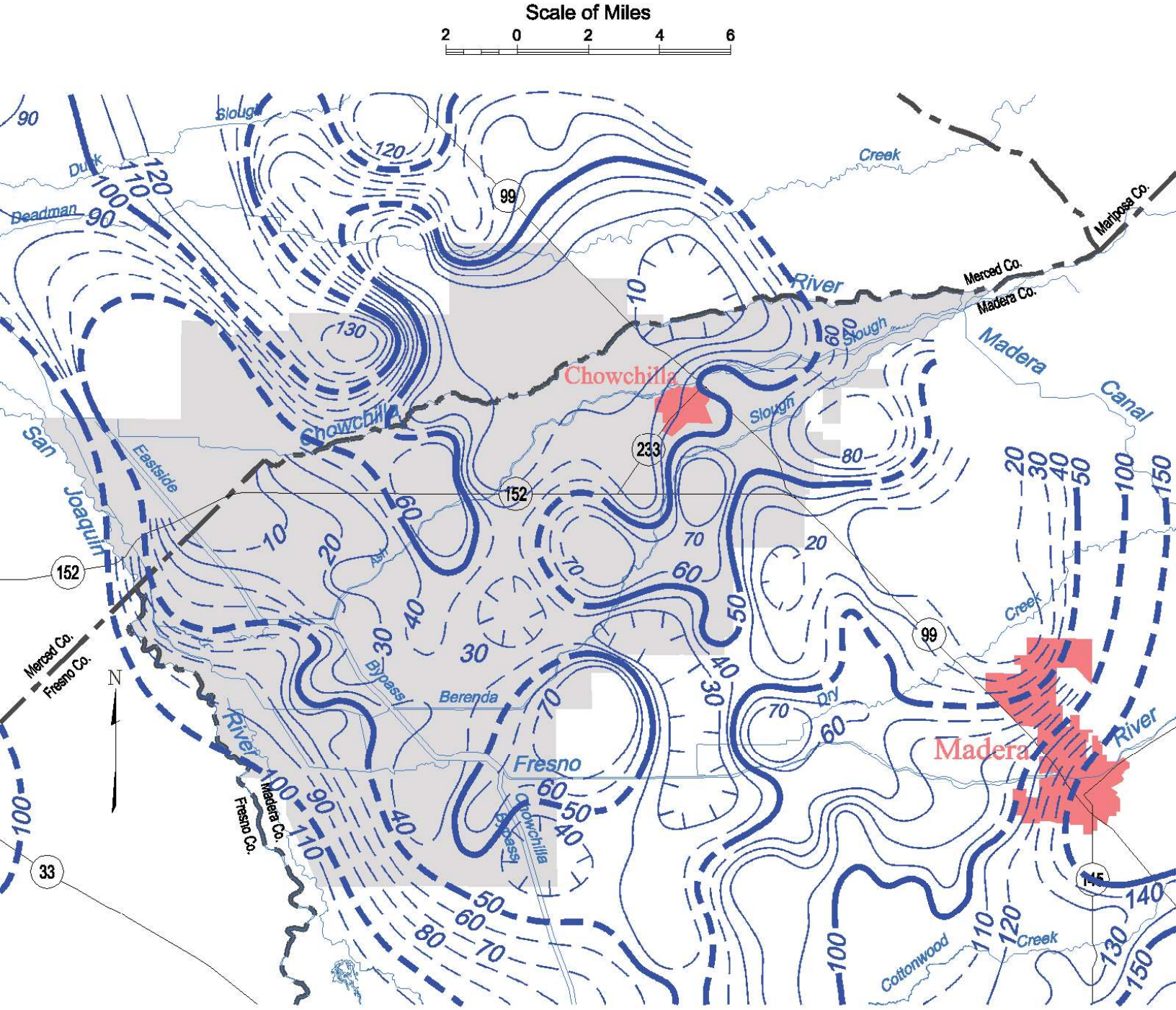
Spring 2008, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

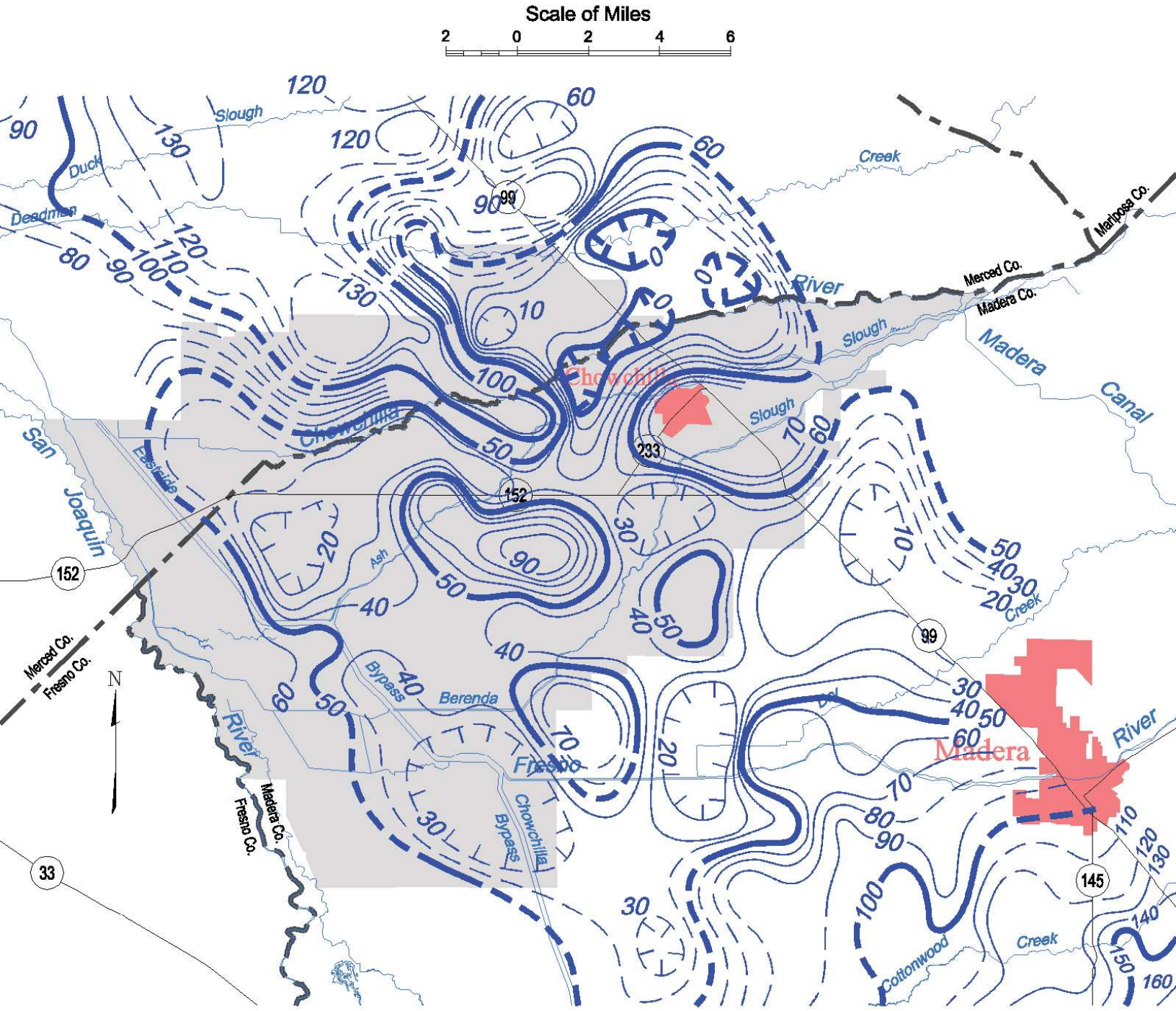
Spring 2009, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin

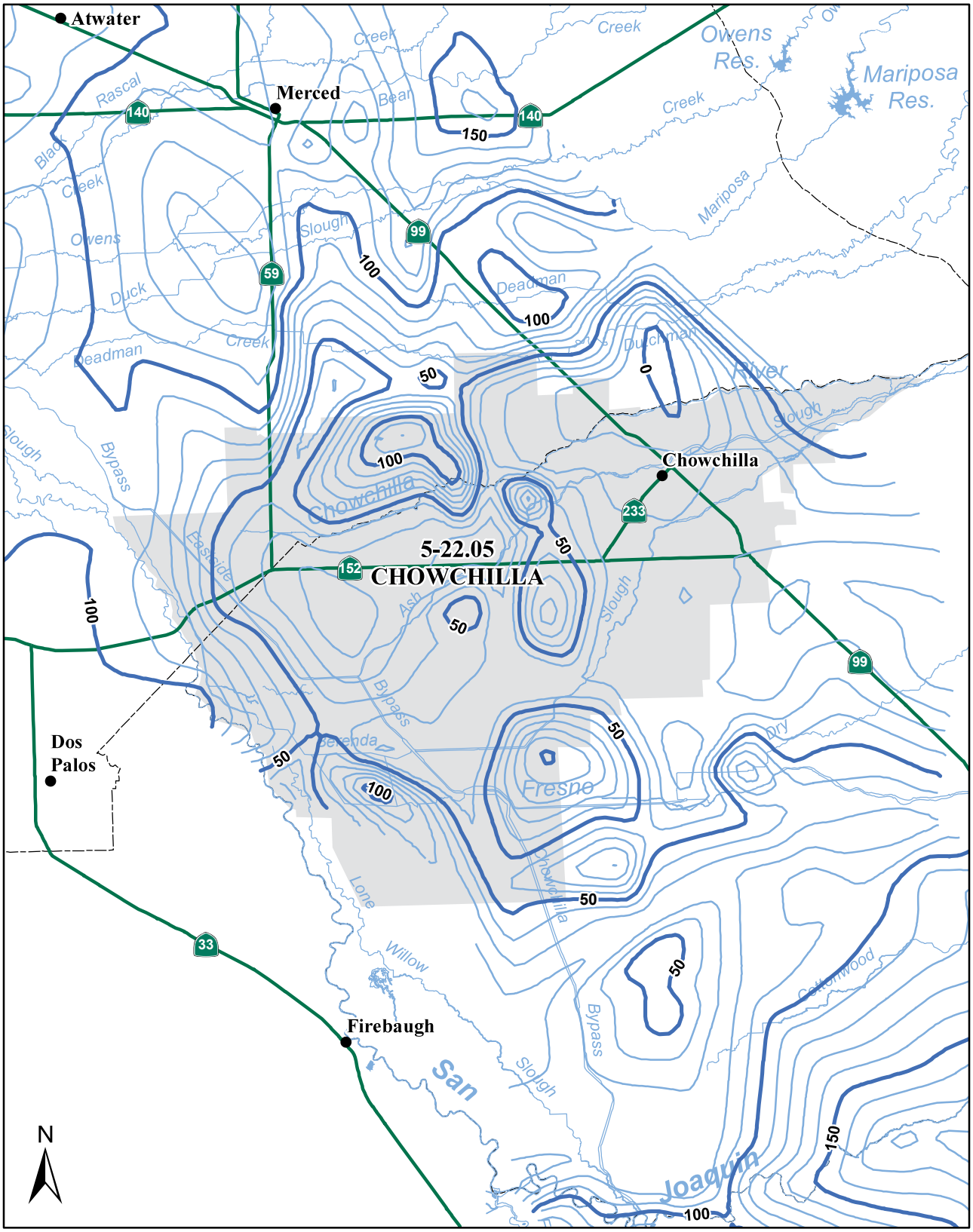
Spring 2010, Lines of Equal Elevation of Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 feet.

Chowchilla Groundwater Basin 5-22.05

Groundwater Elevation Contours - Spring 2011 San Joaquin River Hydrologic Region

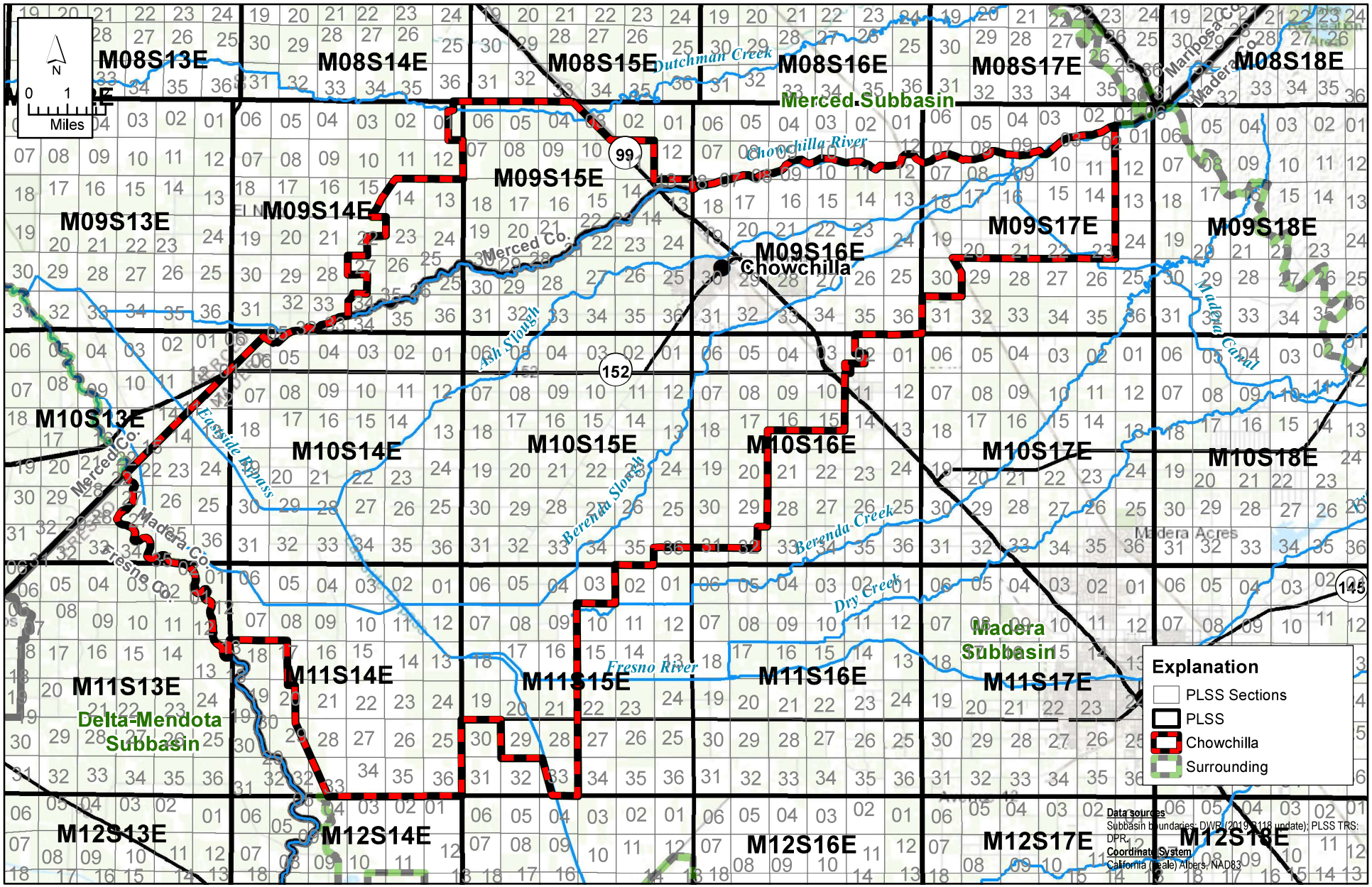


Lines of equal elevation of groundwater in feet above mean sea level.
Groundwater contours are a generalized representation of static water levels interpreted from wells measured in Spring 2011.
Water levels are interpreted to represent unconfined conditions.

0 5 10 Miles

South Central Region Office

Groundwater Elevation Hydrographs



X:\2018\18-017 Chowchilla GSP Development\GIS\Map files\Report Figures\Appendix 2.E Chowchilla Subbasin Well Hydrograph Locs PLSS.mxd

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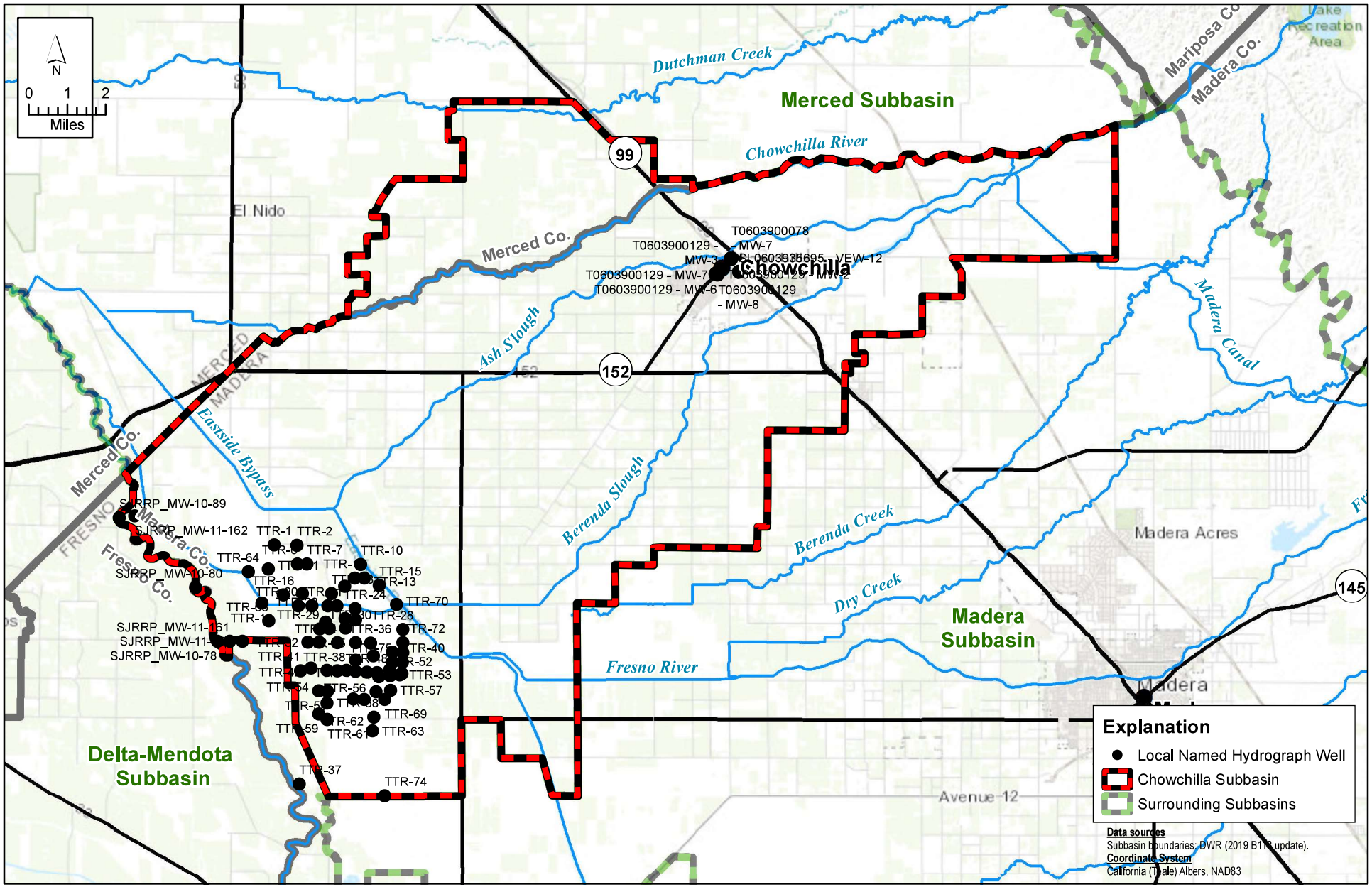
APPENDIX 2.E

Groundwater Elevation Hydrograph Location Map: Using PLSS for State Well Numbers



X:\2018\18-017 Chowchilla GSP Development\GIS\Map files\Report Figures\Appendix 2.E Chowchilla Subbasin Well Hydrograph Locs Entity Wells.mxd

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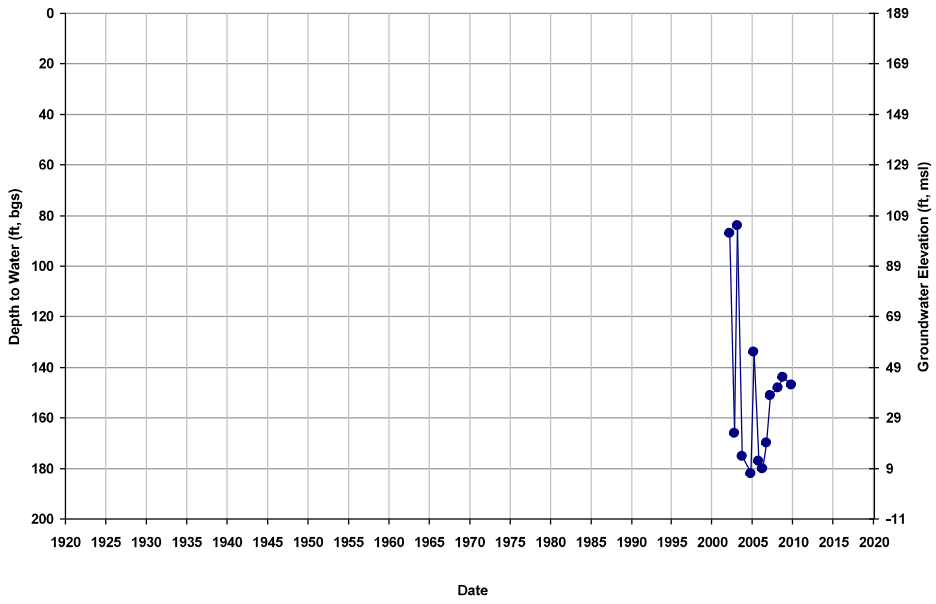
APPENDIX 2.E
Groundwater Elevation Hydrograph Location Map: Local Named Well

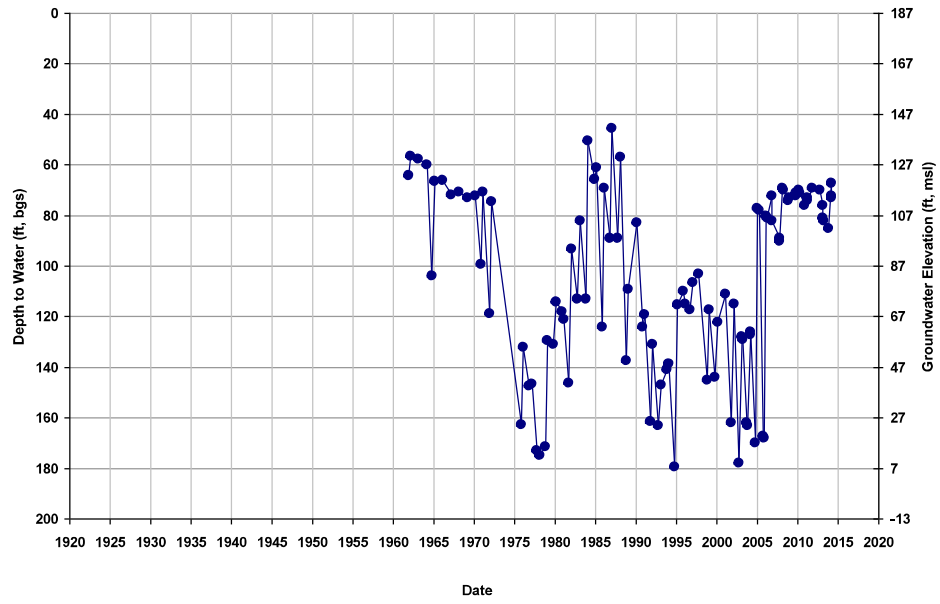
Well ID: 09S14E01A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 189
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



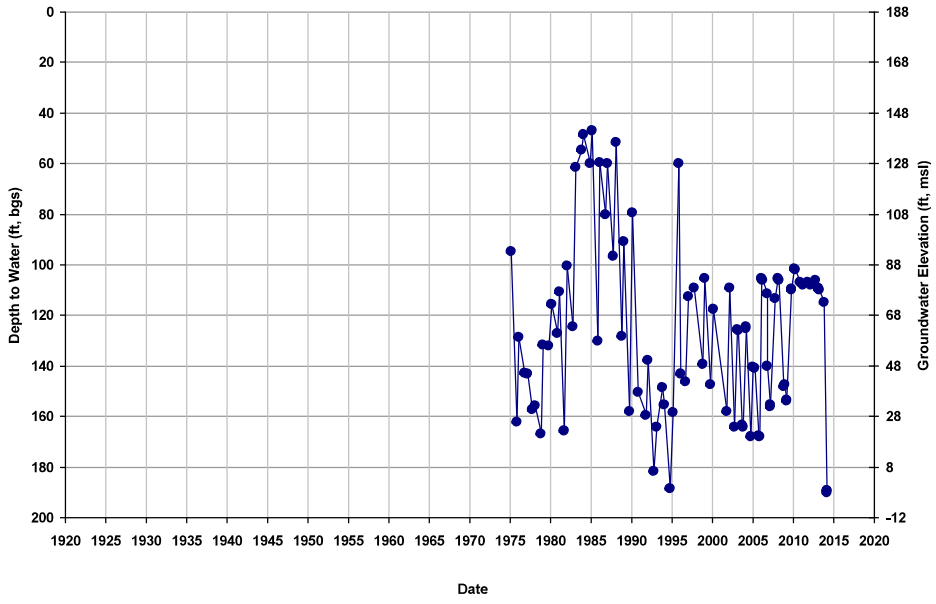
Well ID: 09S14E13J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 187
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



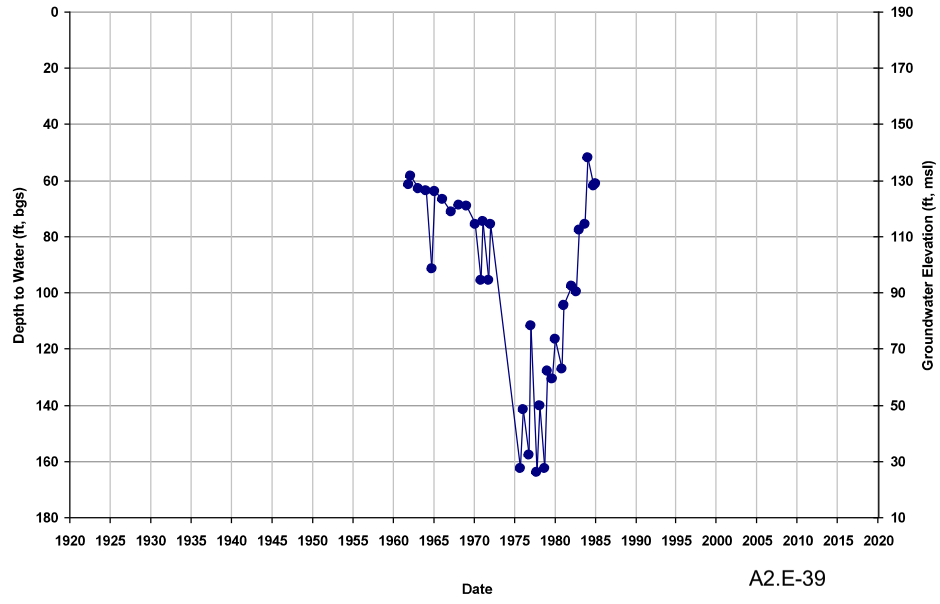
Well ID: 09S14E13K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 188
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



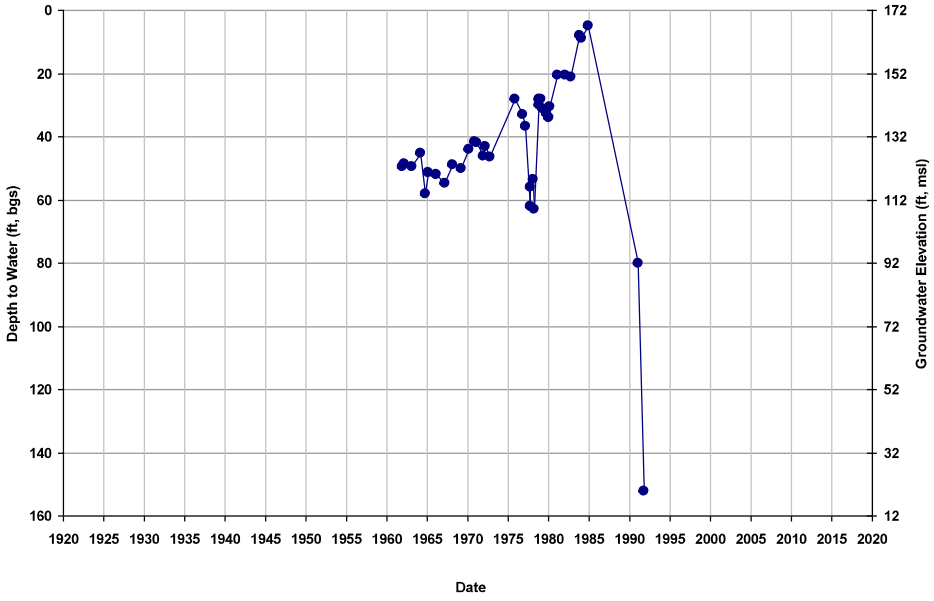
Well ID: 09S14E13R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 190
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



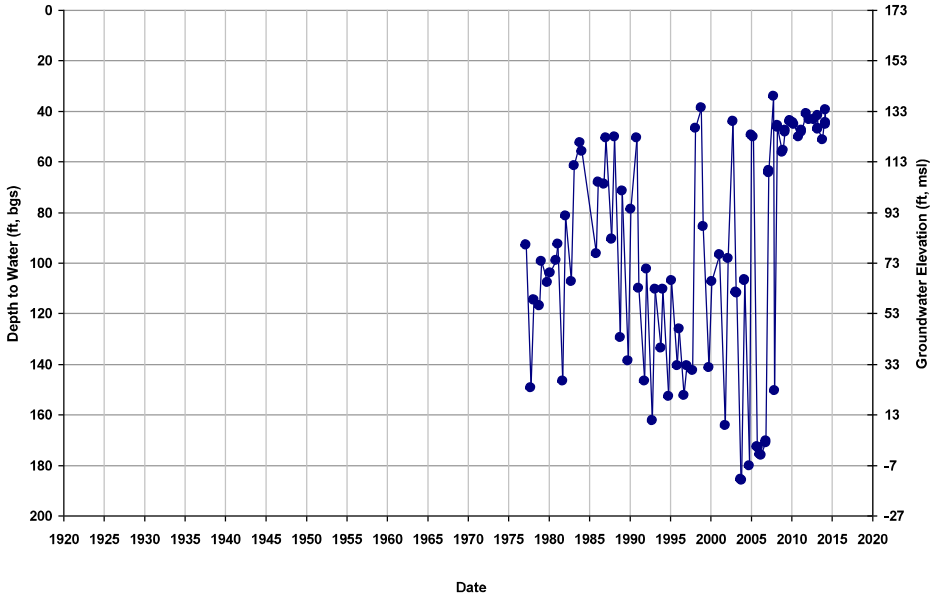
Well ID: 09S14E14E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 172
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



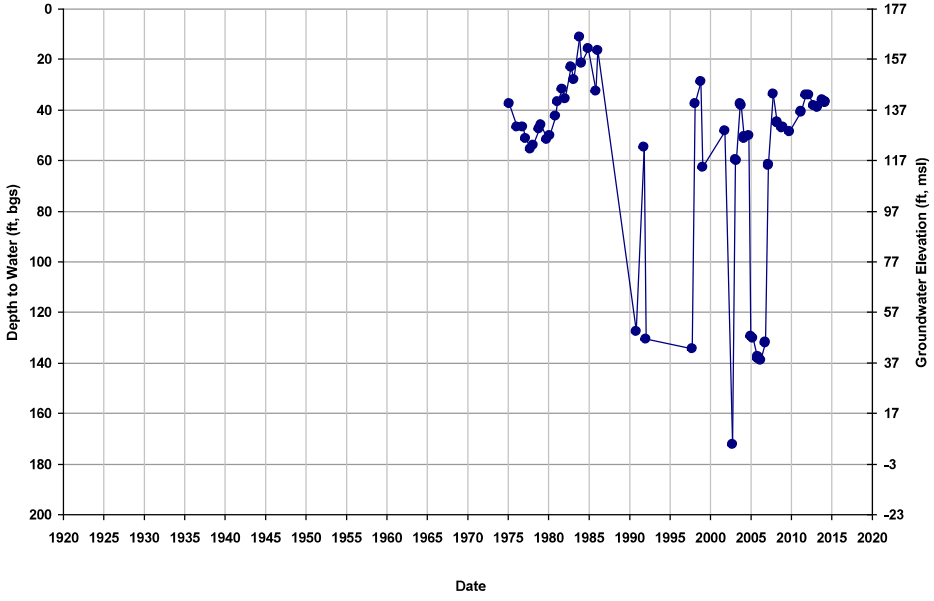
Well ID: 09S14E14K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 173
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



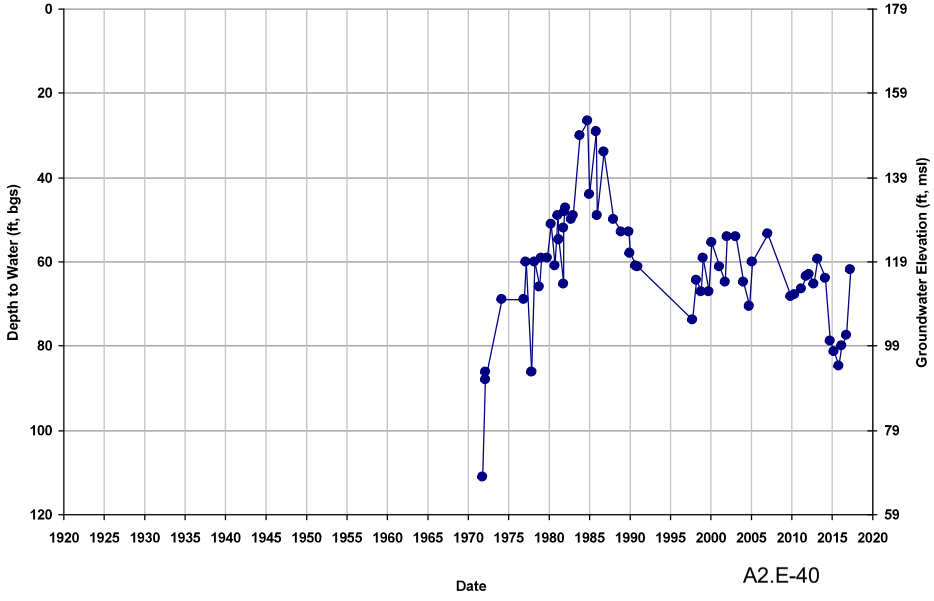
Well ID: 09S14E14L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 177
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



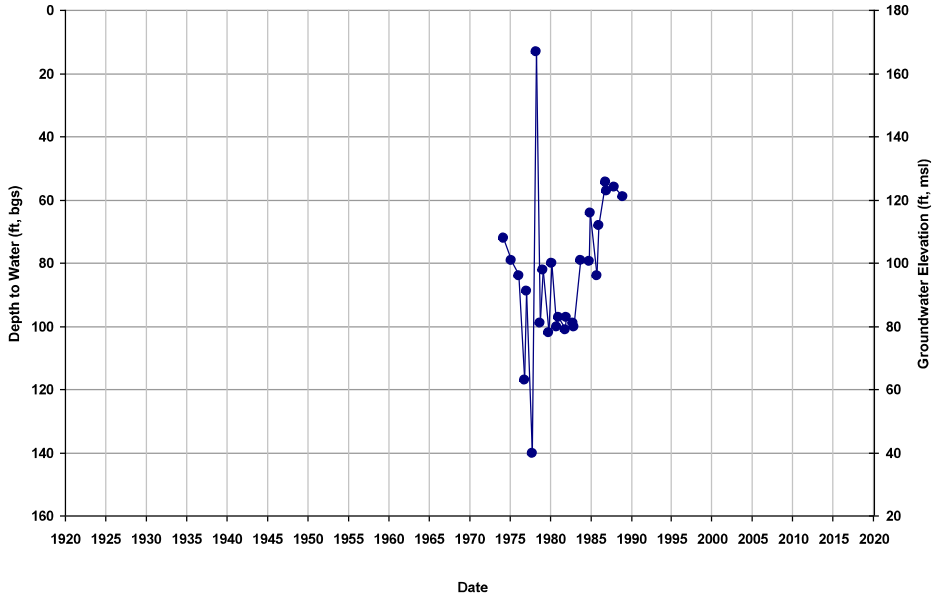
Well ID: 09S14E14R001M
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 179
Total Depth (ft): 560
Perf Top (ft): NA
Perf Bottom (ft): NA



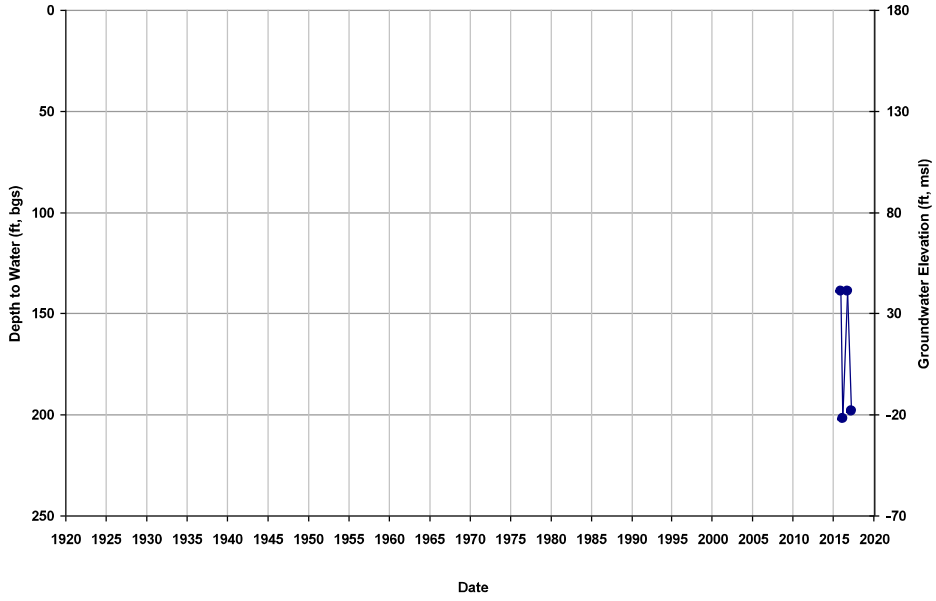
Well ID: 09S14E23A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 180
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



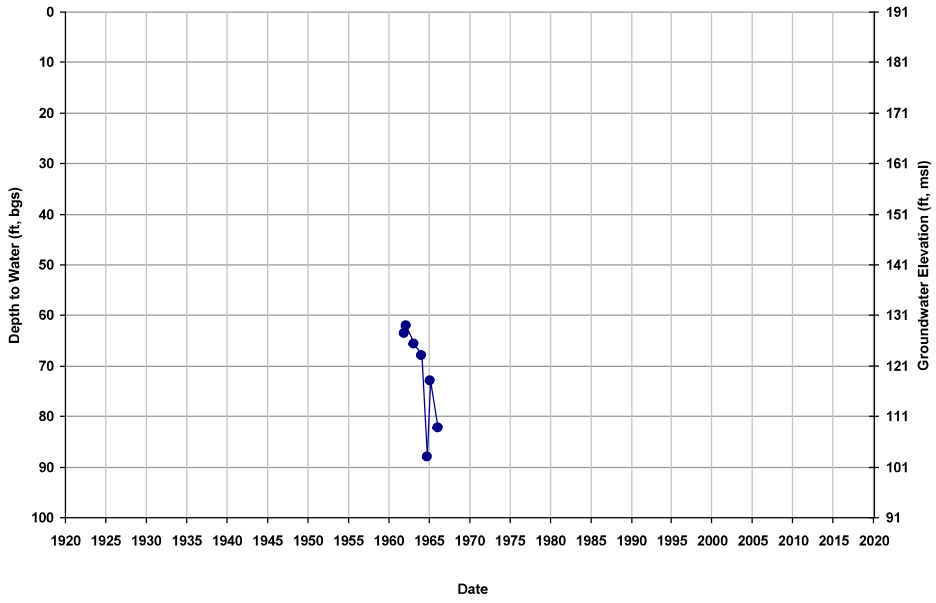
Well ID: 09S14E24H
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 180
Total Depth (ft): 900
Perf Top (ft): 324
Perf Bottom (ft): 828



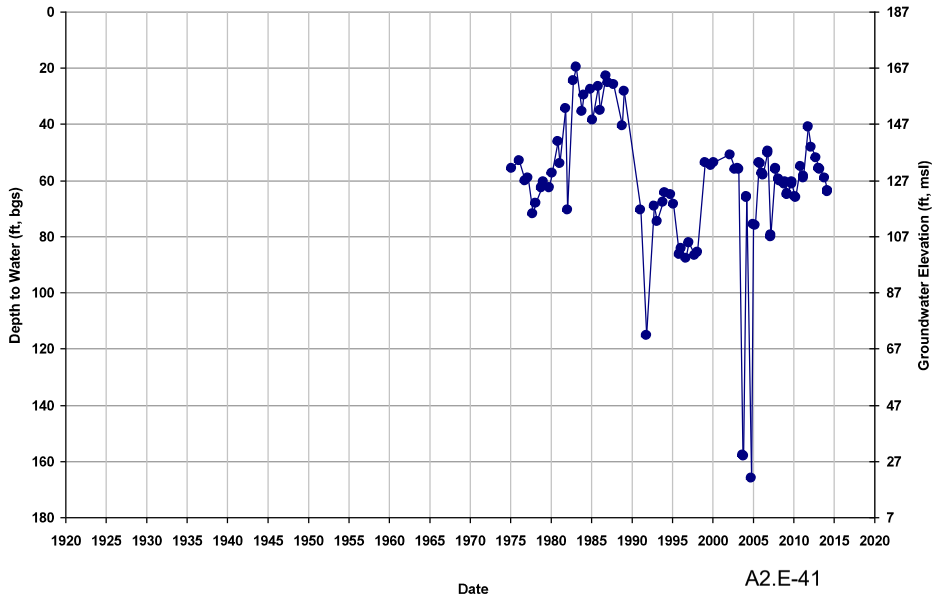
Well ID: 09S14E24R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 191
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



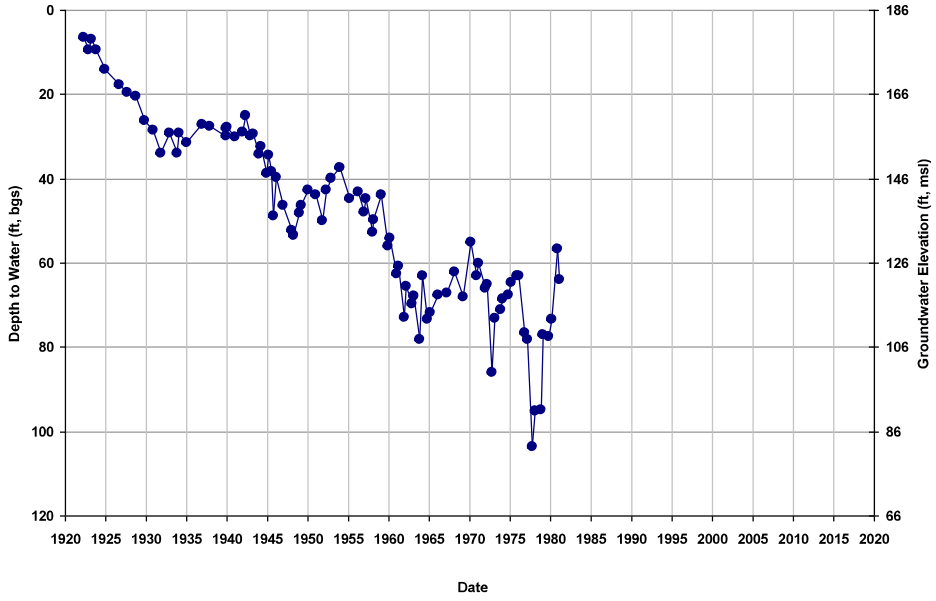
Well ID: 09S14E25A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 187
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



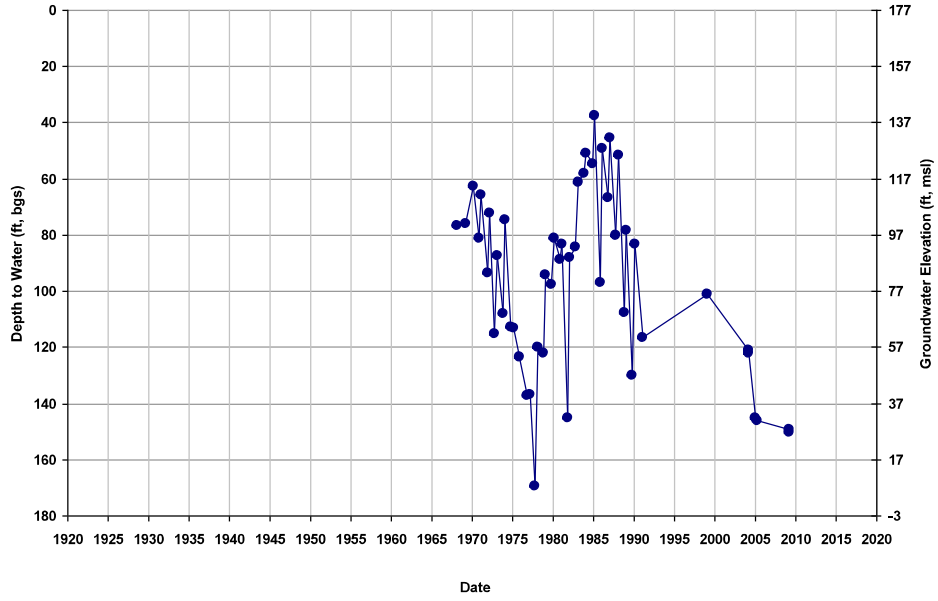
Well ID: 09S14E25R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 186
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



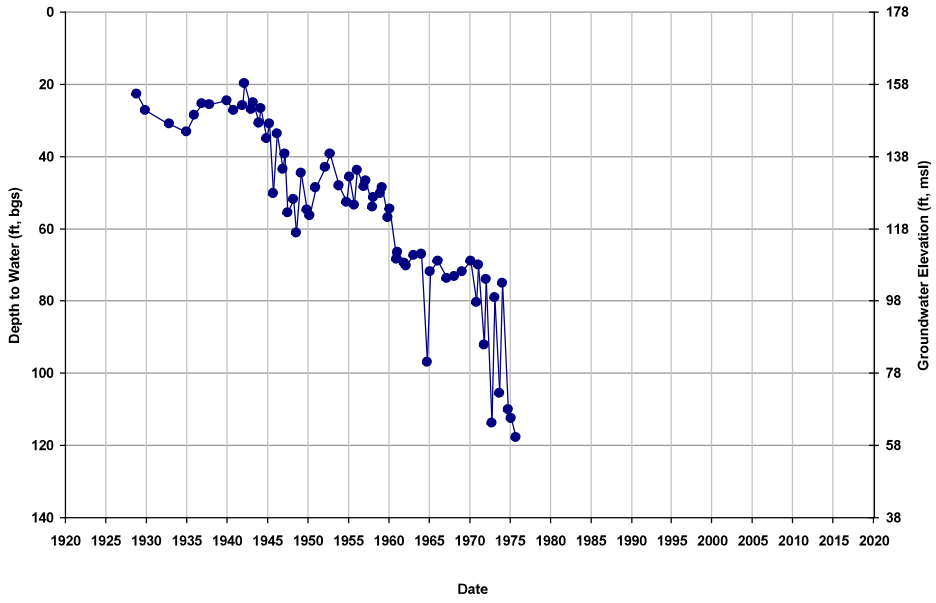
Well ID: 09S14E26J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 177
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



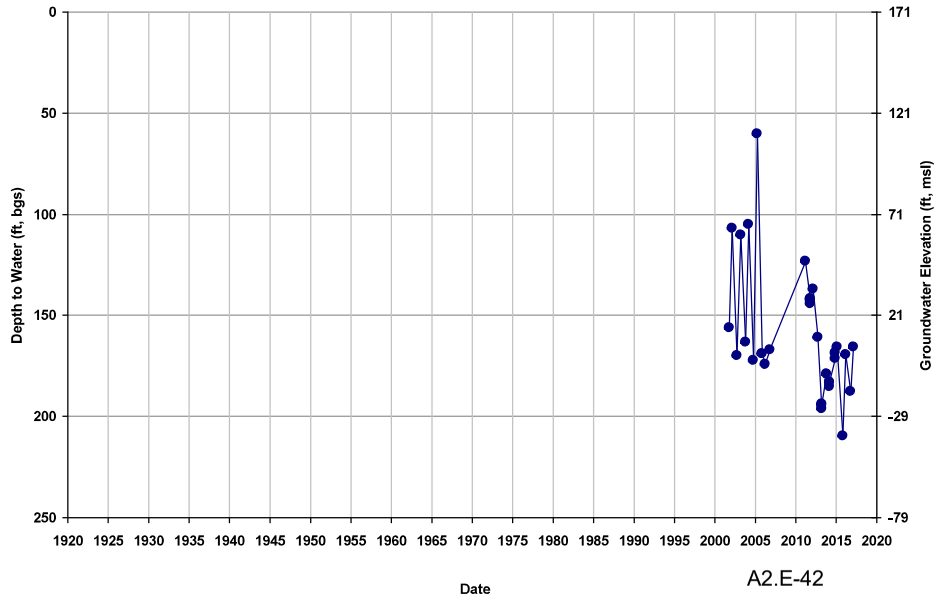
Well ID: 09S14E26R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 178
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



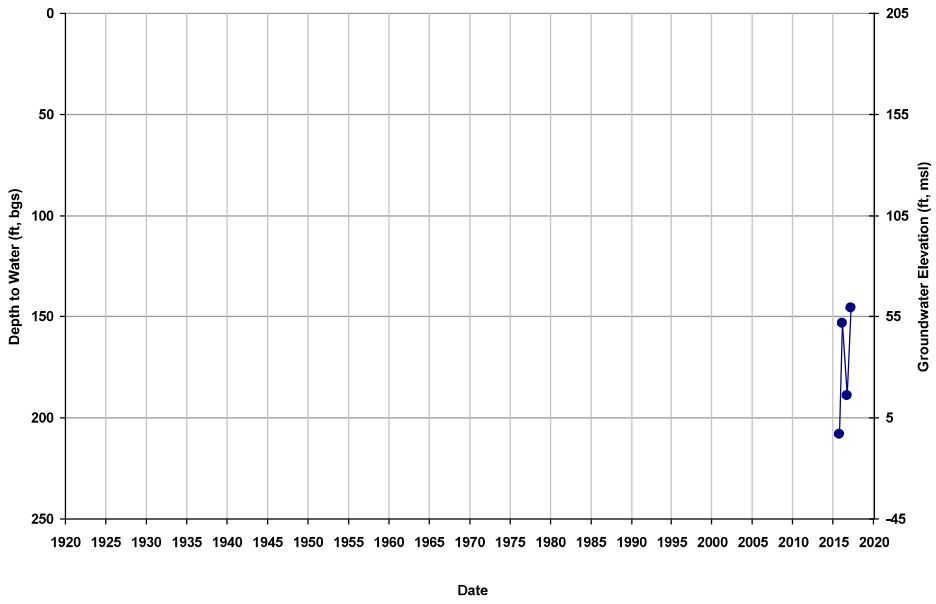
Well ID: 09S14E27R001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 171
Total Depth (ft): 275
Perf Top (ft): 160
Perf Bottom (ft): 275



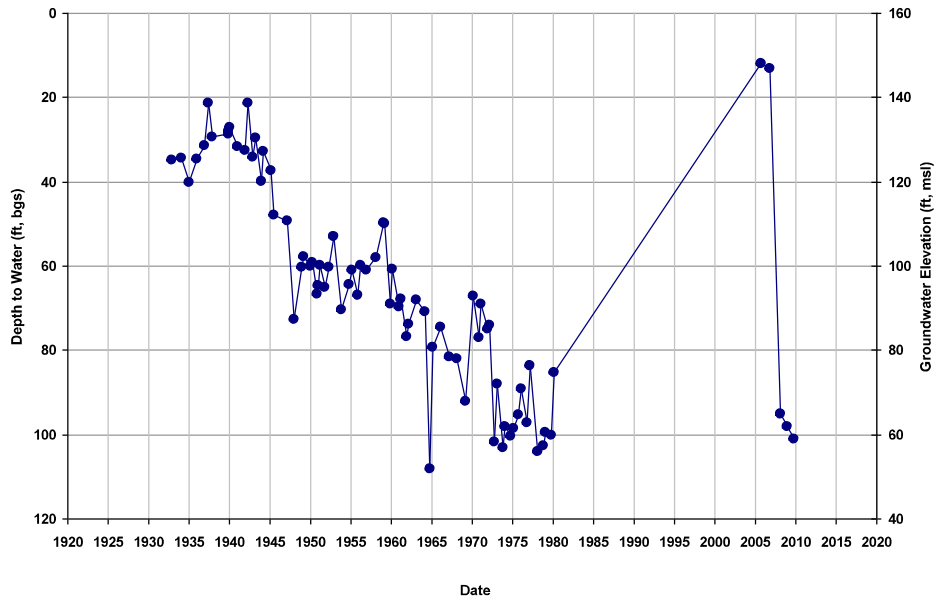
Well ID: 09S14E33L
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 205
Total Depth (ft): 290
Perf Top (ft): 265
Perf Bottom (ft): 285



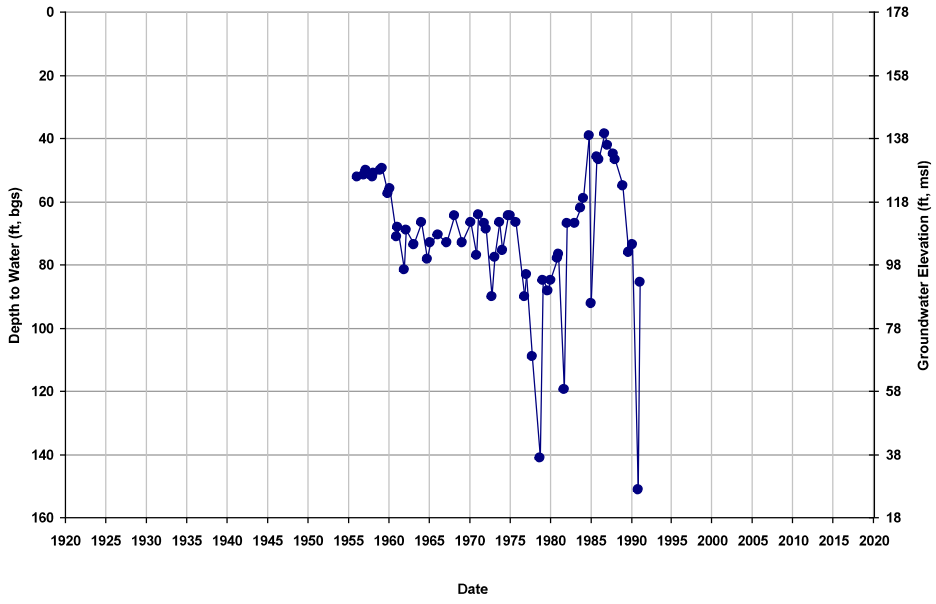
Well ID: 09S14E33R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



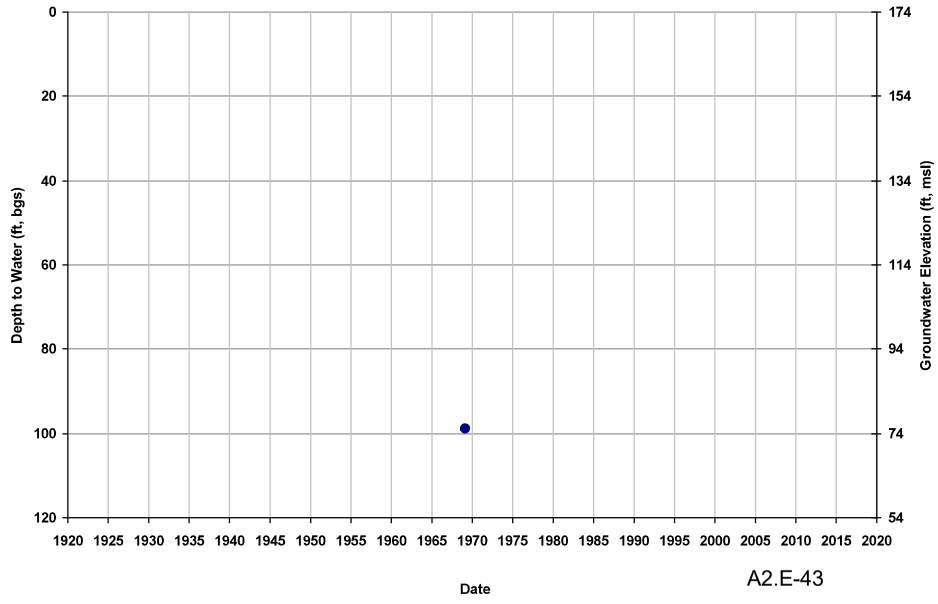
Well ID: 09S14E35J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 177
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



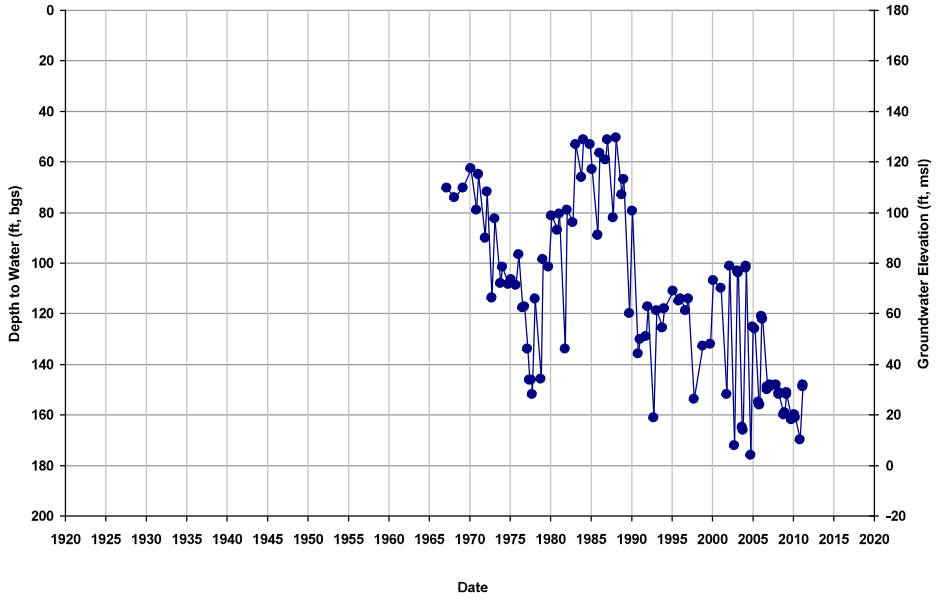
Well ID: 09S14E35L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 174
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



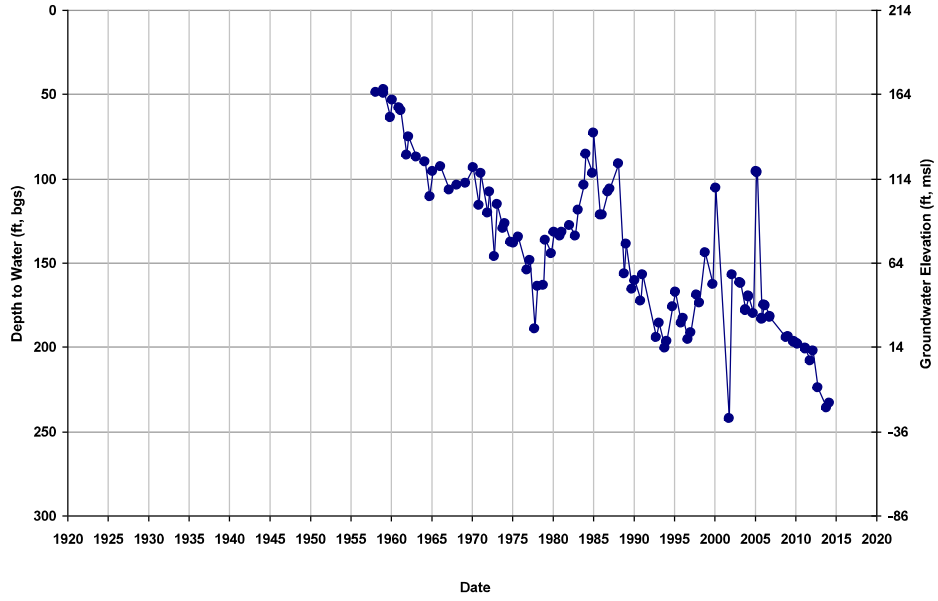
Well ID: 09S14E36C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 180
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



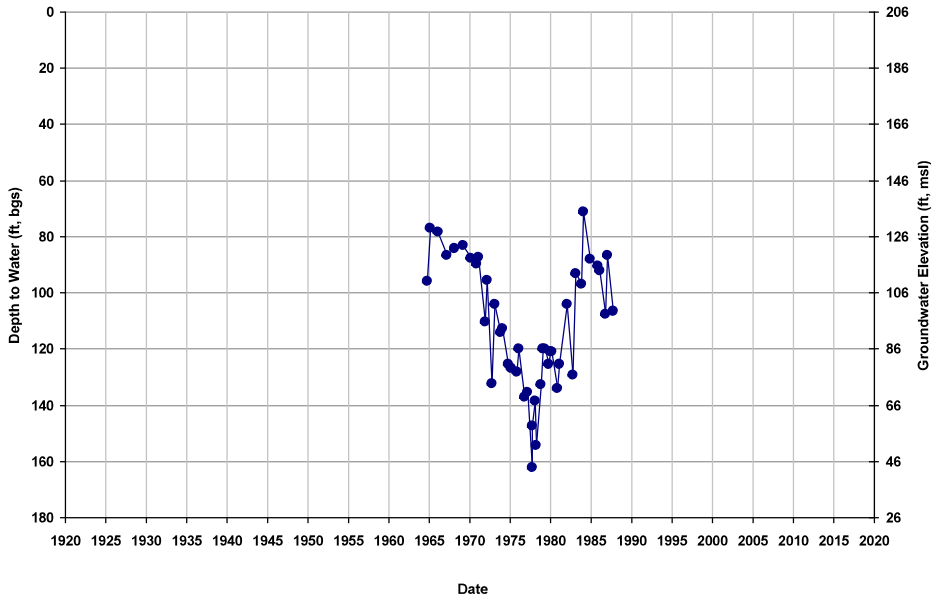
Well ID: 09S15E04R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 214
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



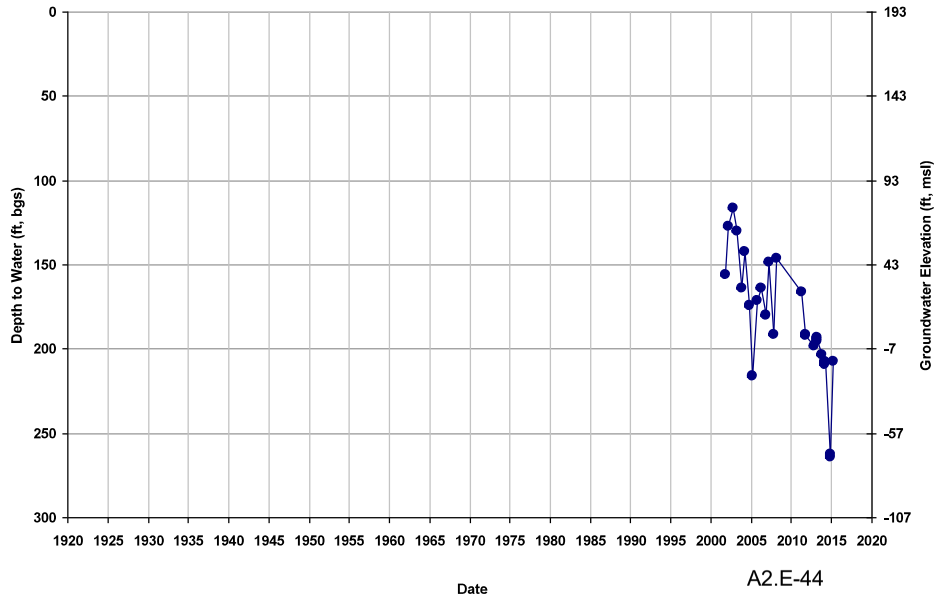
Well ID: 09S15E05A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 206
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



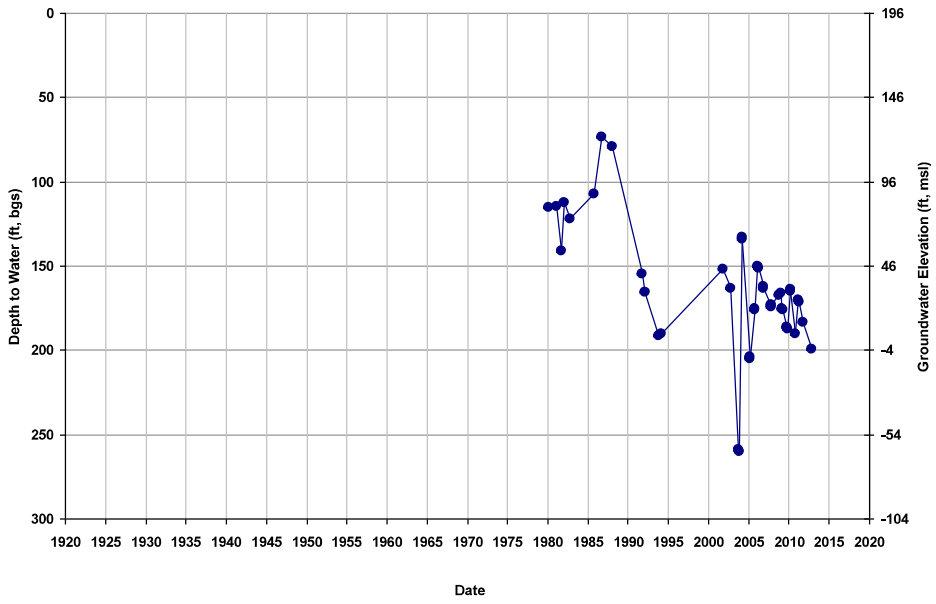
Well ID: 09S15E06P001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 193
Total Depth (ft): 780
Perf Top (ft): 230
Perf Bottom (ft): 775



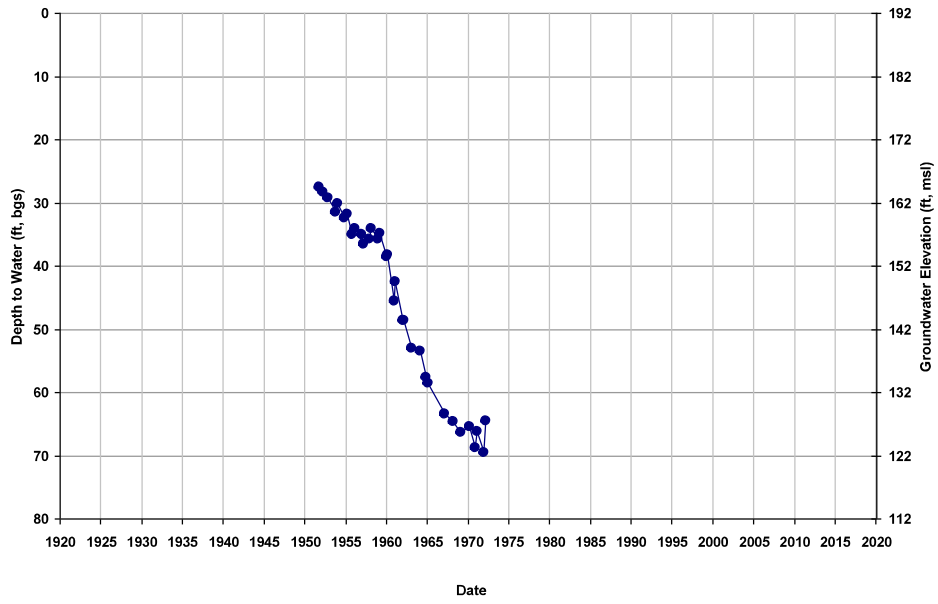
Well ID: 09S15E07H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 196
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



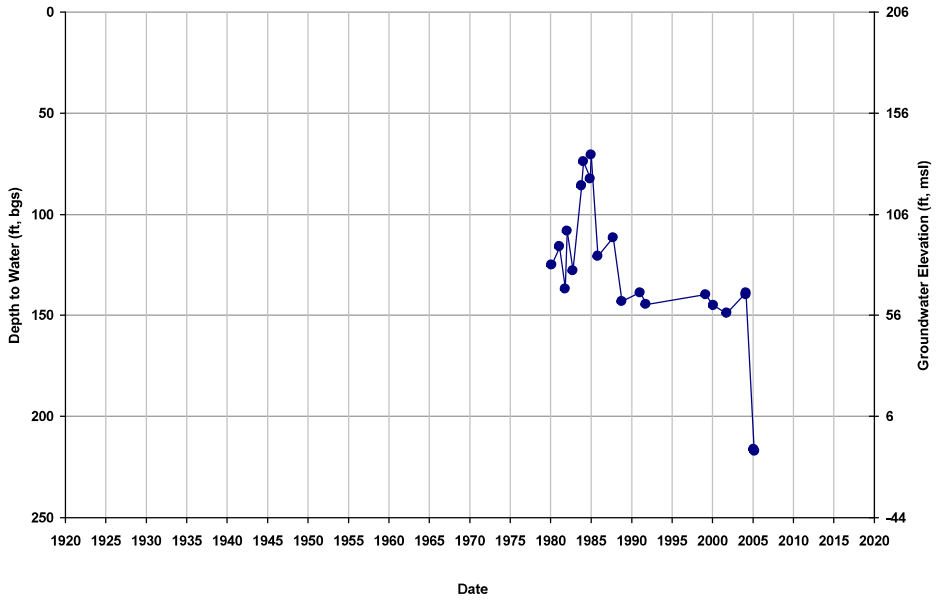
Well ID: 09S15E07L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 192
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



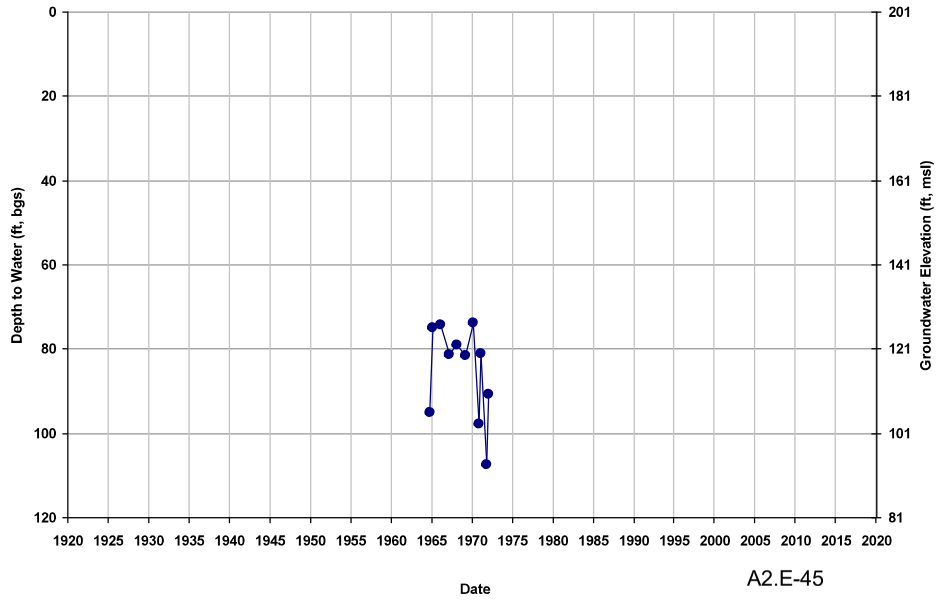
Well ID: 09S15E08A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 206
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



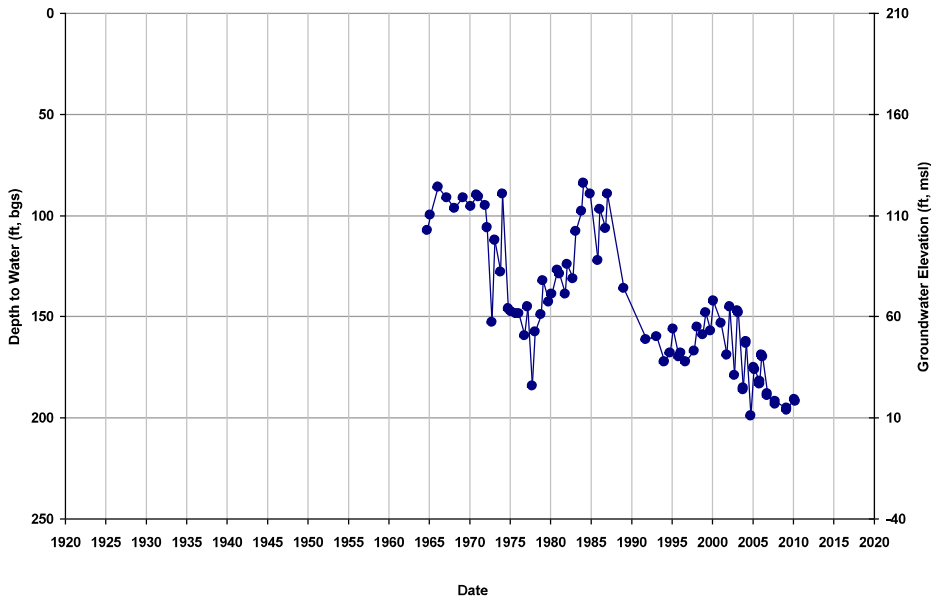
Well ID: 09S15E08C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 201
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



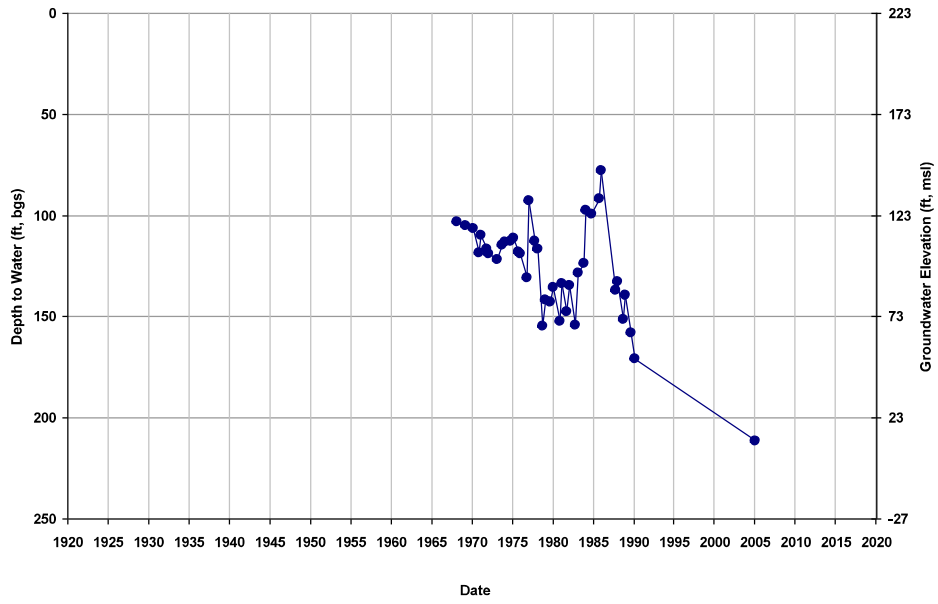
Well ID: 09S15E09P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 210
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



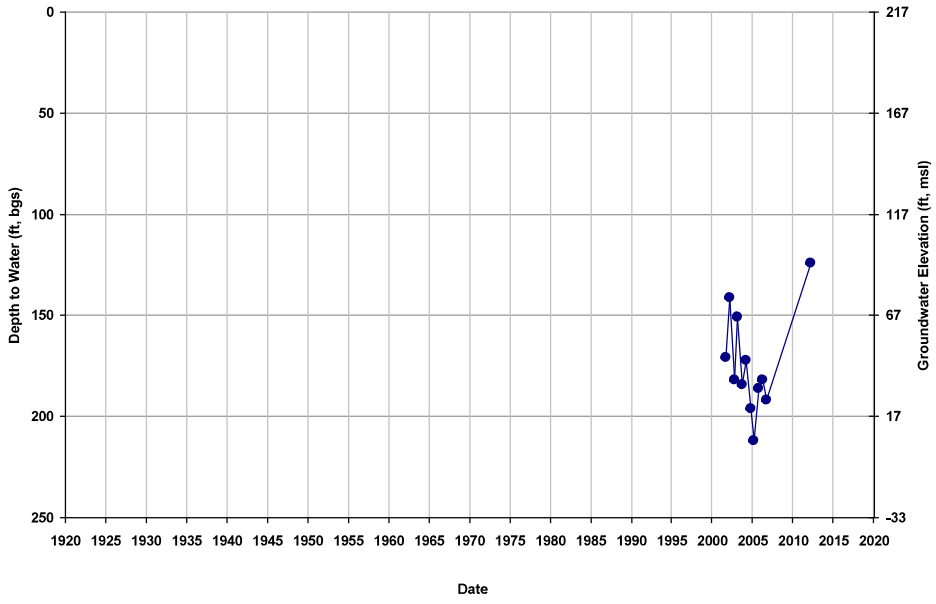
Well ID: 09S15E10A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 223
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



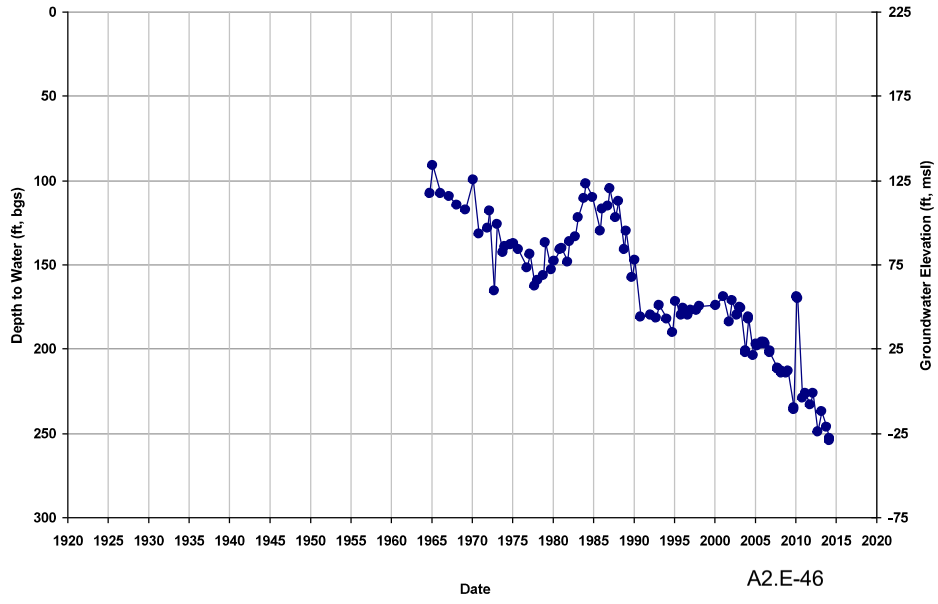
Well ID: 09S15E10P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 217
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



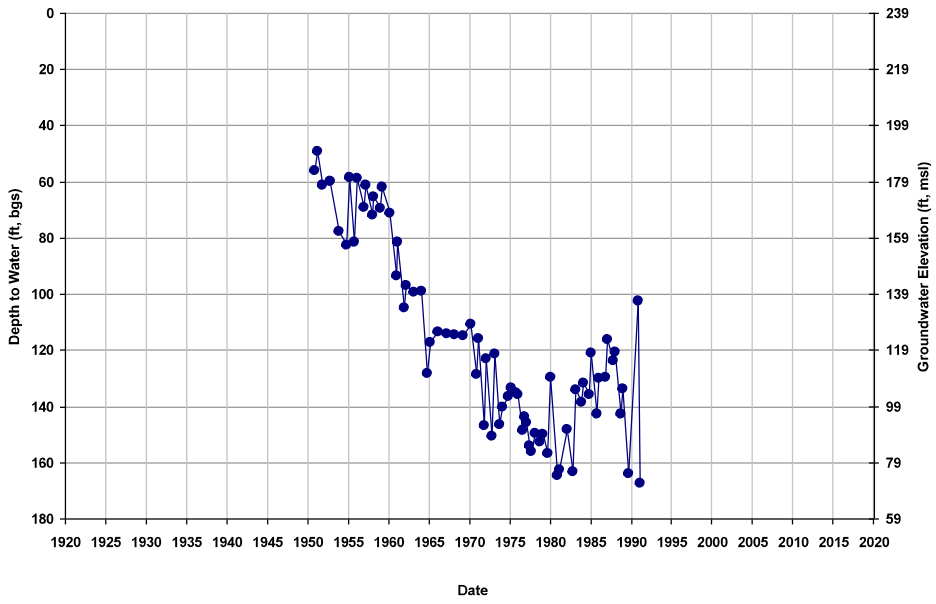
Well ID: 09S15E11F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 225
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



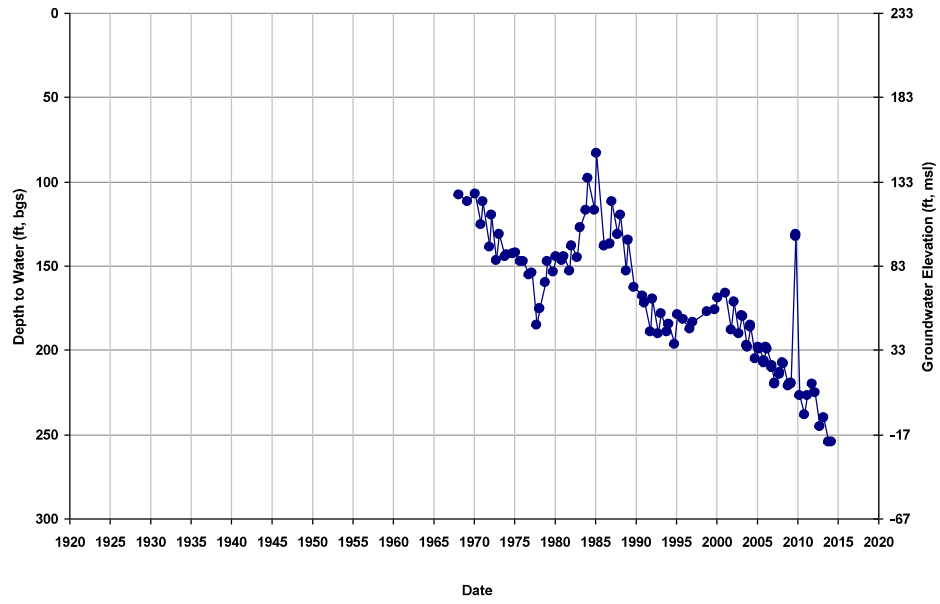
Well ID: 09S15E13A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 239
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



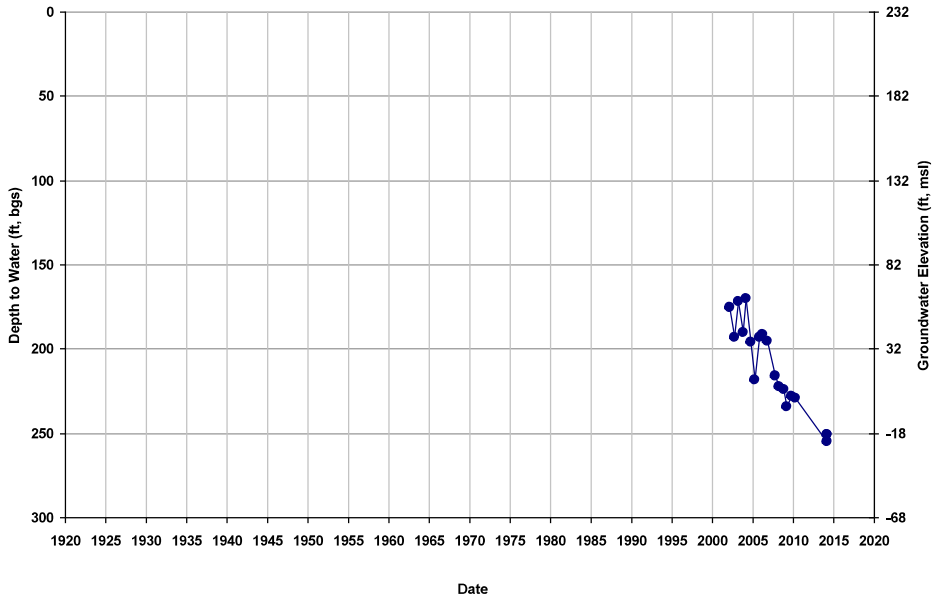
Well ID: 09S15E13E002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 232
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



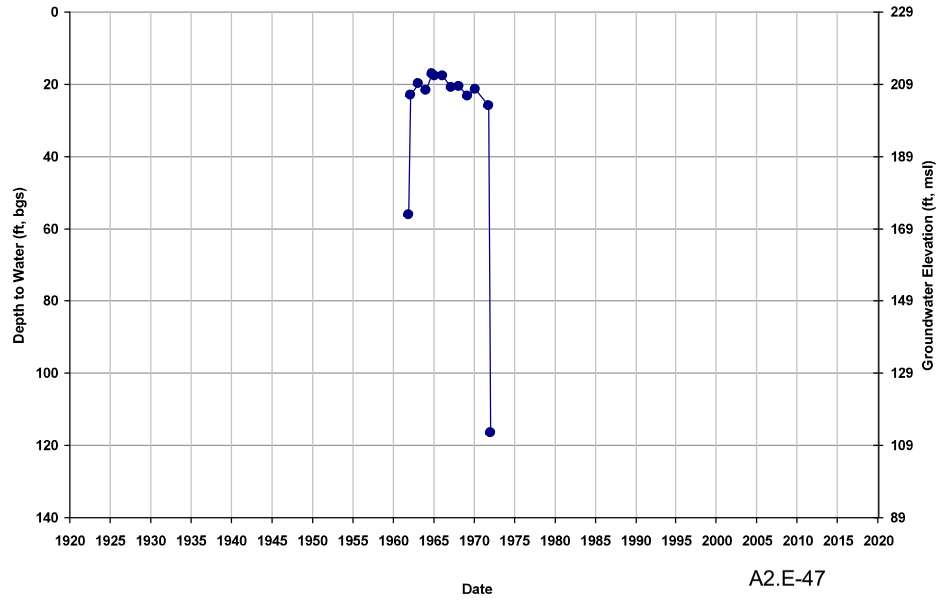
Well ID: 09S15E14A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 232
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



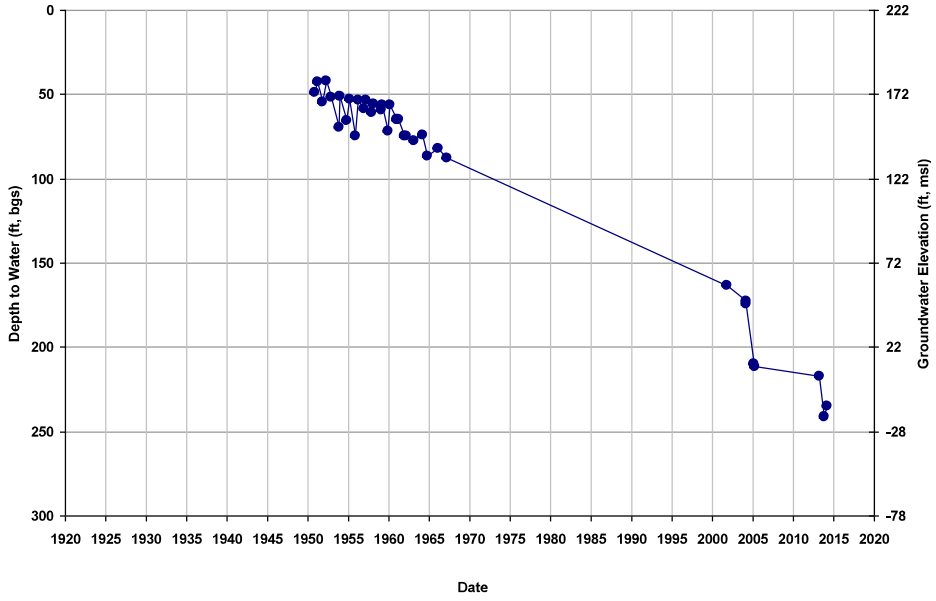
Well ID: 09S15E14J001M
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 229
Total Depth (ft): 419
Perf Top (ft): NA
Perf Bottom (ft): NA



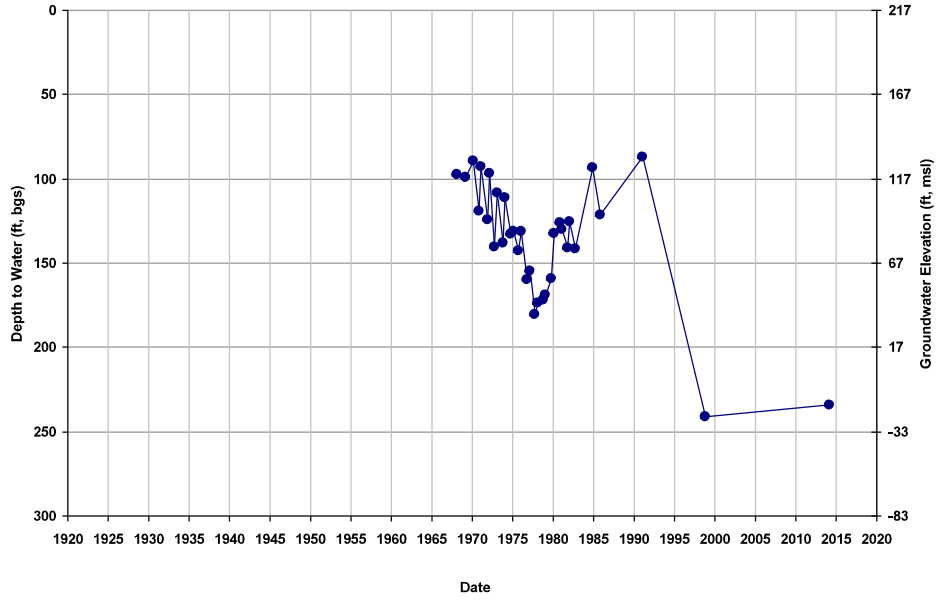
Well ID: 09S15E15P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 222
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



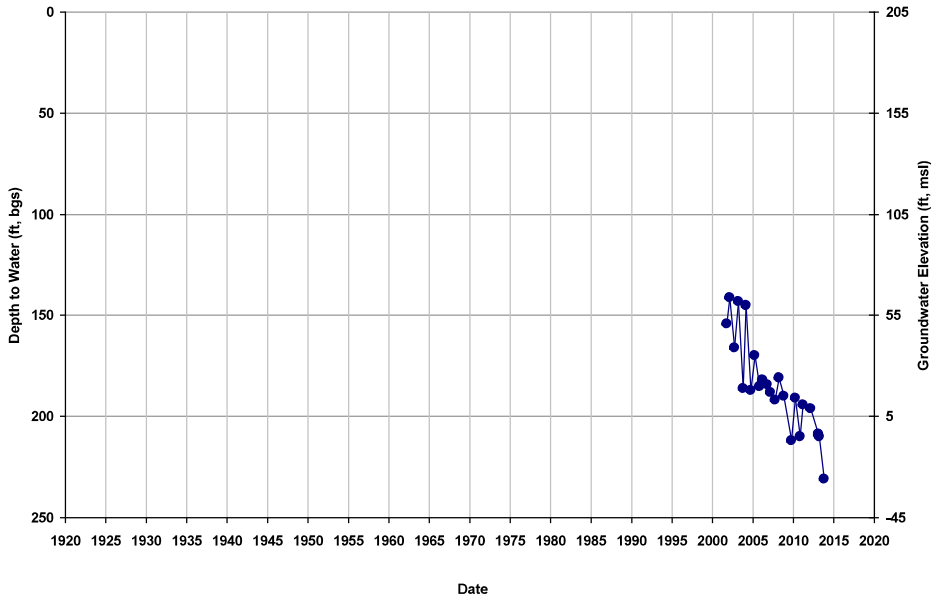
Well ID: 09S15E15P002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 217
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



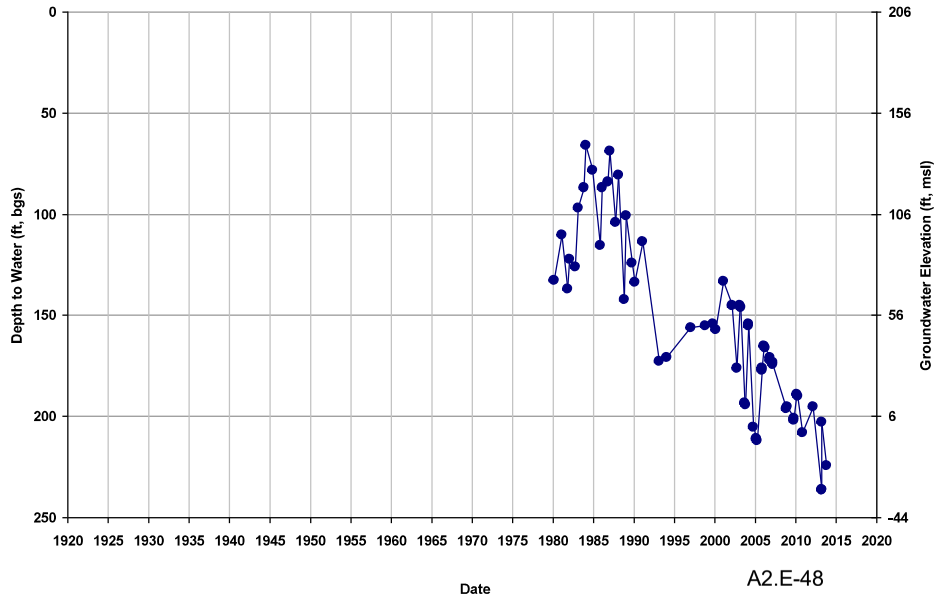
Well ID: 09S15E16E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 205
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



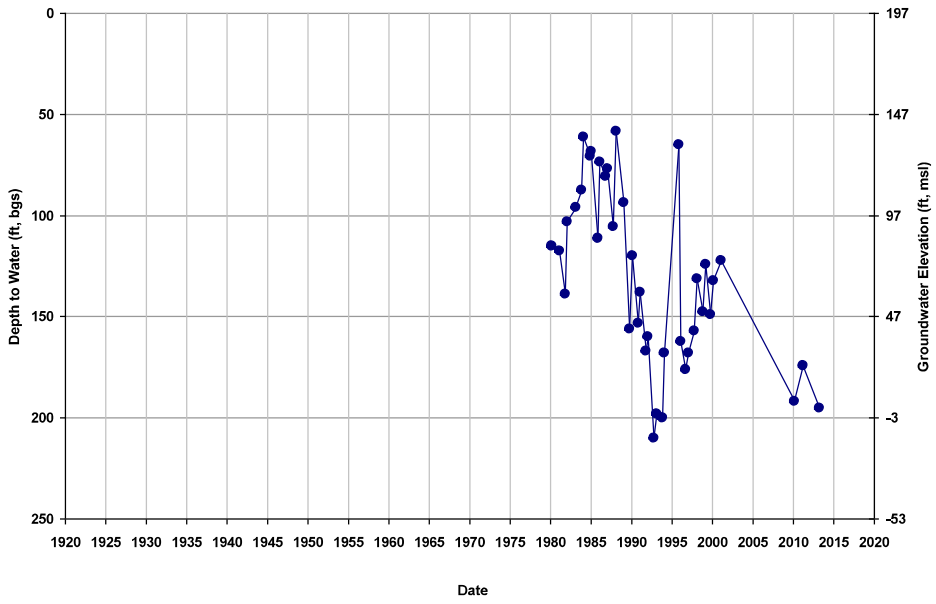
Well ID: 09S15E17R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 206
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



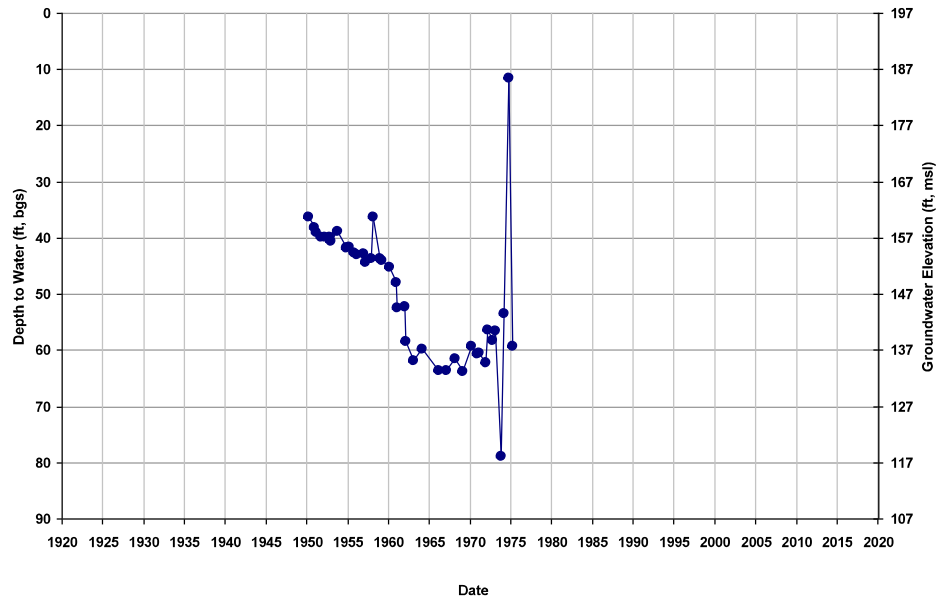
Well ID: 09S15E18J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



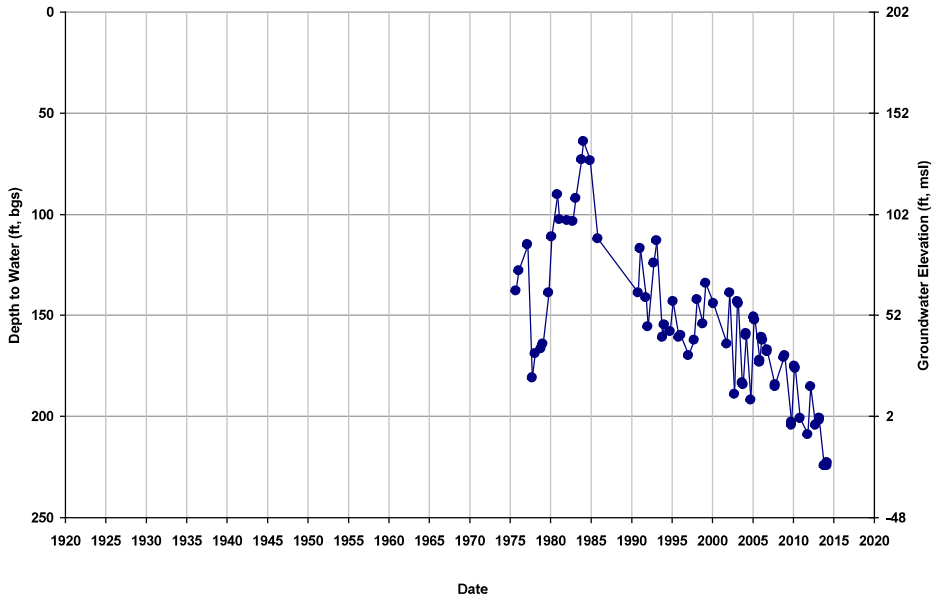
Well ID: 09S15E19A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



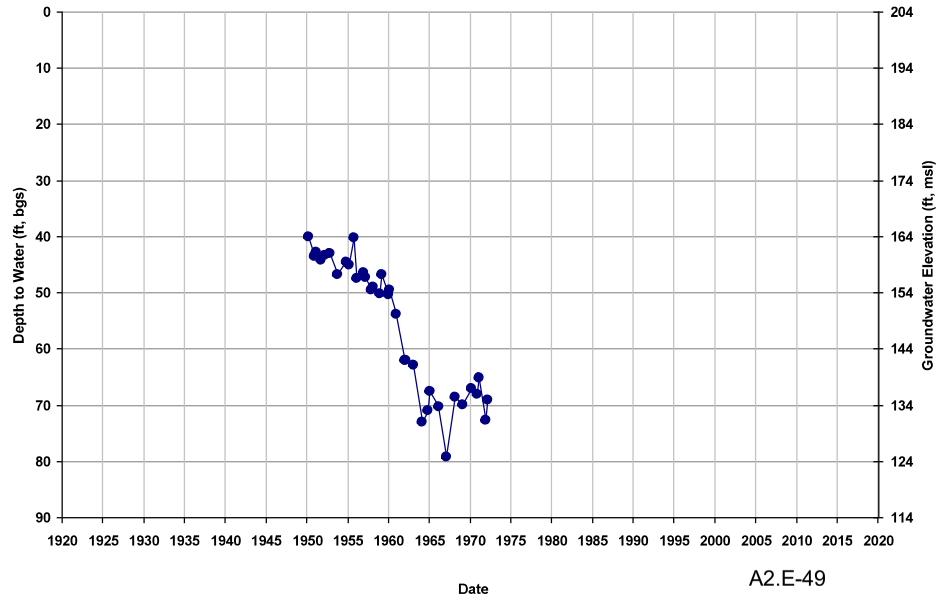
Well ID: 09S15E20C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 202
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



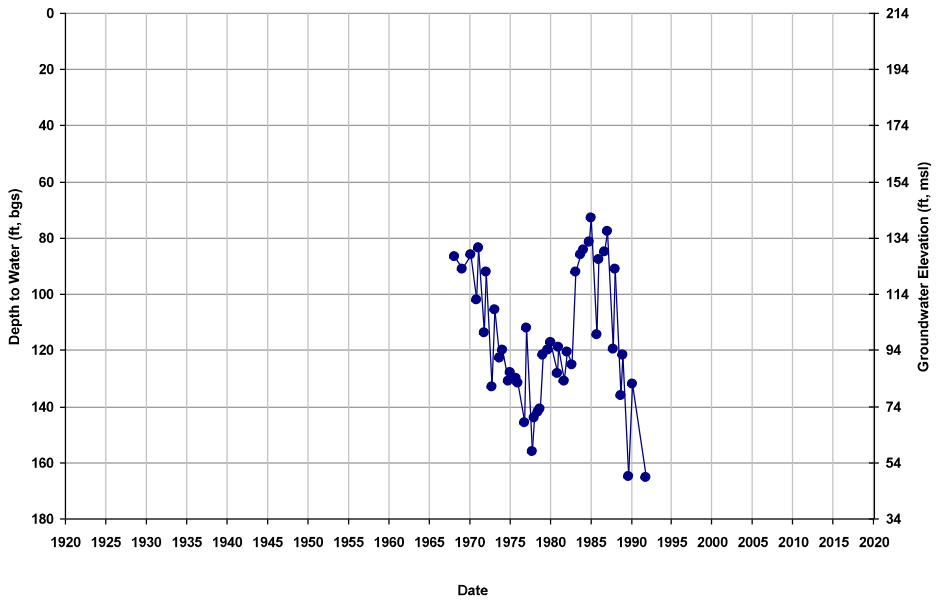
Well ID: 09S15E20G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 204
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



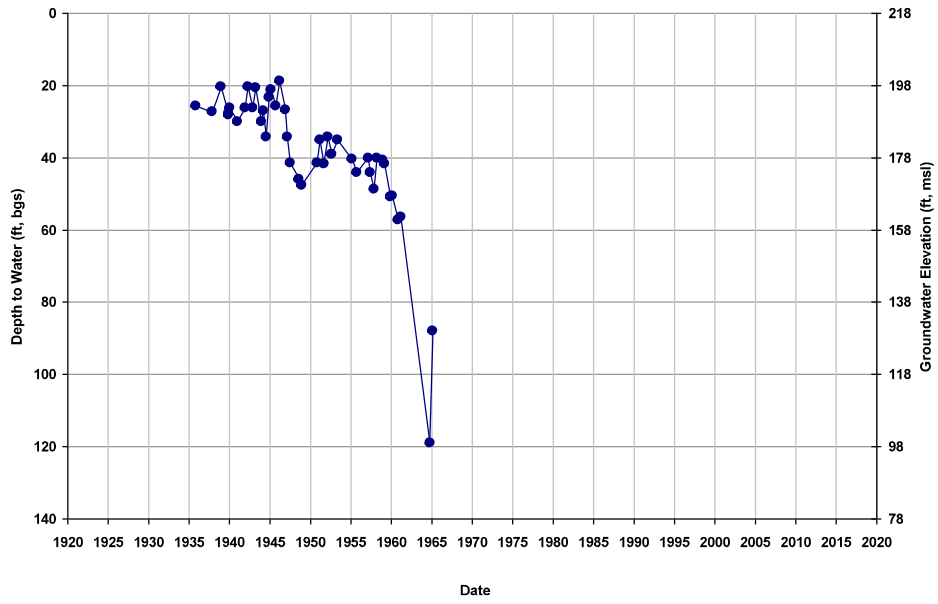
Well ID: 09S15E22N001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 214
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



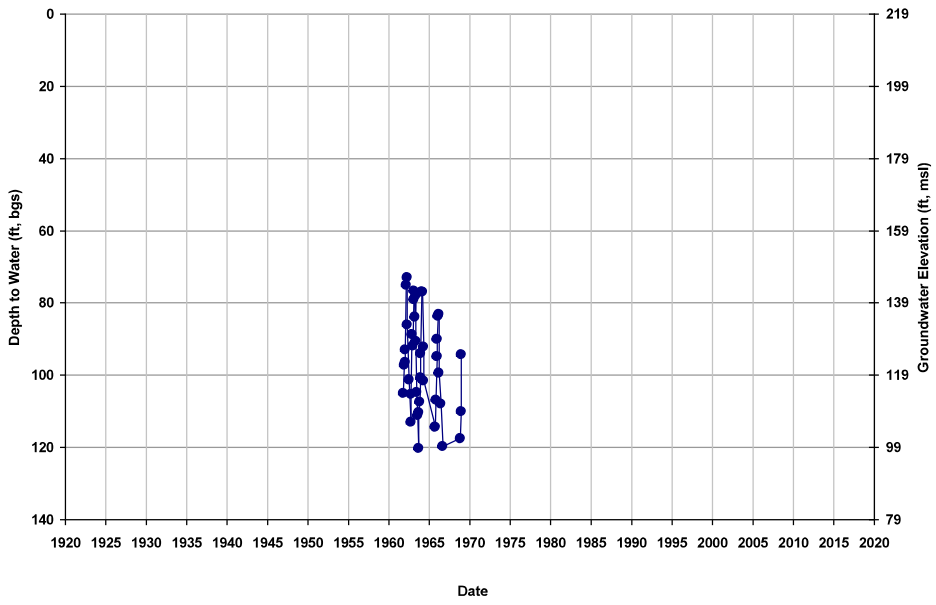
Well ID: 09S15E22R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 218
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



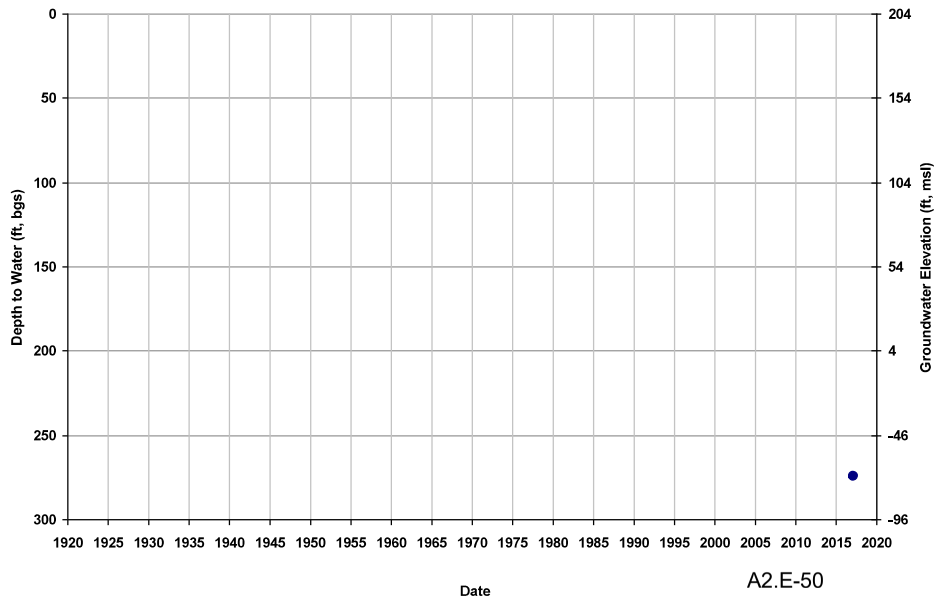
Well ID: 09S15E22R002M
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 218
Total Depth (ft): 190
Perf Top (ft): NA
Perf Bottom (ft): NA



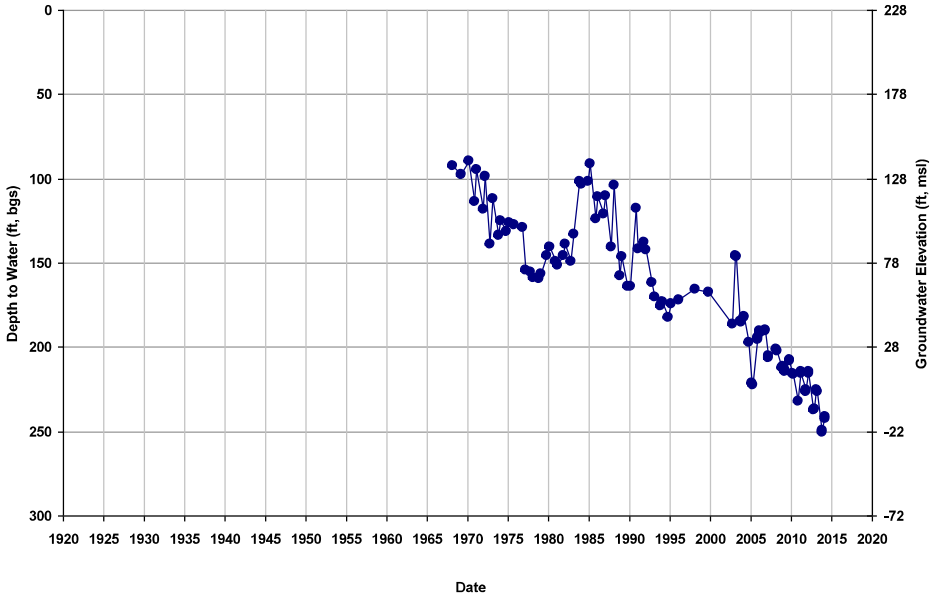
Well ID: 09S15E23J
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 204
Total Depth (ft): 291
Perf Top (ft): NA
Perf Bottom (ft): NA



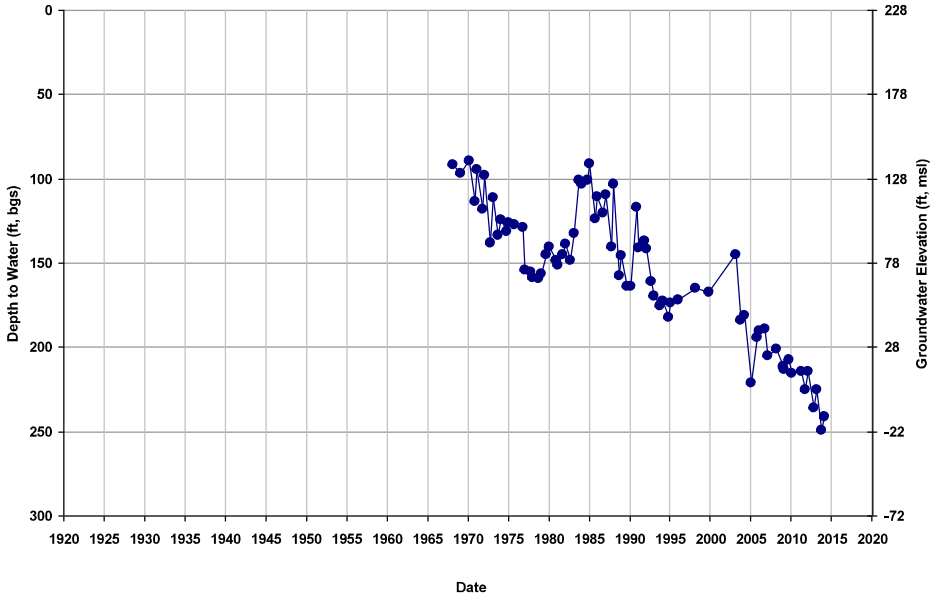
Well ID: 09S15E23J002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 228
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



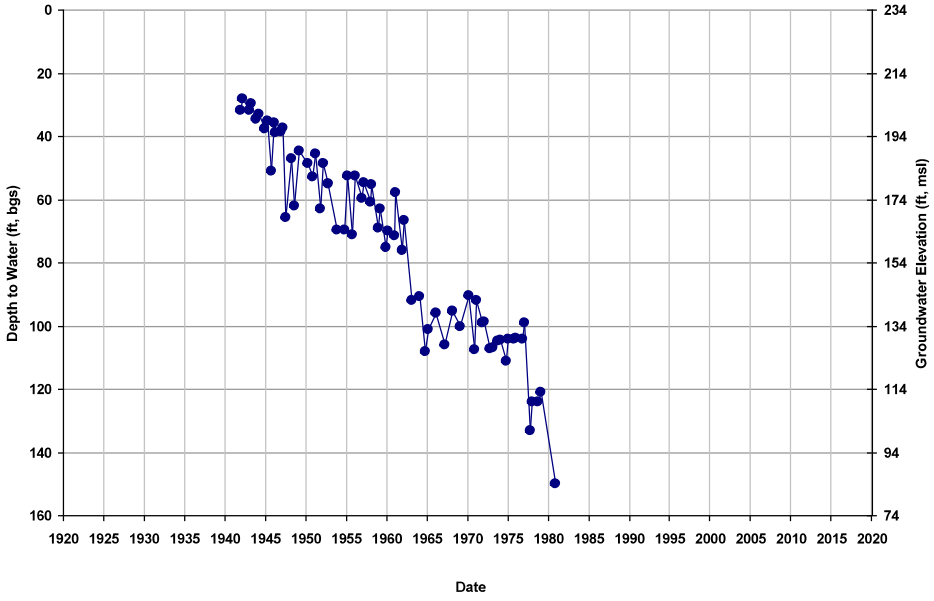
Well ID: 09S15E23J2
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 228
Total Depth (ft): 291
Perf Top (ft): 290.5
Perf Bottom (ft): 291



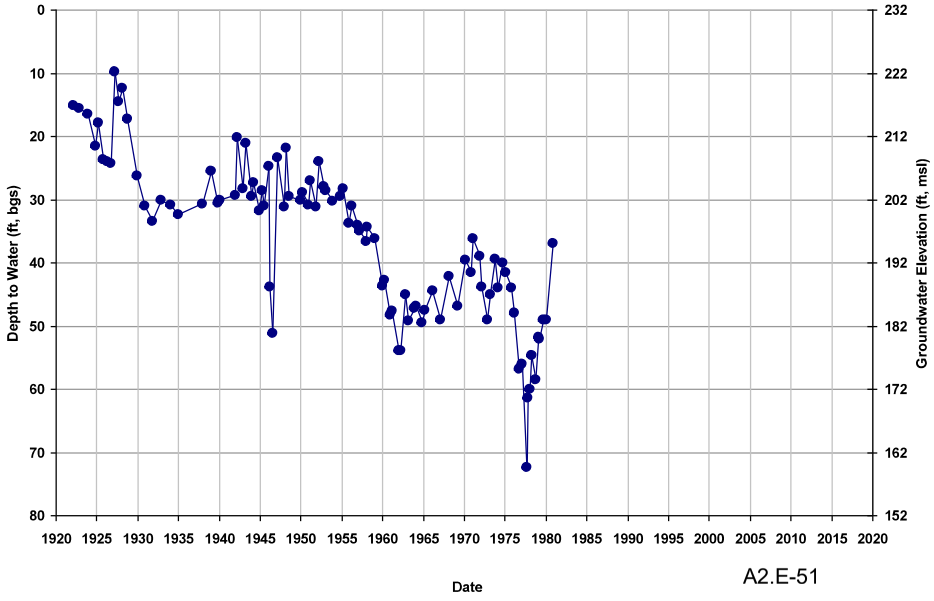
Well ID: 09S15E24E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 234
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



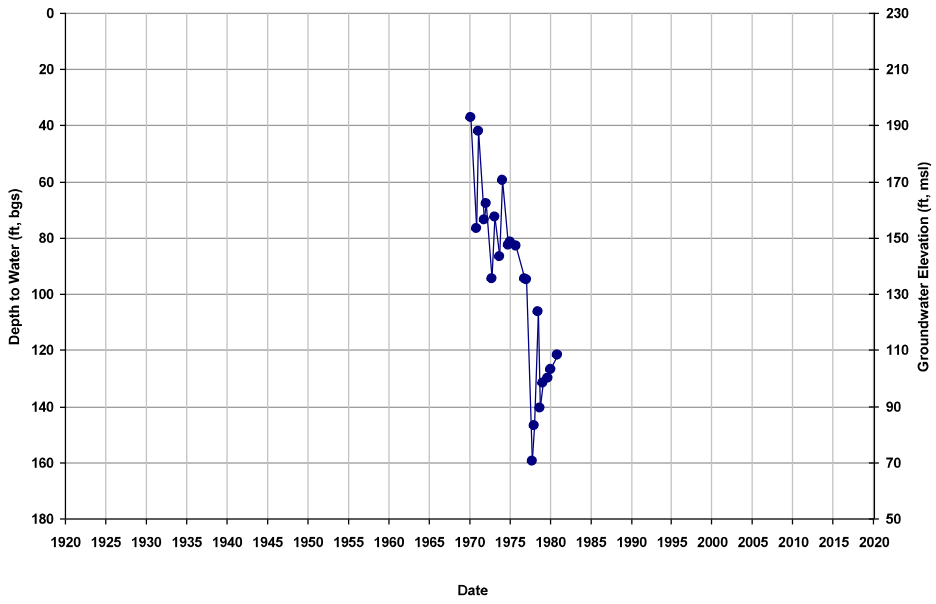
Well ID: 09S15E25J002M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 232
Total Depth (ft): 79
Perf Top (ft): NA
Perf Bottom (ft): NA



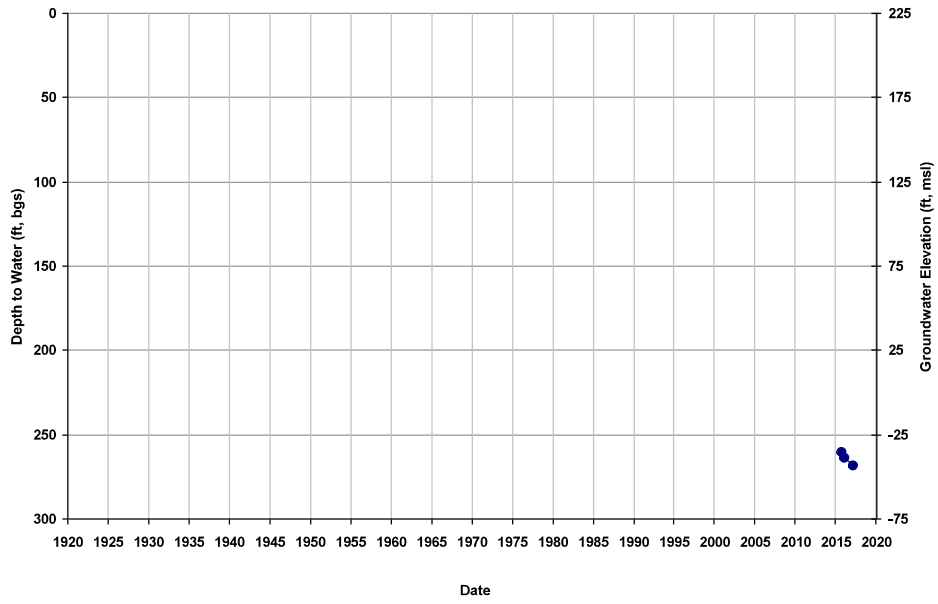
Well ID: 09S15E25L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 229
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



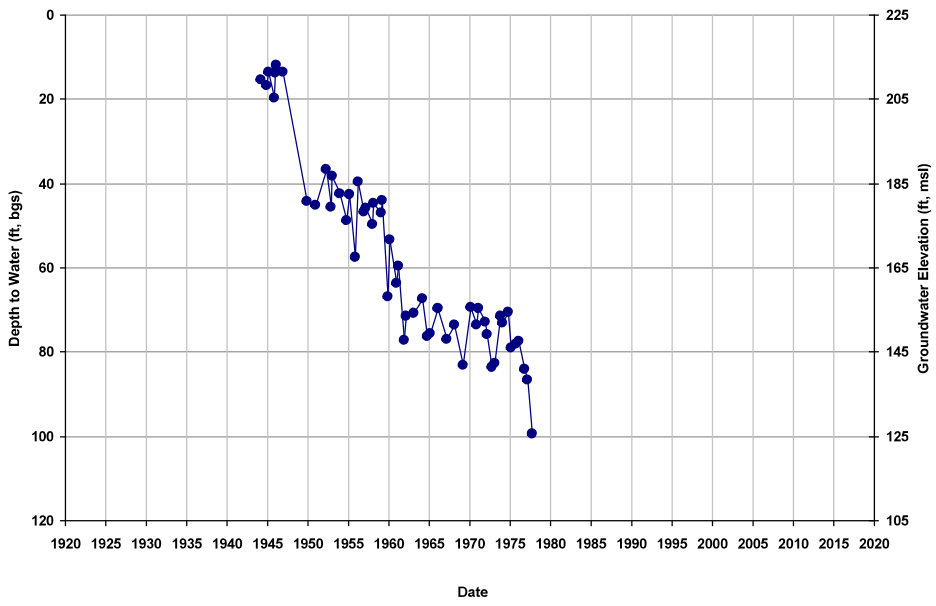
Well ID: 09S15E26A
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 225
Total Depth (ft): 800
Perf Top (ft): 320
Perf Bottom (ft): 800



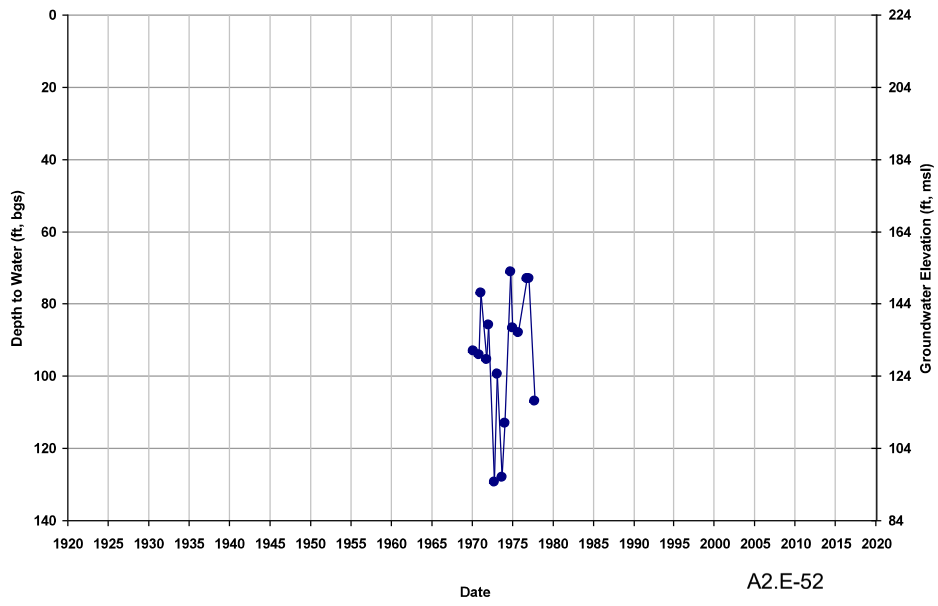
Well ID: 09S15E26J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 225
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



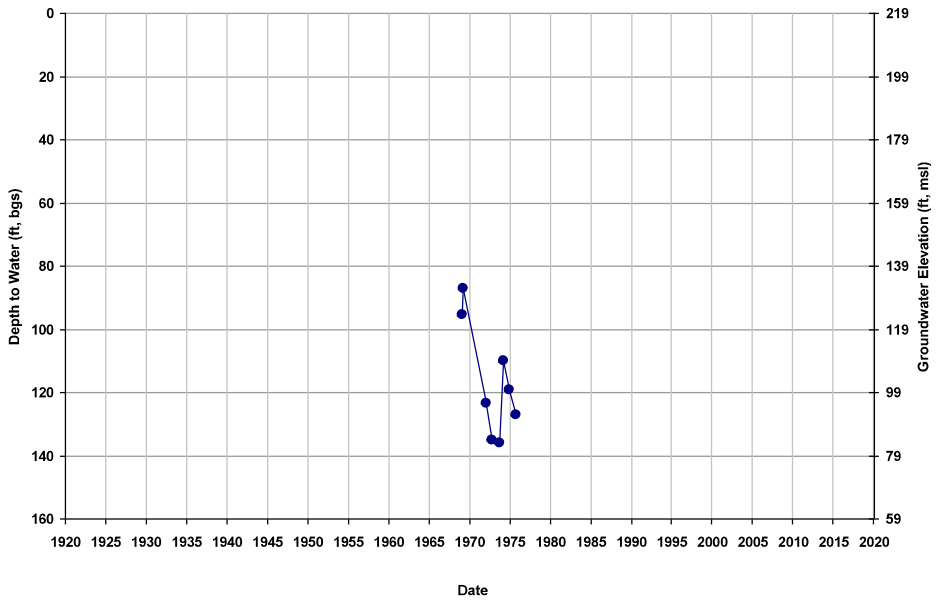
Well ID: 09S15E26K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 224
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



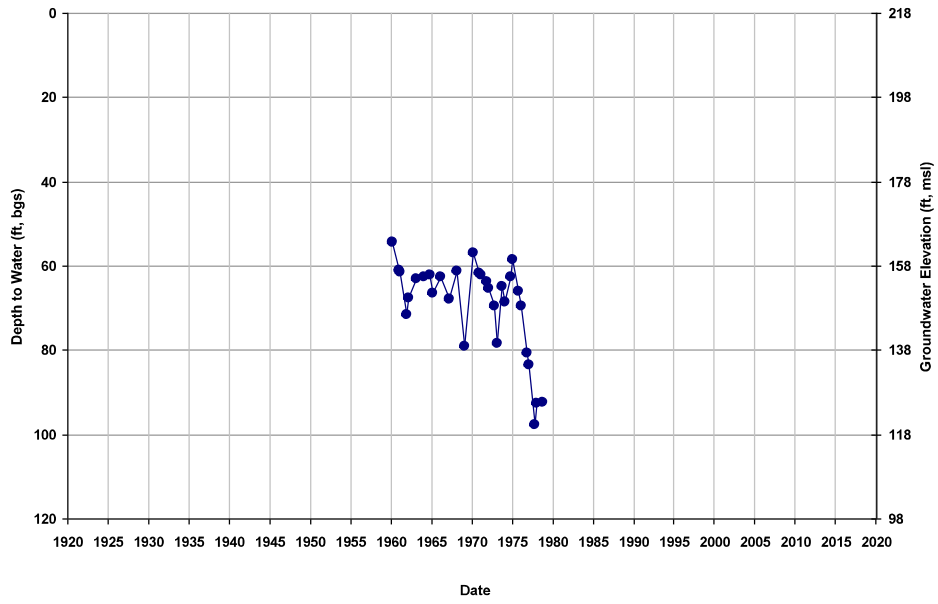
Well ID: 09S15E27A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 219
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



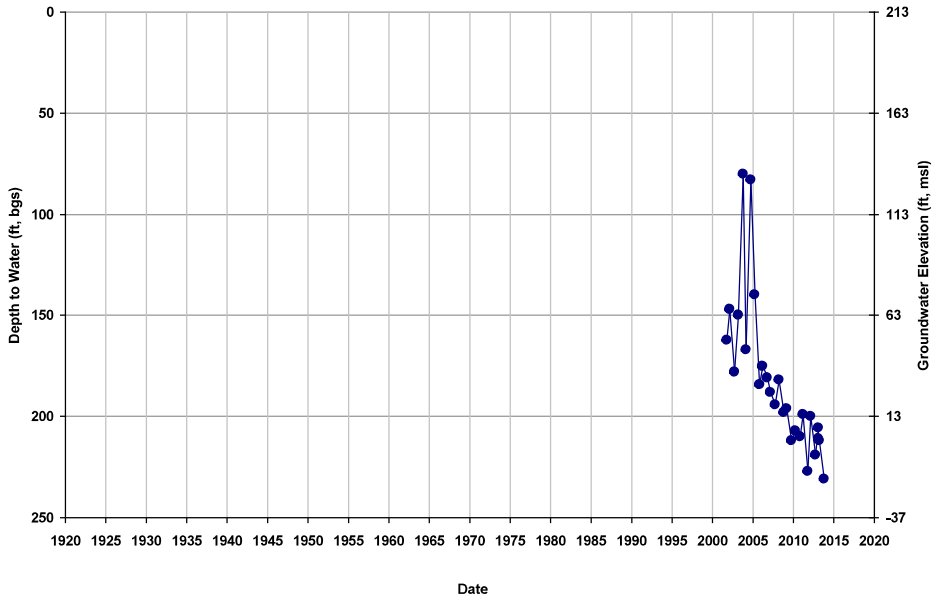
Well ID: 09S15E27J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 218
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



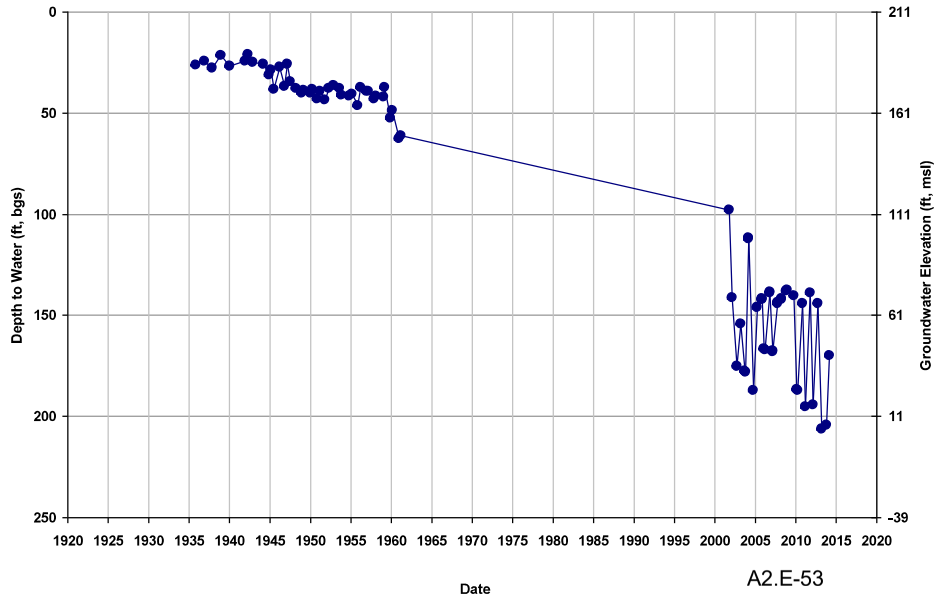
Well ID: 09S15E27Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 212
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



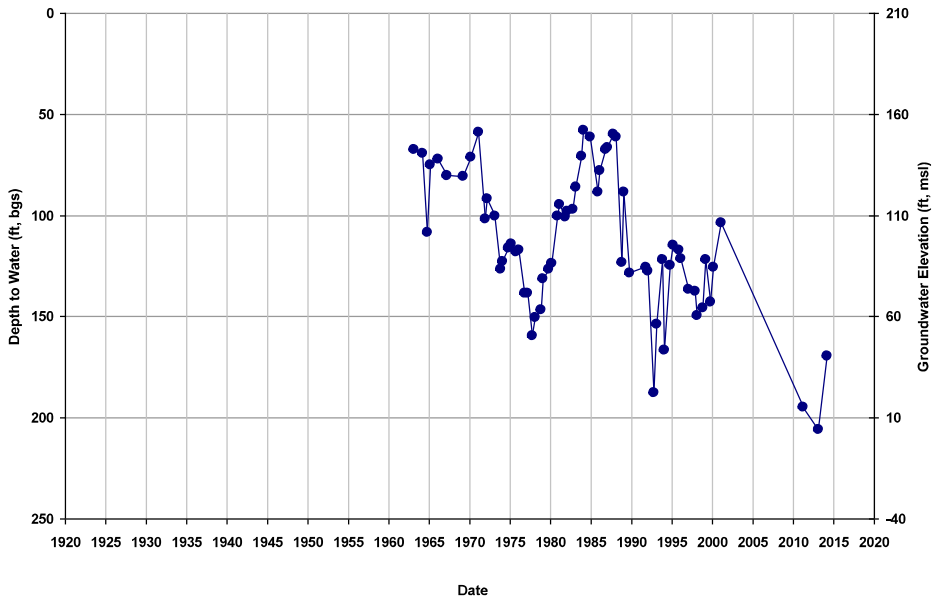
Well ID: 09S15E28A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 210
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



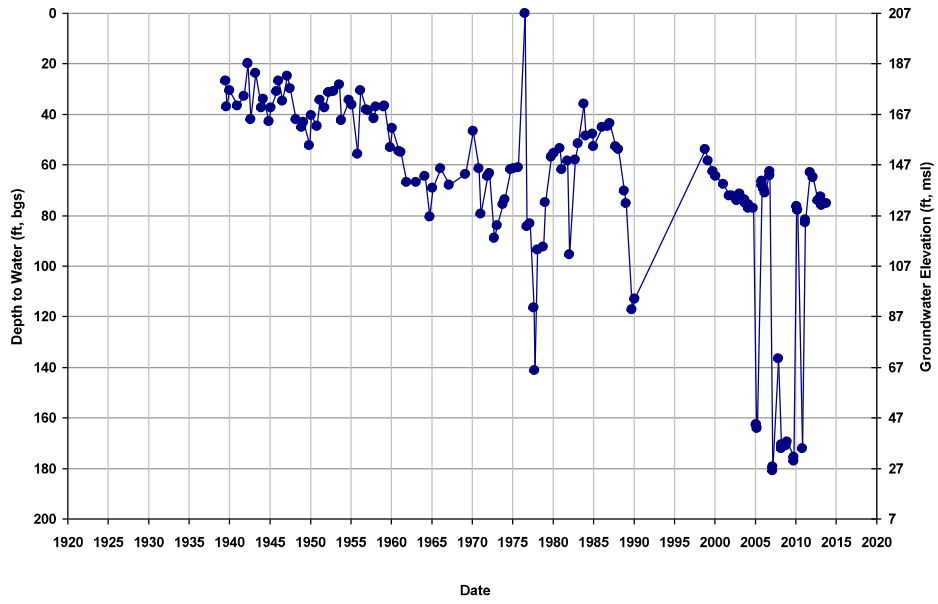
Well ID: 09S15E28A002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 210
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



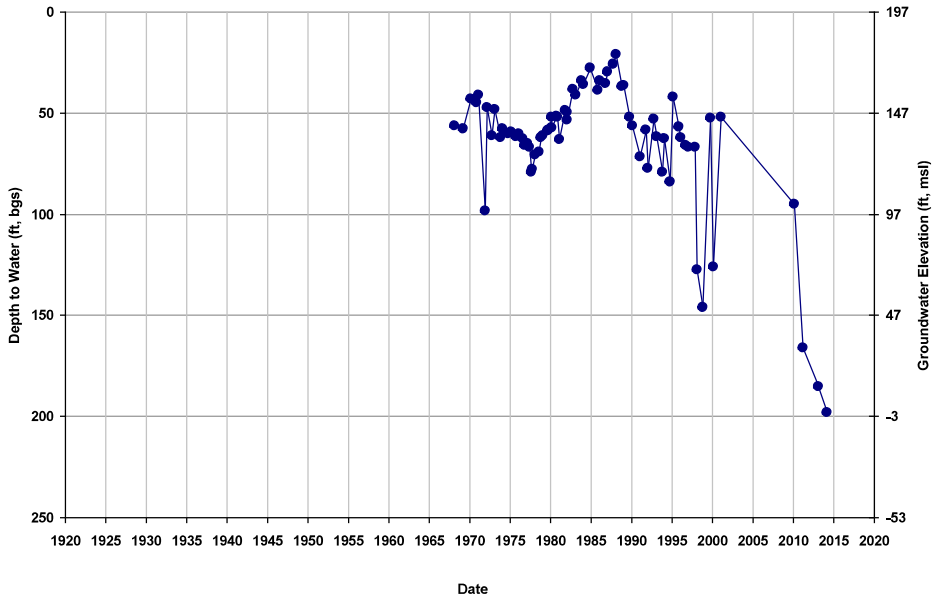
Well ID: 09S15E28R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 207
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



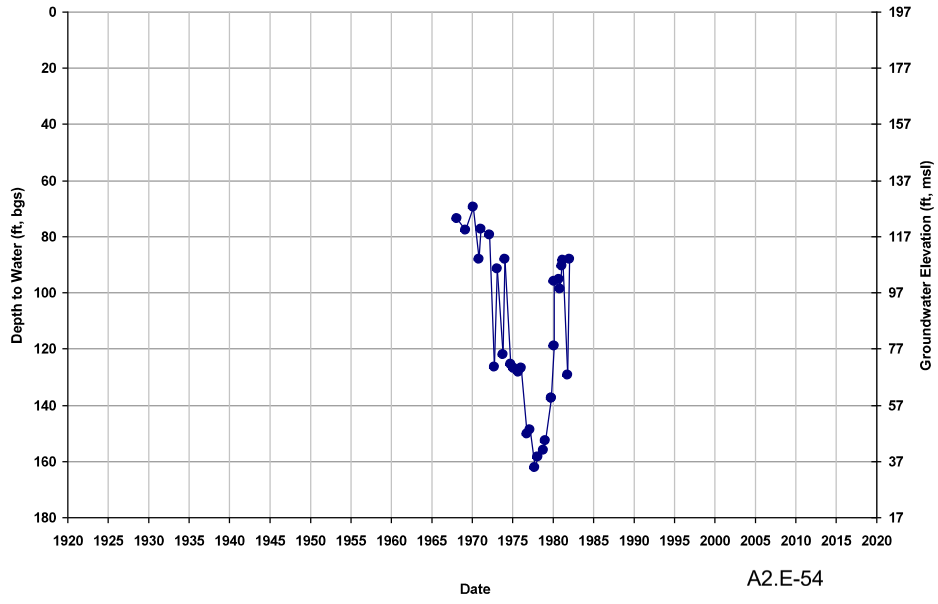
Well ID: 09S15E29D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



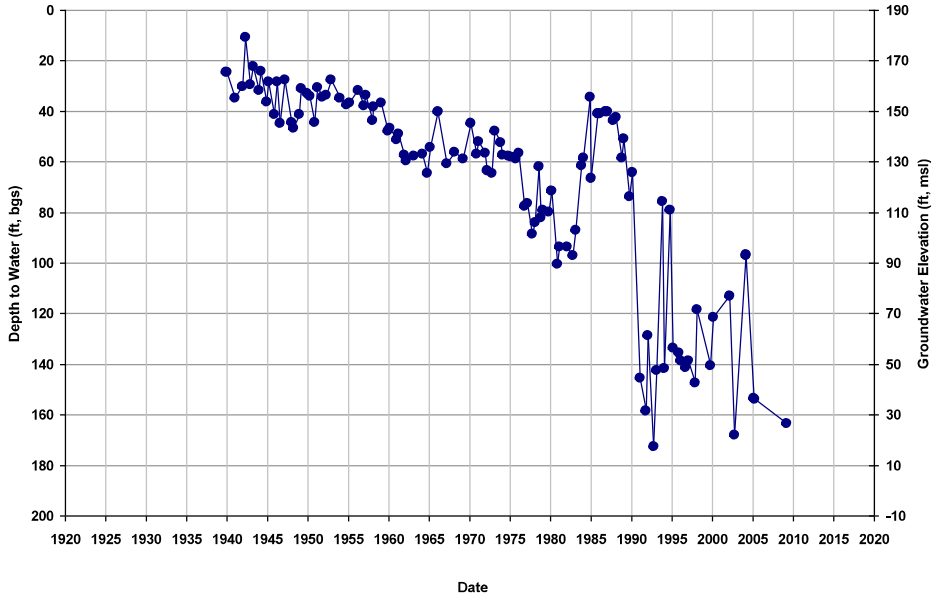
Well ID: 09S15E29F001M
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): 342
Perf Top (ft): NA
Perf Bottom (ft): NA



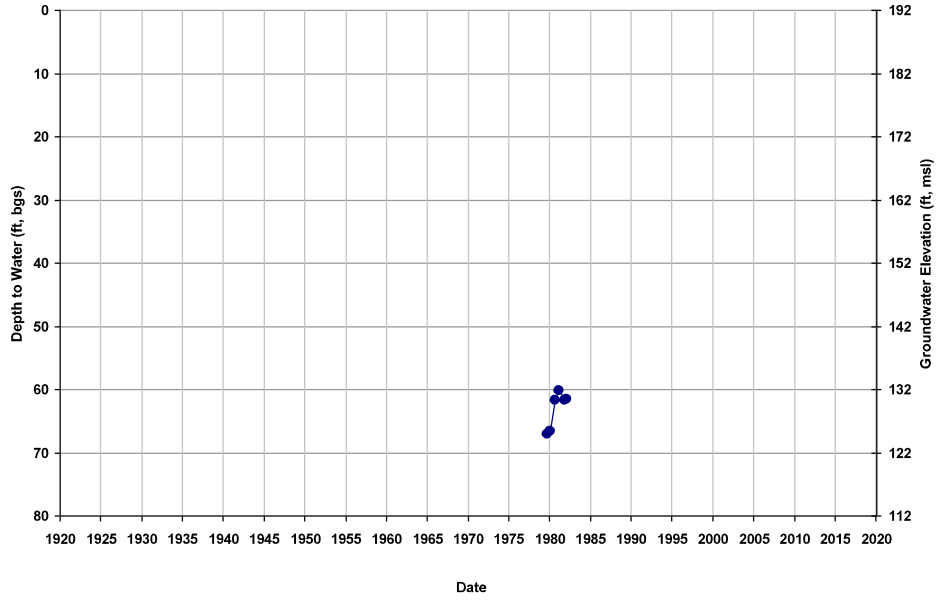
Well ID: 09S15E30G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 189
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



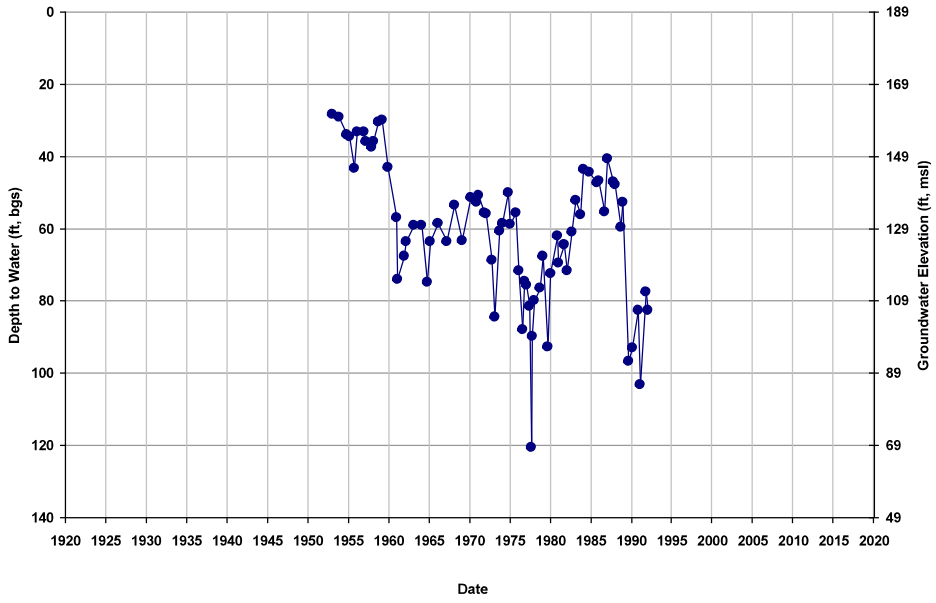
Well ID: 09S15E31H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 192
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



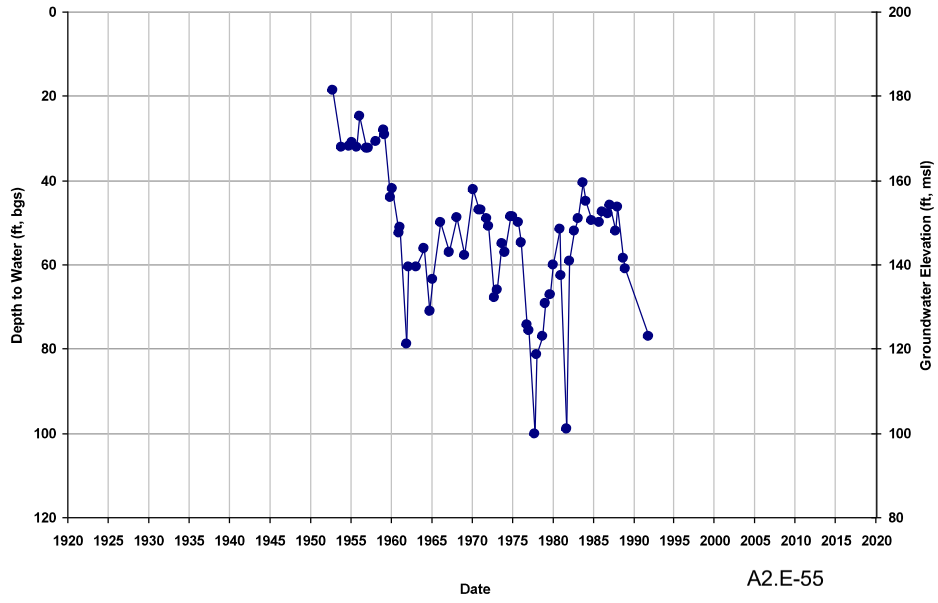
Well ID: 09S15E31J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 189
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



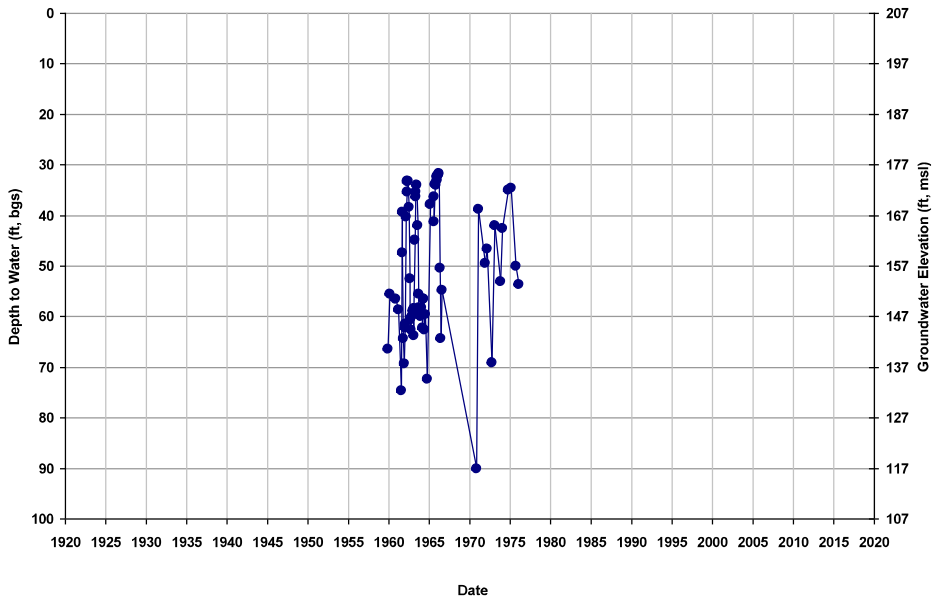
Well ID: 09S15E32R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 200
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



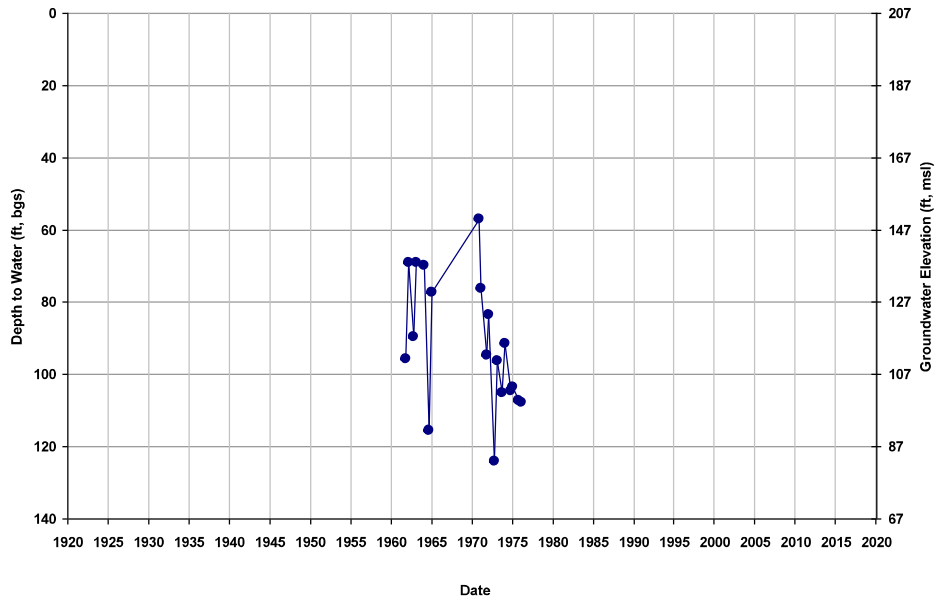
Well ID: 09S15E33B001M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 207
Total Depth (ft): 110
Perf Top (ft): NA
Perf Bottom (ft): NA



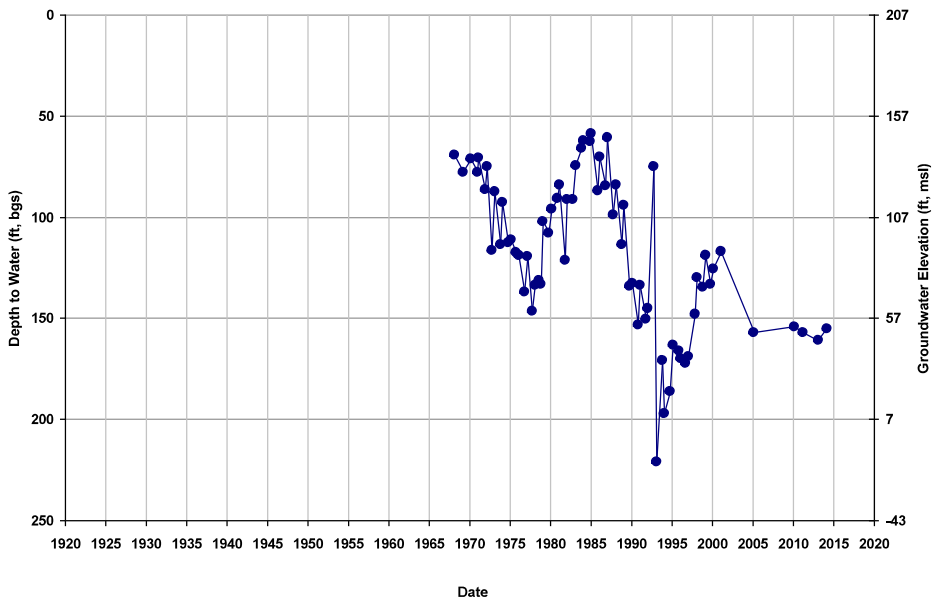
Well ID: 09S15E33B002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 207
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



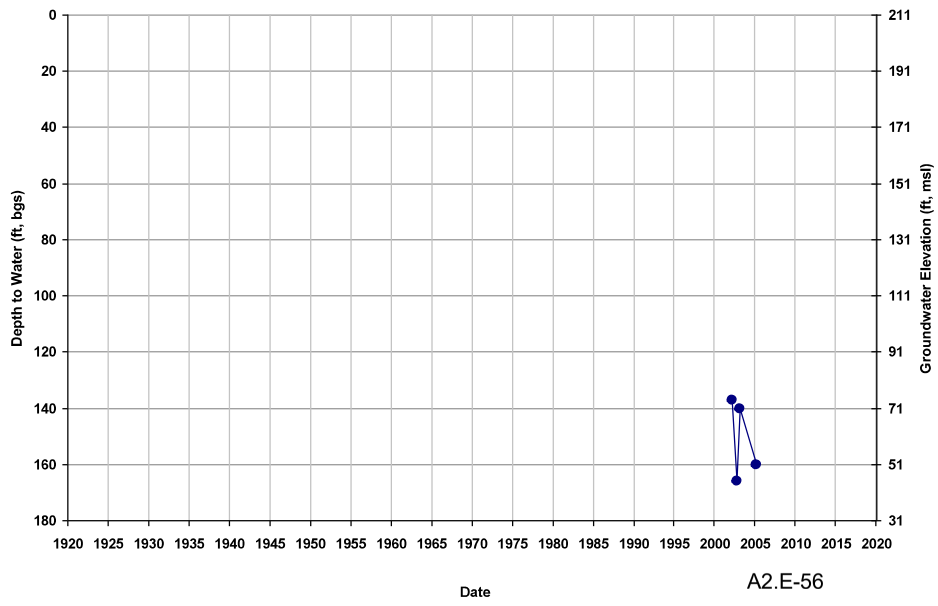
Well ID: 09S15E33J002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 207
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



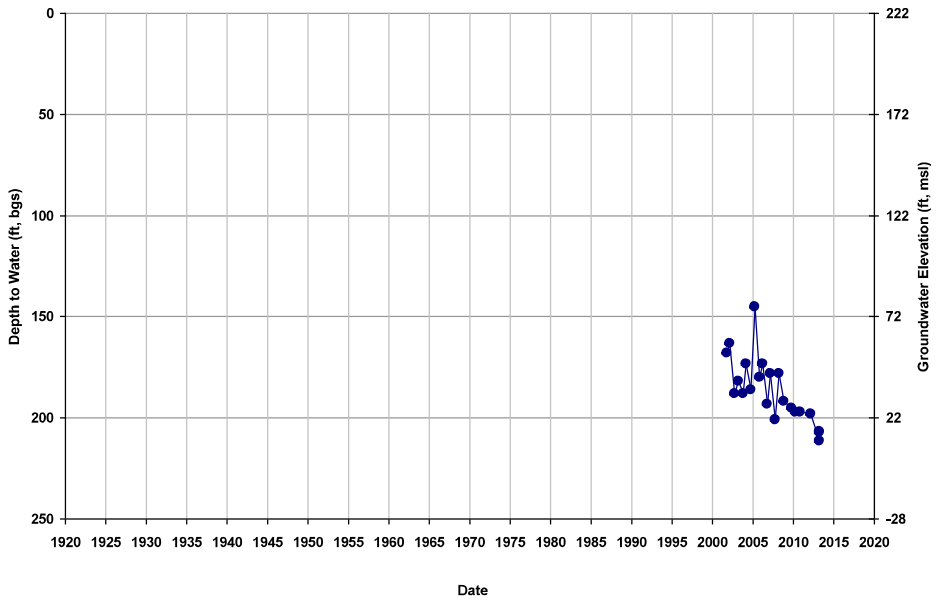
Well ID: 09S15E34J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 211
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



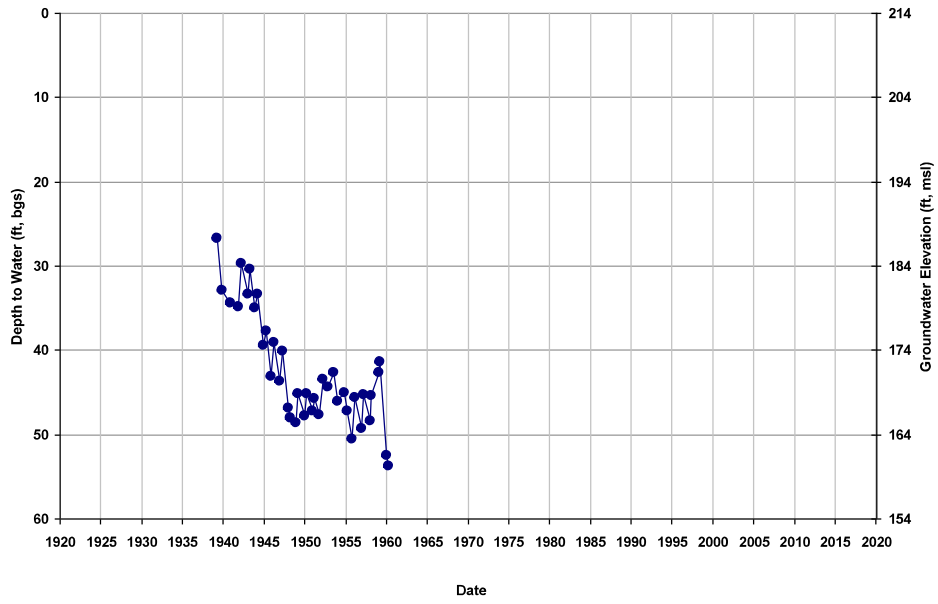
Well ID: 09S15E35C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 222
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



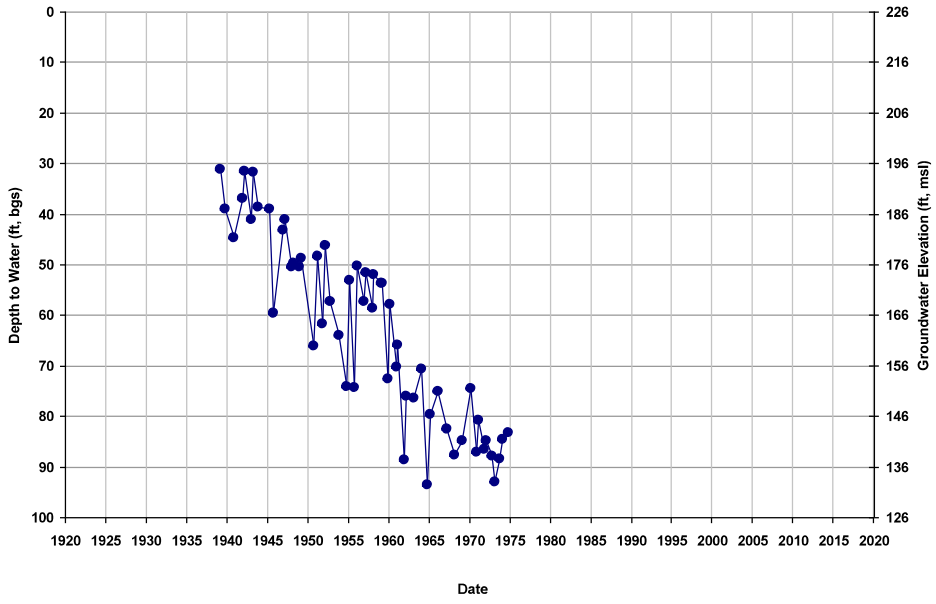
Well ID: 09S15E35M001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 213
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



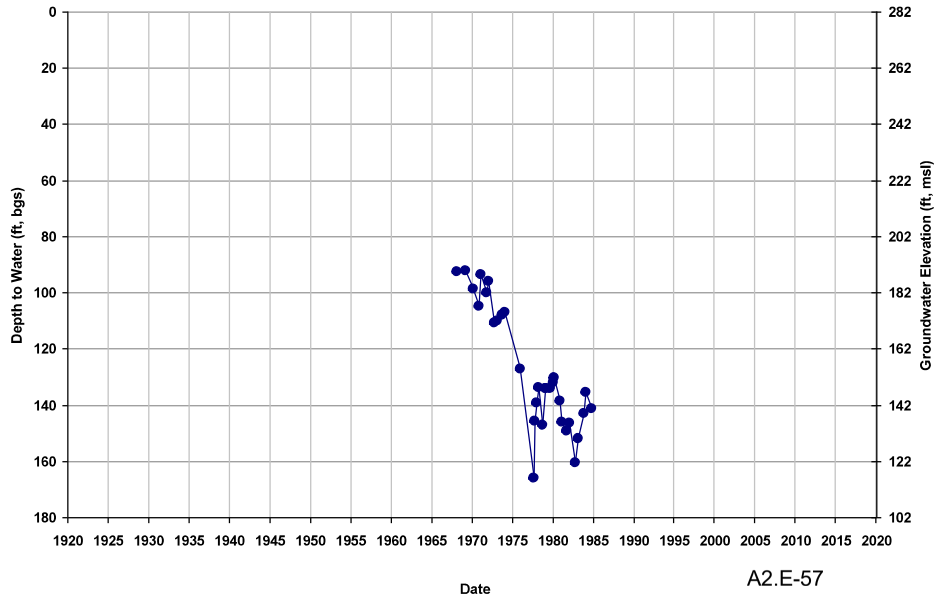
Well ID: 09S15E36L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 225
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



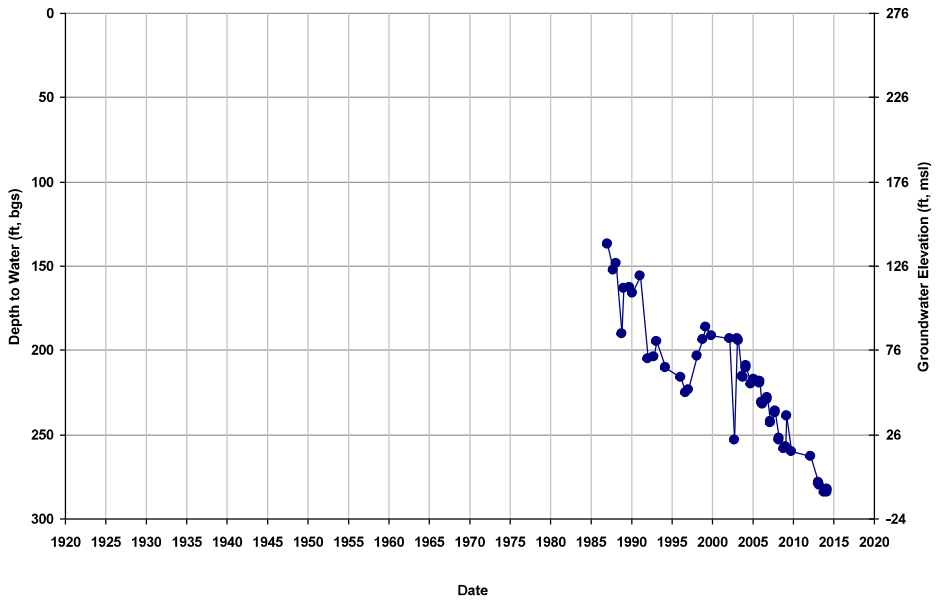
Well ID: 09S16E14M001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 282
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



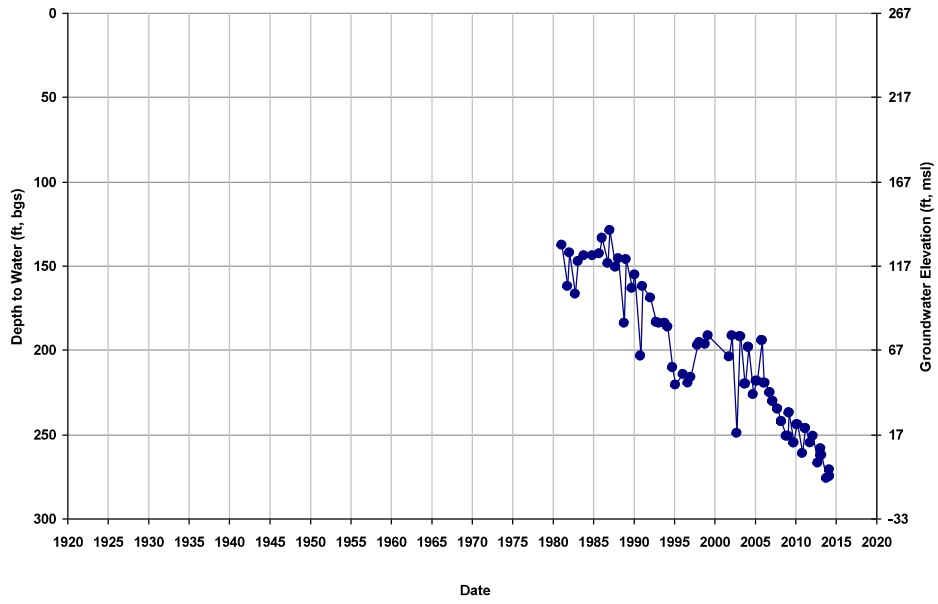
Well ID: 09S16E15B001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 276
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



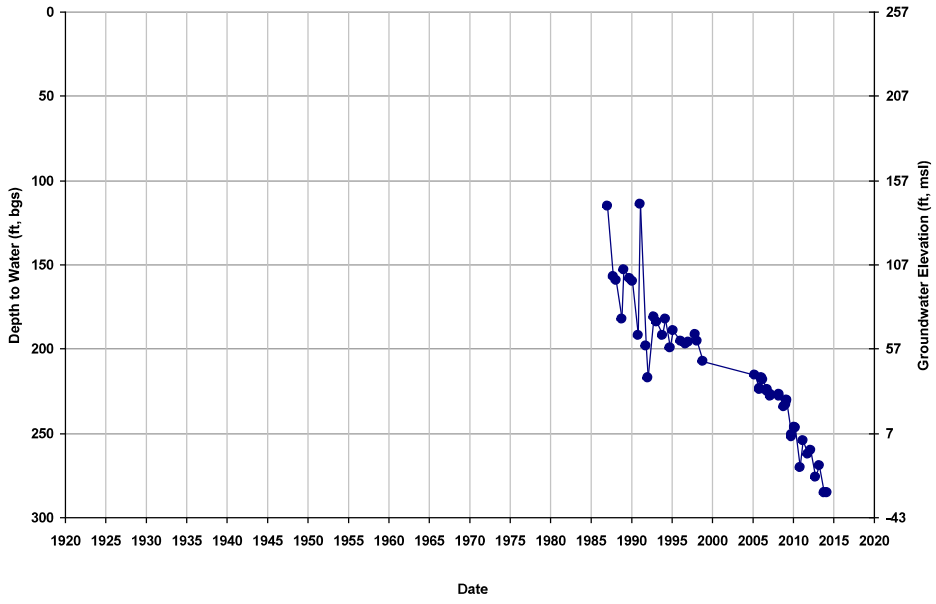
Well ID: 09S16E15Q001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 267
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



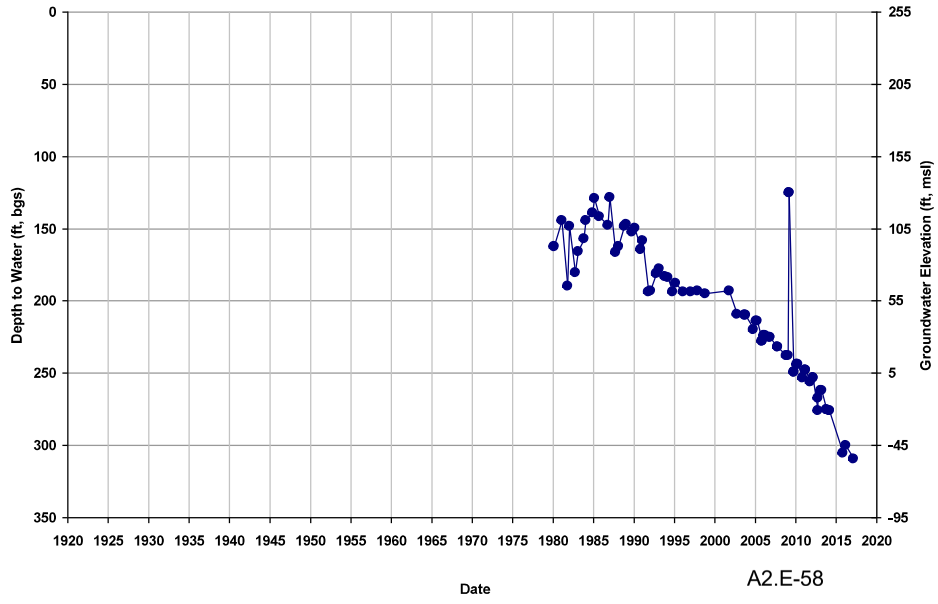
Well ID: 09S16E16D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 257
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



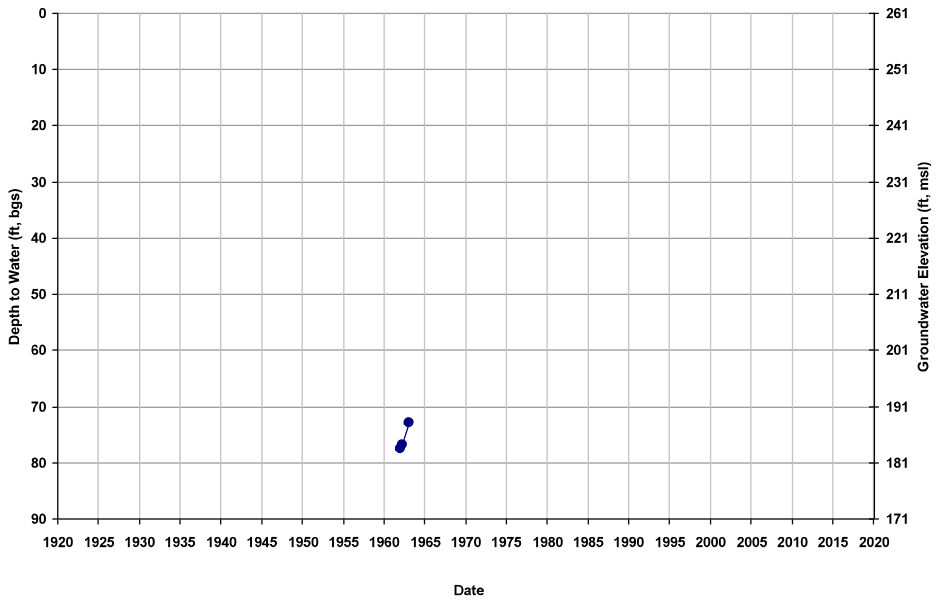
Well ID: 09S16E16N001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 255
Total Depth (ft): 466
Perf Top (ft): 218
Perf Bottom (ft): 464



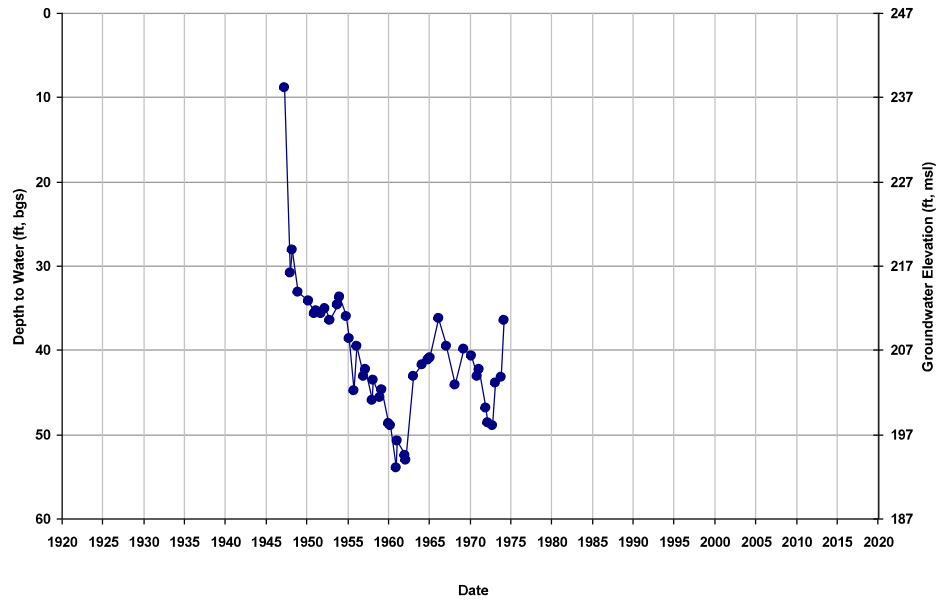
Well ID: 09S16E16Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 261
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



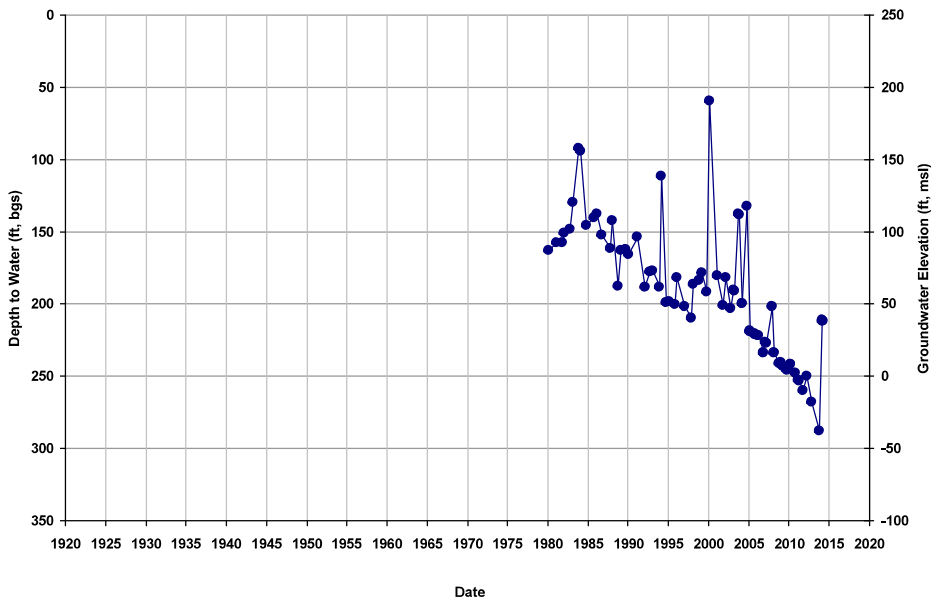
Well ID: 09S16E17D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 247
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



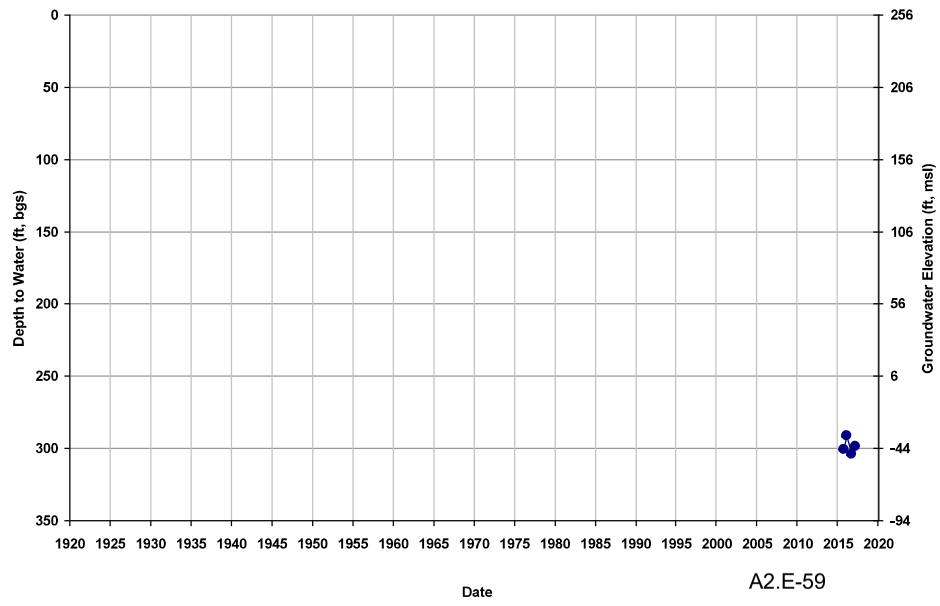
Well ID: 09S16E17F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 249
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



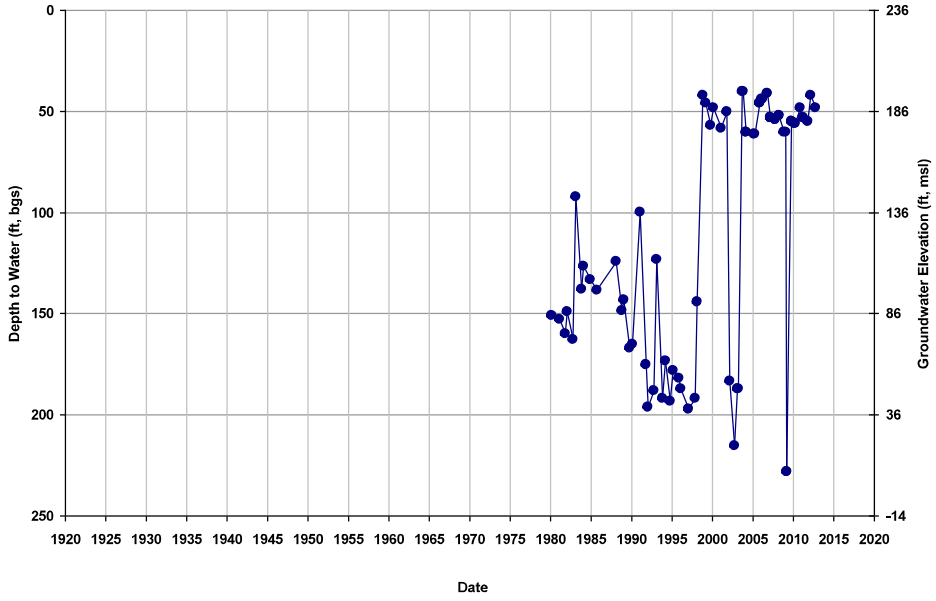
Well ID: 09S16E18A
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 256
Total Depth (ft): 800
Perf Top (ft): 320
Perf Bottom (ft): 762



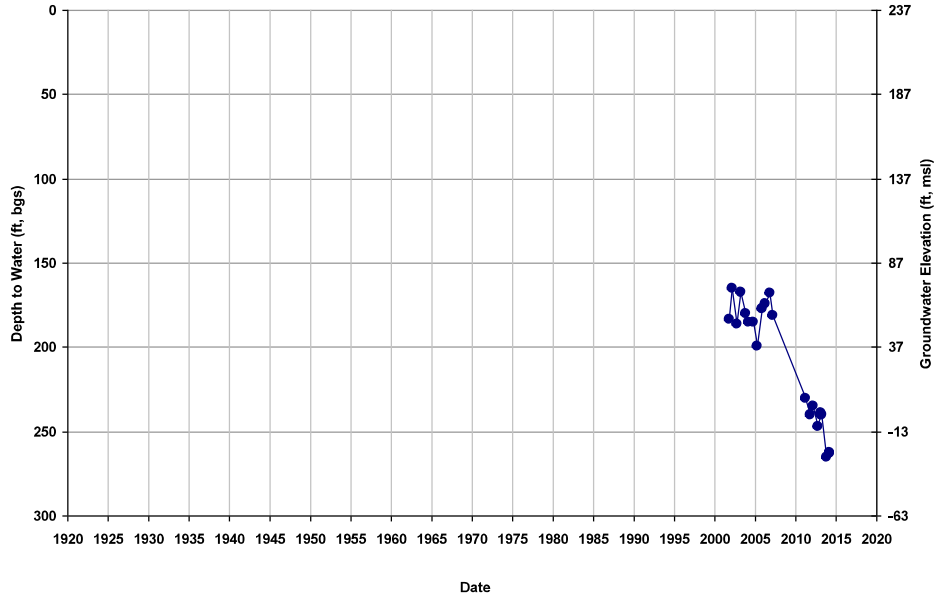
Well ID: 09S16E18M001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 236
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



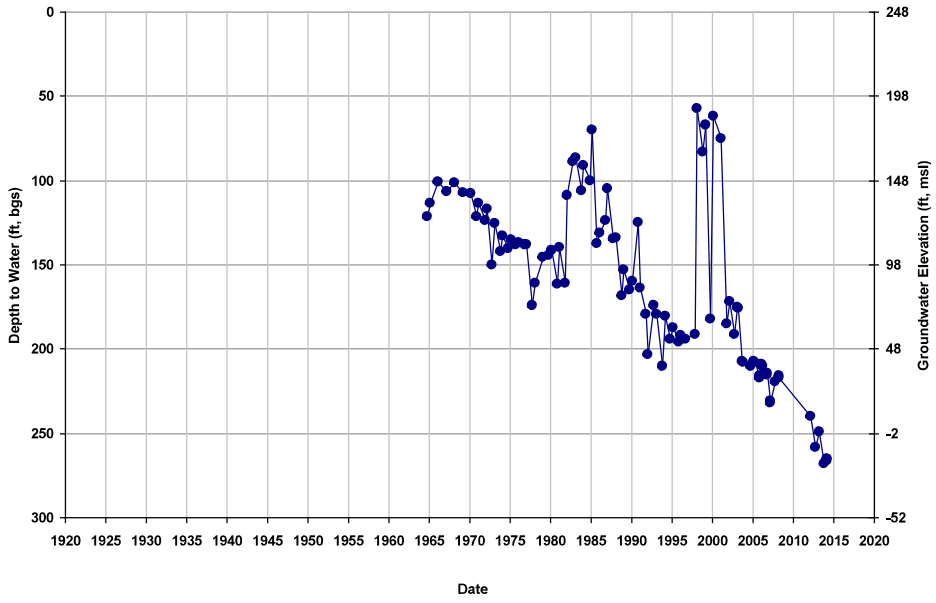
Well ID: 09S16E19D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 237
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



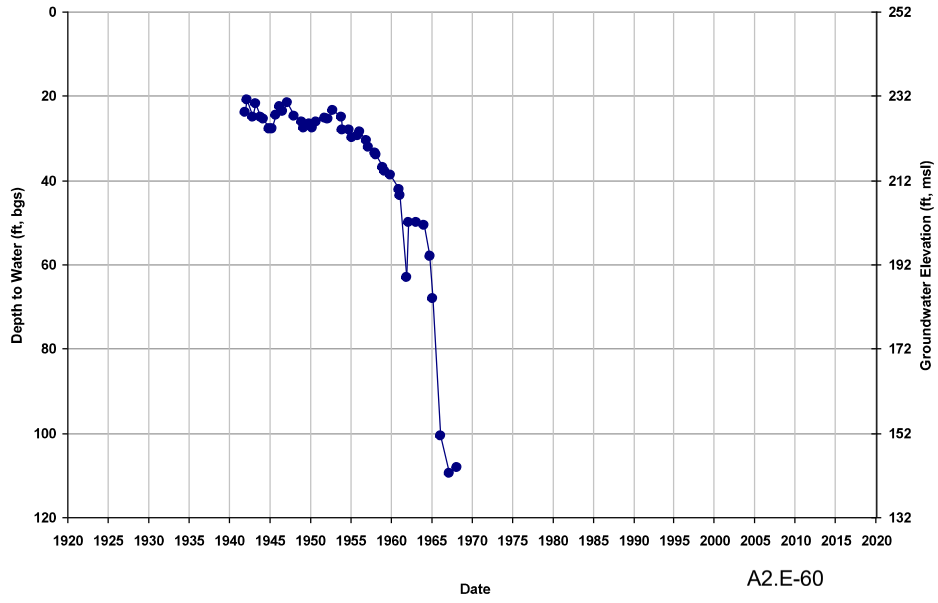
Well ID: 09S16E20E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 248
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



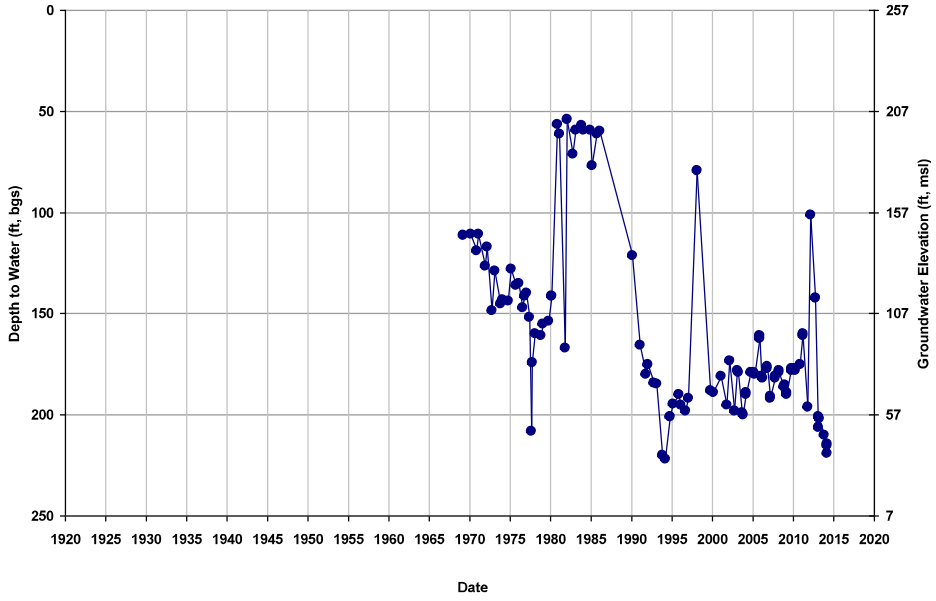
Well ID: 09S16E20P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 252
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



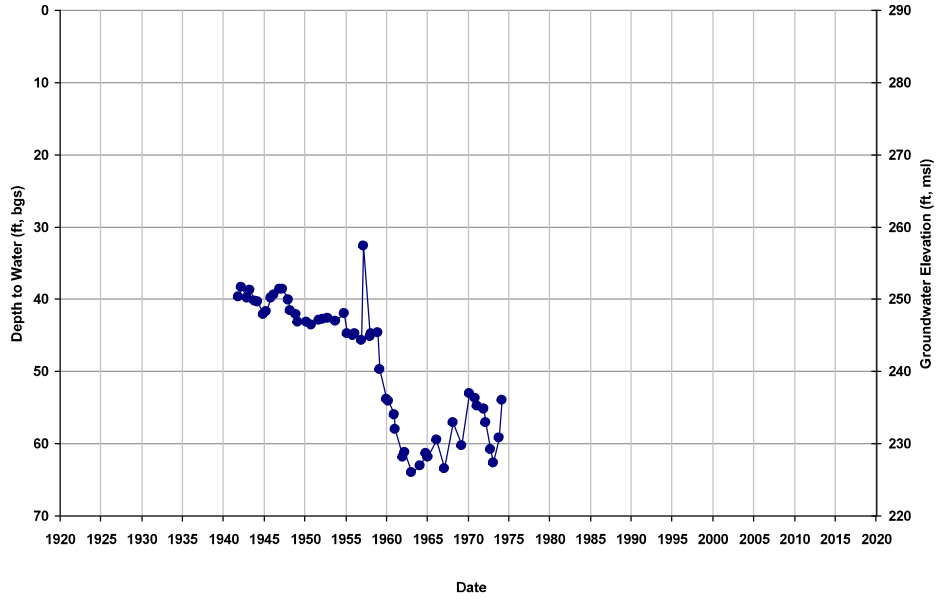
Well ID: 09S16E20P002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 257
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



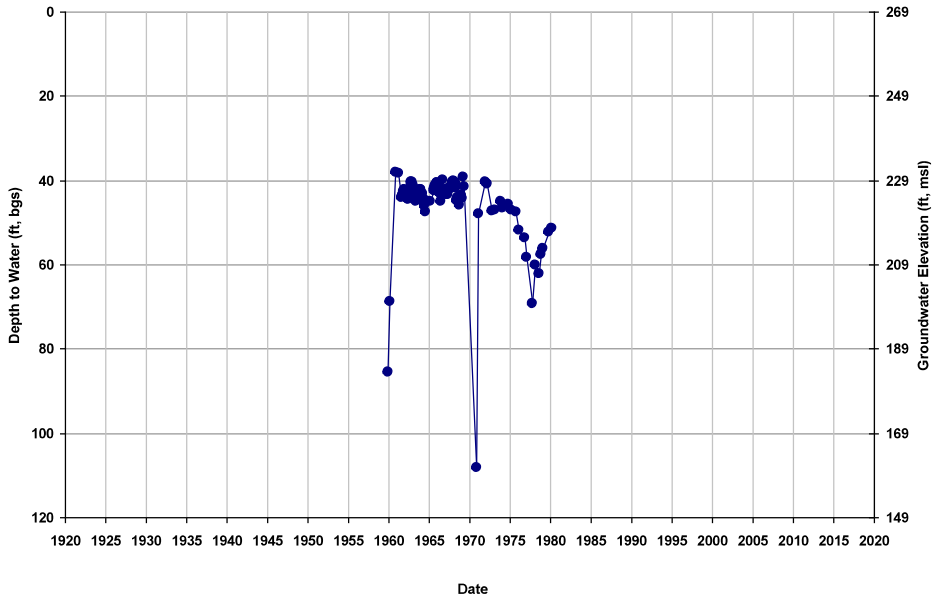
Well ID: 09S16E22H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 290
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



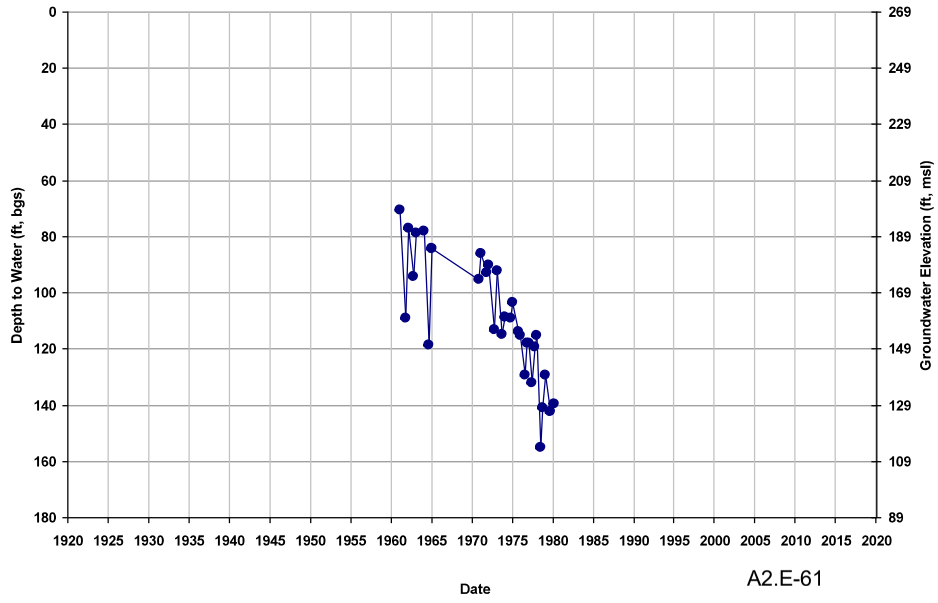
Well ID: 09S16E22R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 269
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



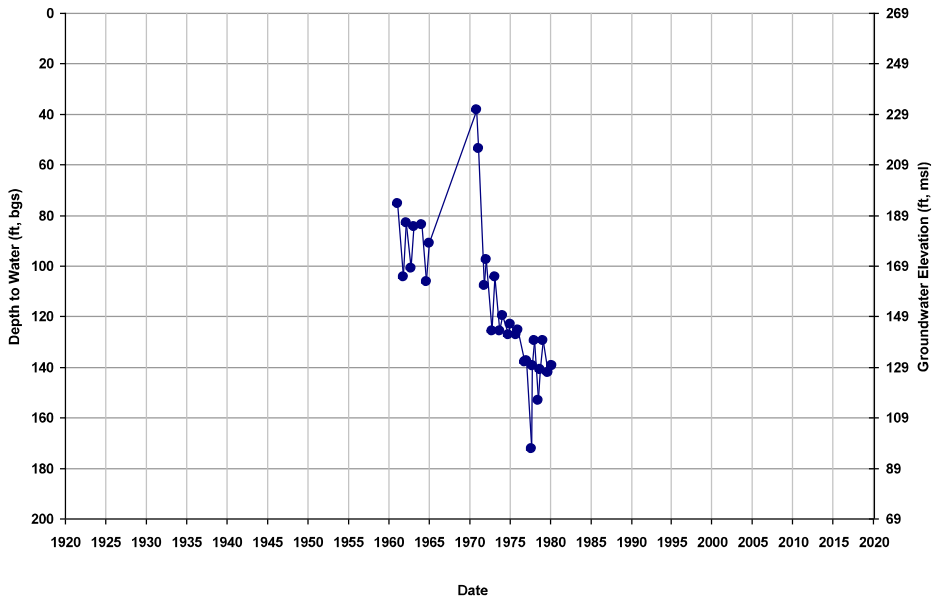
Well ID: 09S16E22R002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 269
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



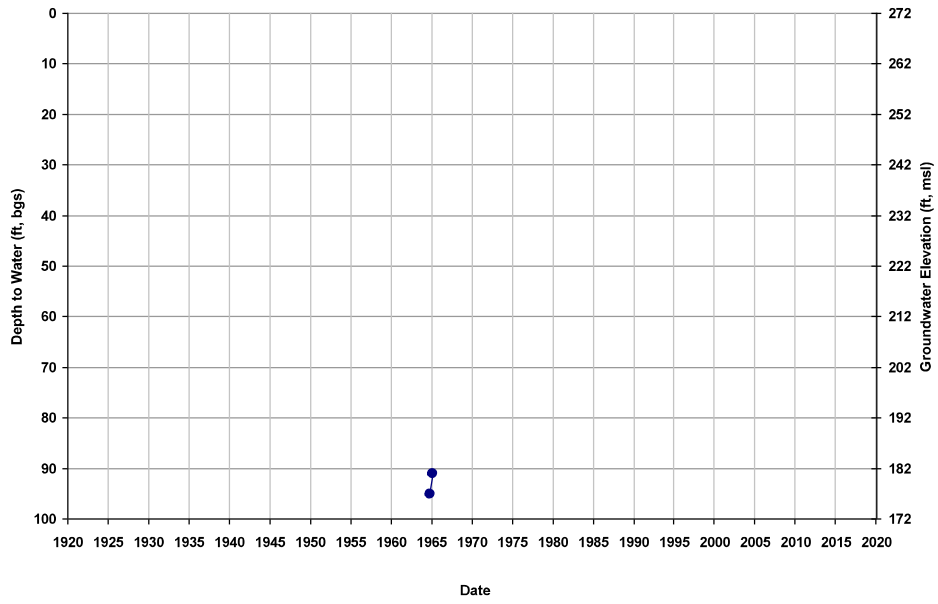
Well ID: 09S16E22R003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 269
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



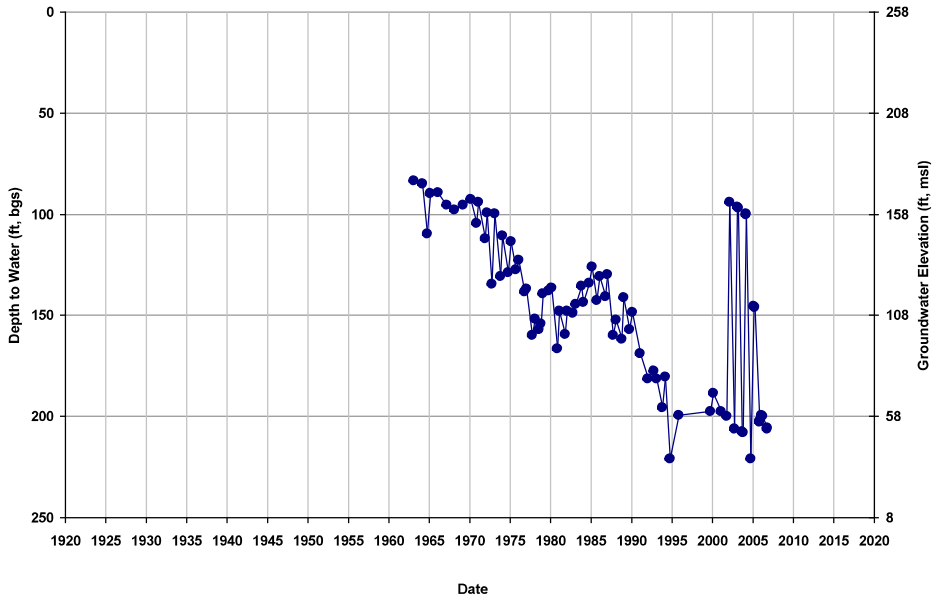
Well ID: 09S16E26E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 272
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



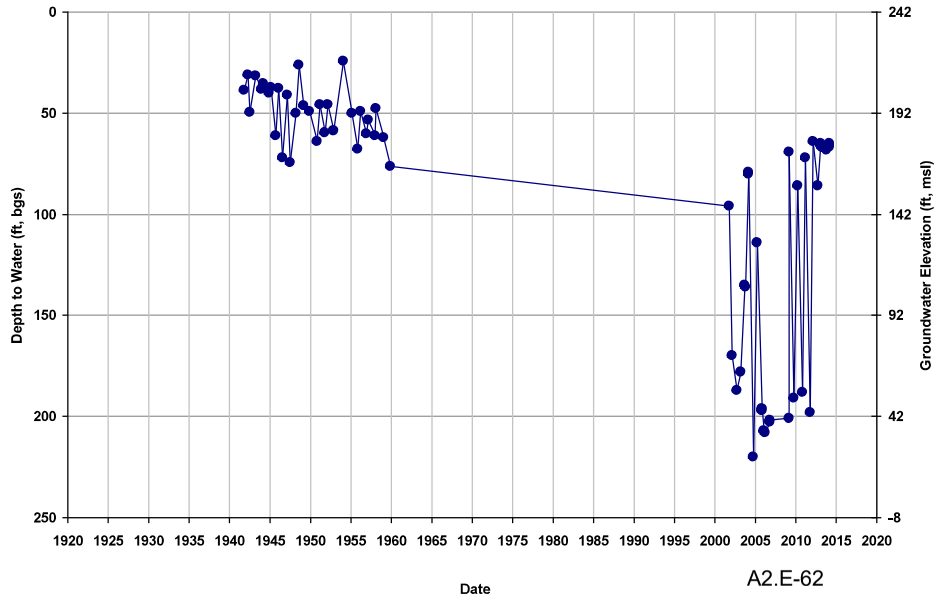
Well ID: 09S16E28A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 258
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



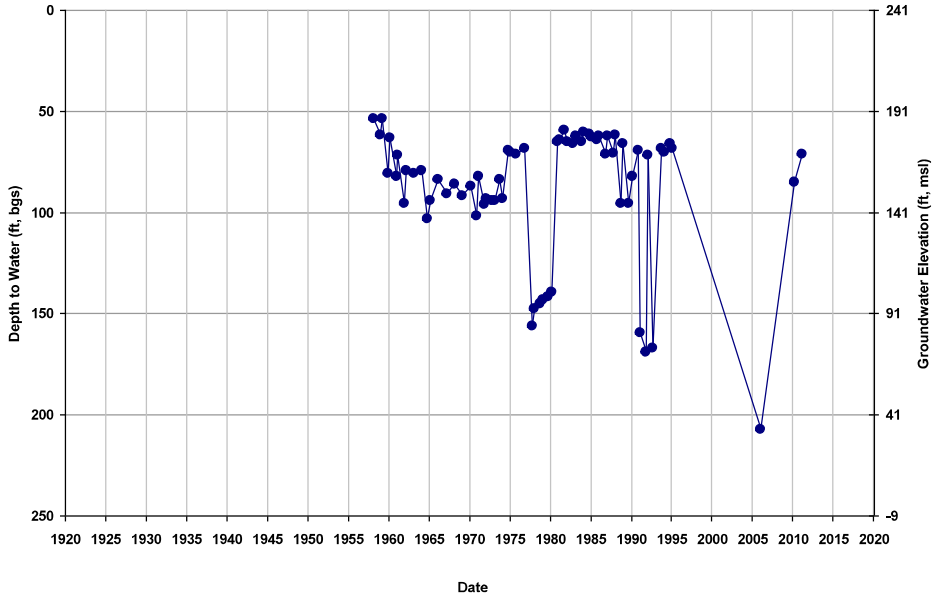
Well ID: 09S16E29Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 242
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



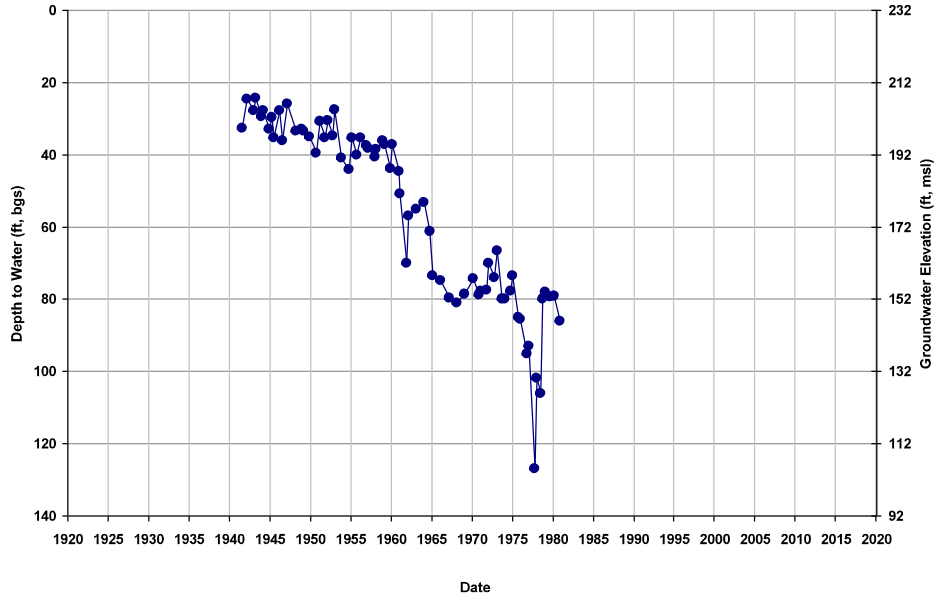
Well ID: 09S16E29Q002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 241
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



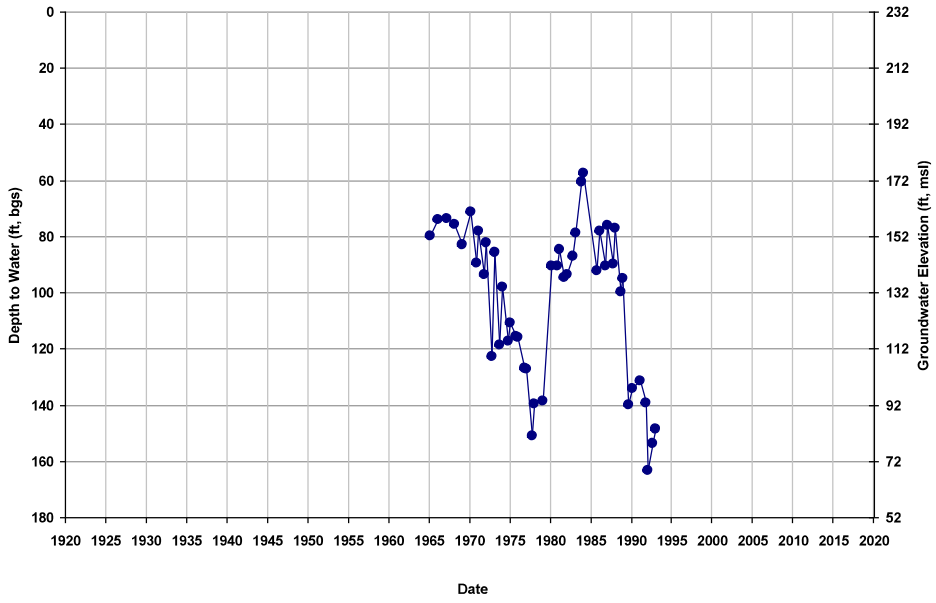
Well ID: 09S16E31L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 232
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



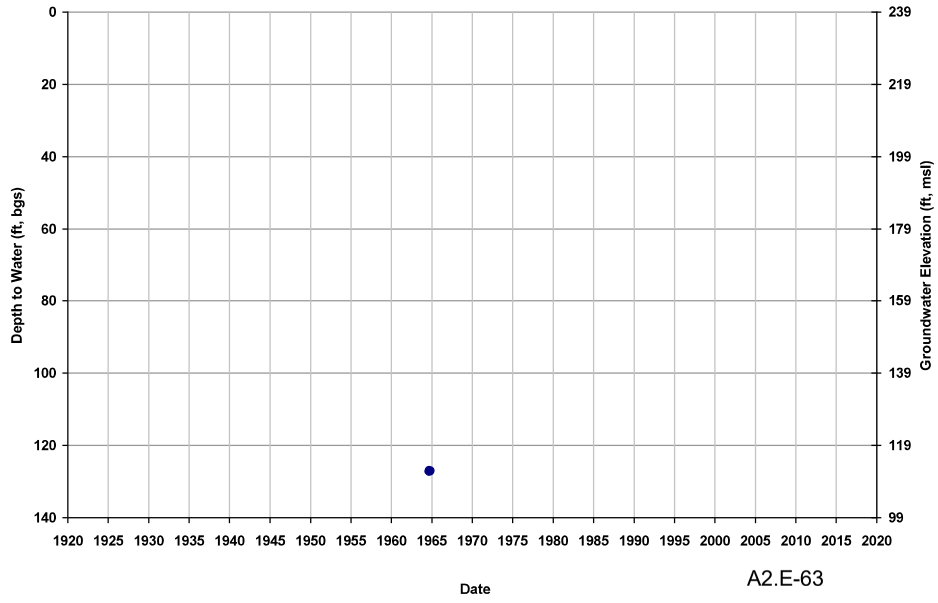
Well ID: 09S16E31P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 232
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



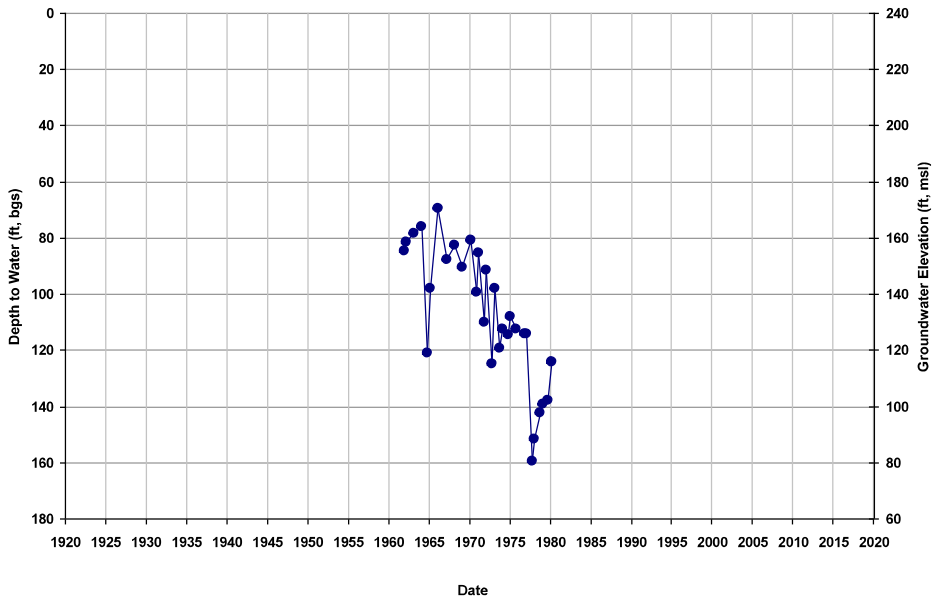
Well ID: 09S16E32C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 239
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



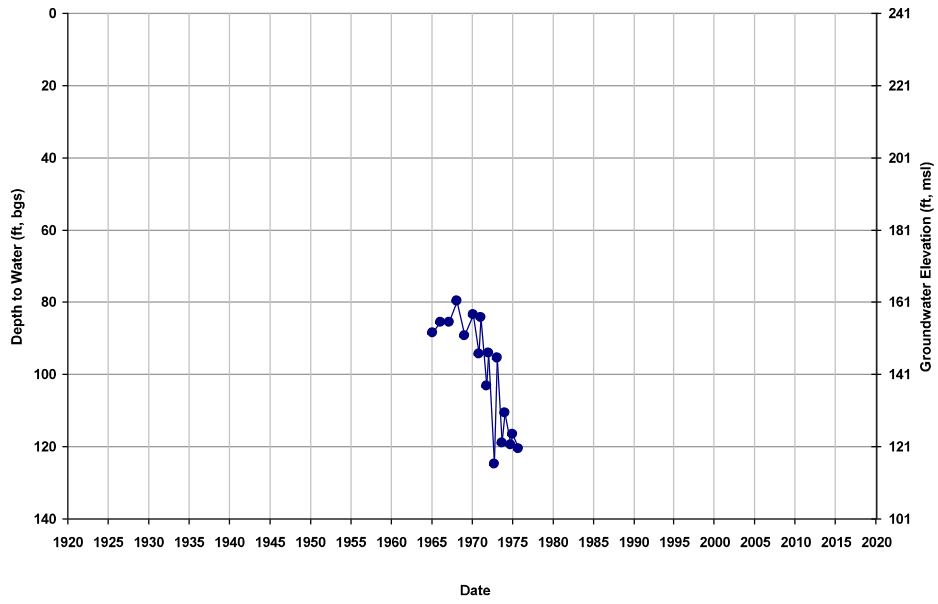
Well ID: 09S16E32F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 240
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



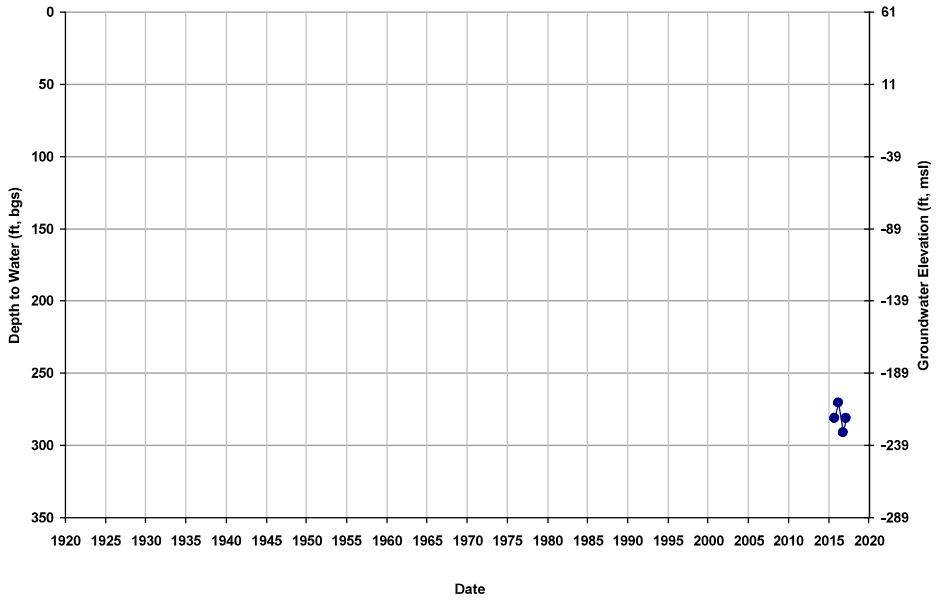
Well ID: 09S16E32L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 241
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



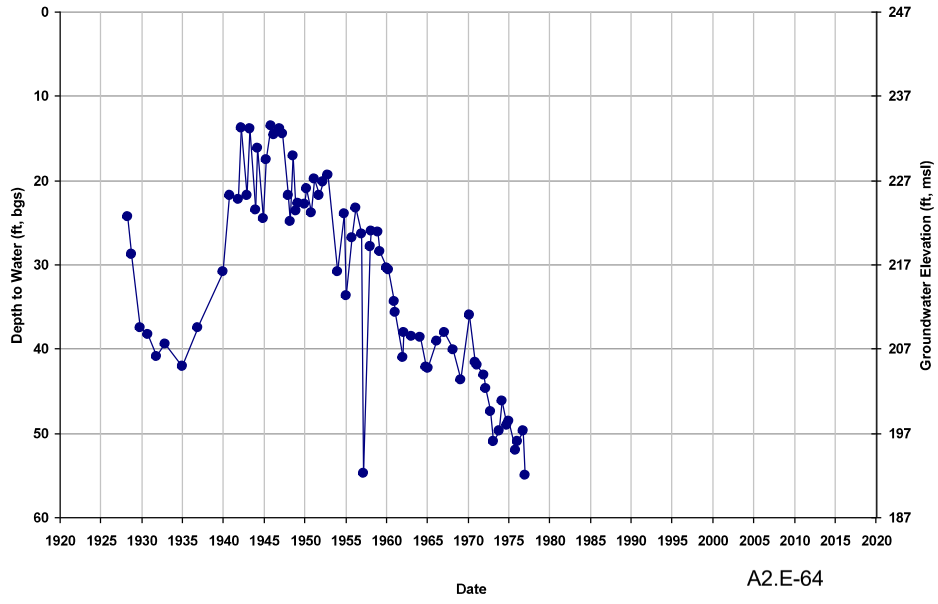
Well ID: 09S16E32Q
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 61
Total Depth (ft): 400
Perf Top (ft): 200
Perf Bottom (ft): 400



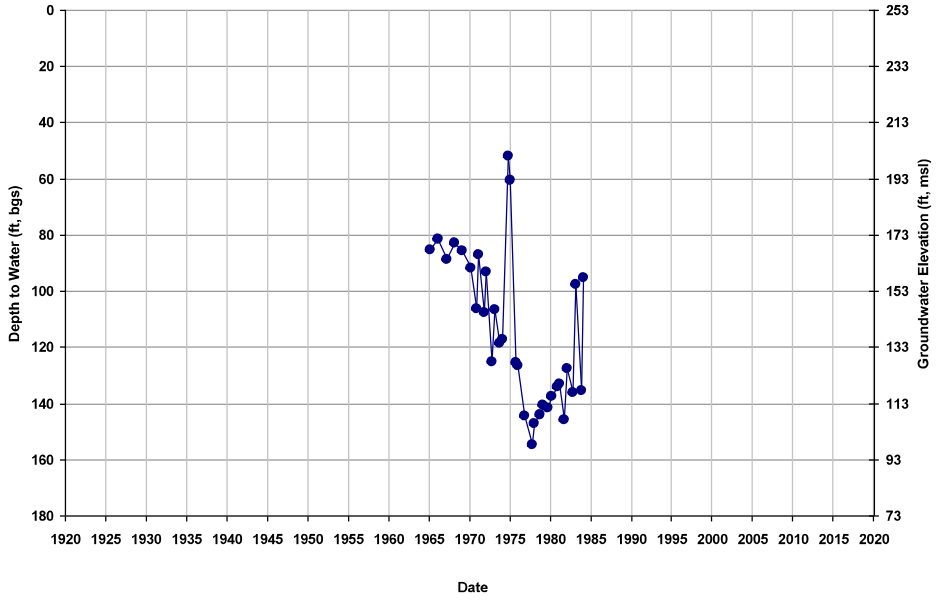
Well ID: 09S16E33E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 246
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



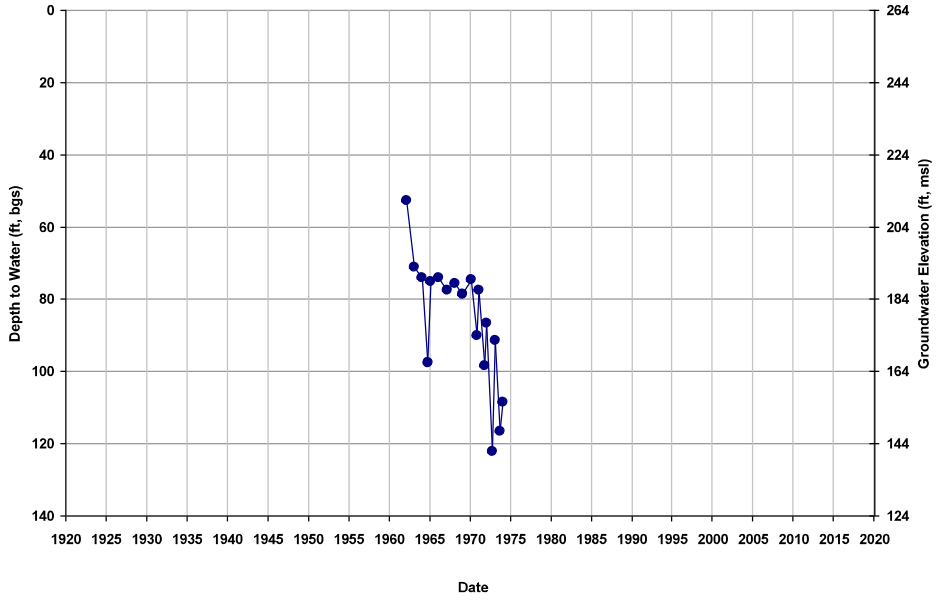
Well ID: 09S16E33F002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 253
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



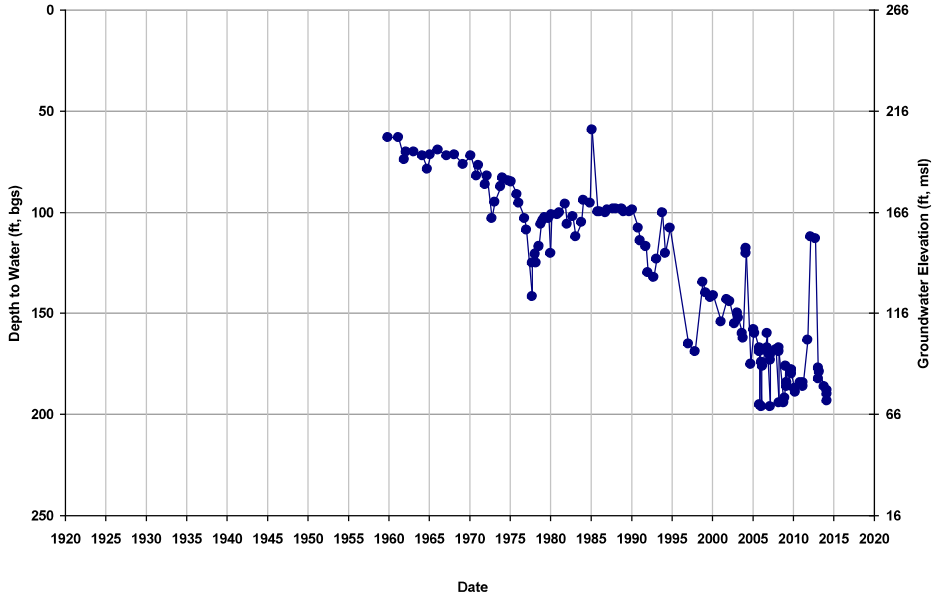
Well ID: 09S16E34A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 264
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



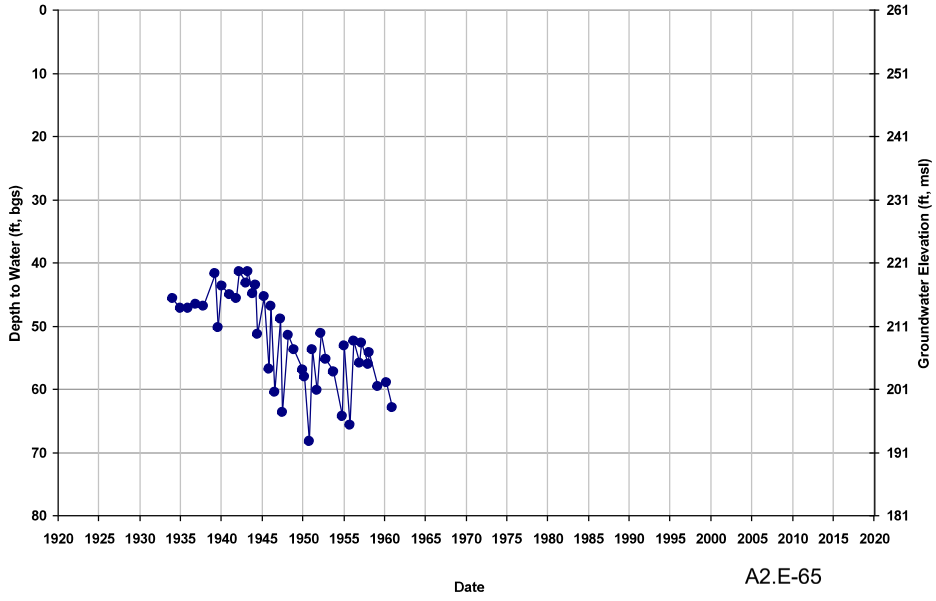
Well ID: 09S16E34J001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 266
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



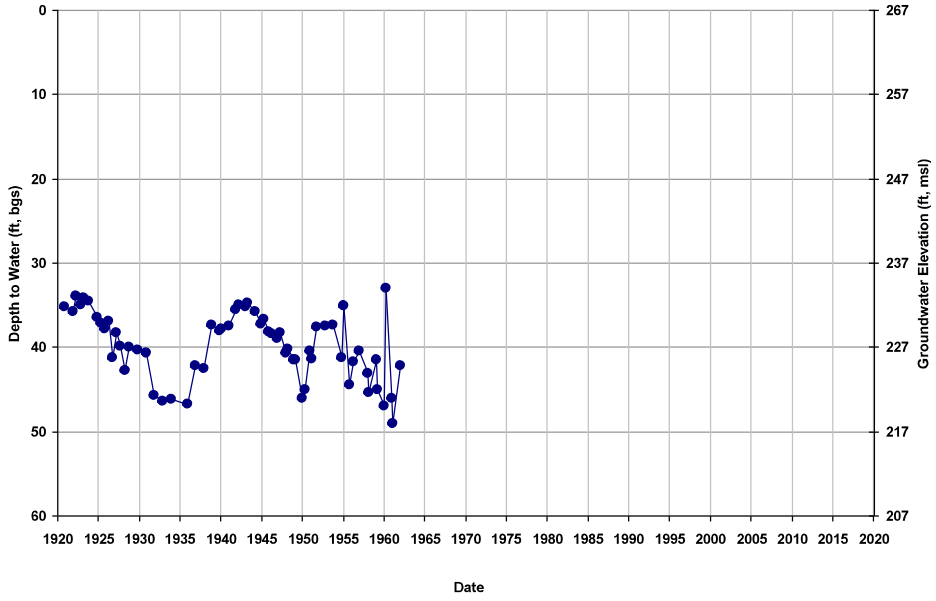
Well ID: 09S16E34R001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 261
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



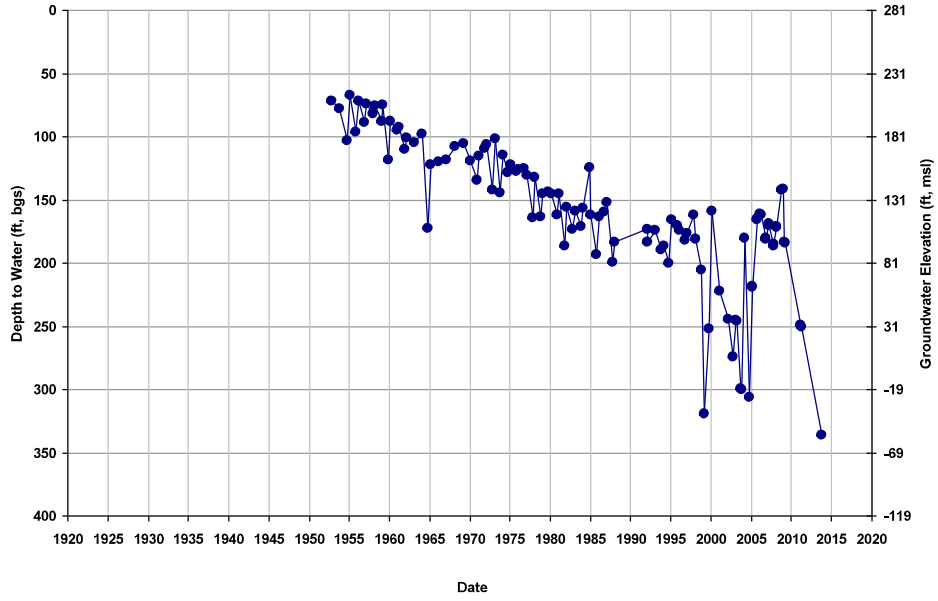
Well ID: 09S16E35D001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 267
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



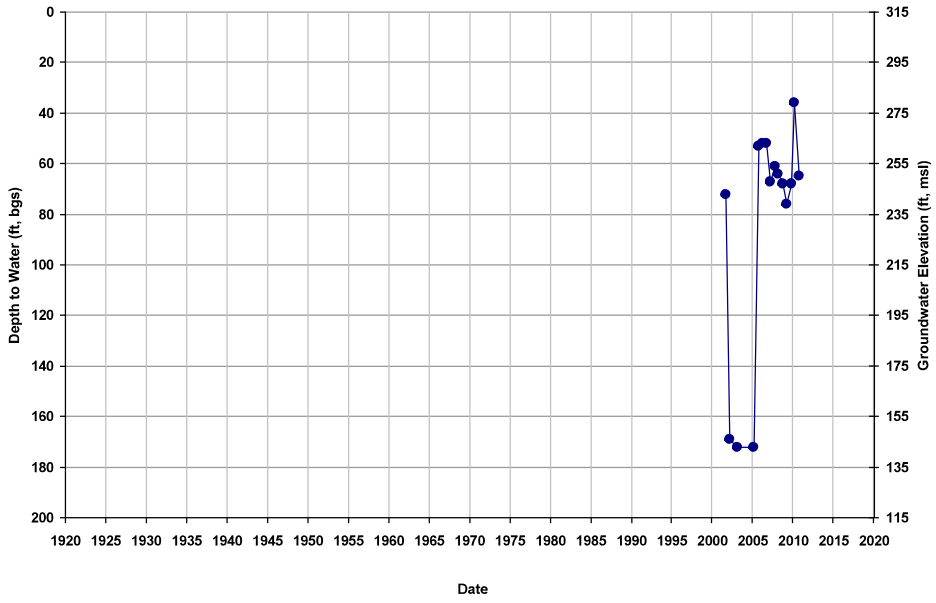
Well ID: 09S16E36J001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 281
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



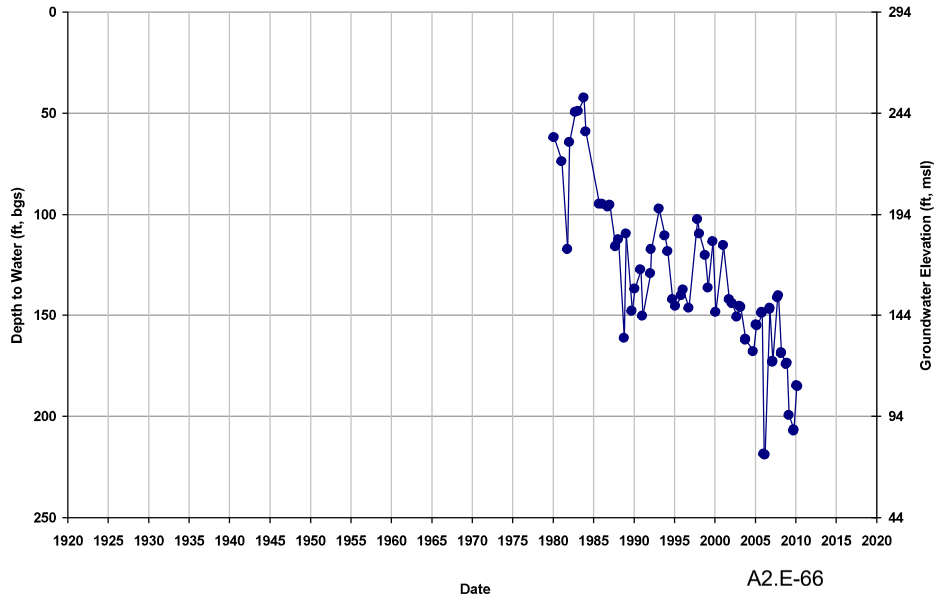
Well ID: 09S17E08F001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 315
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



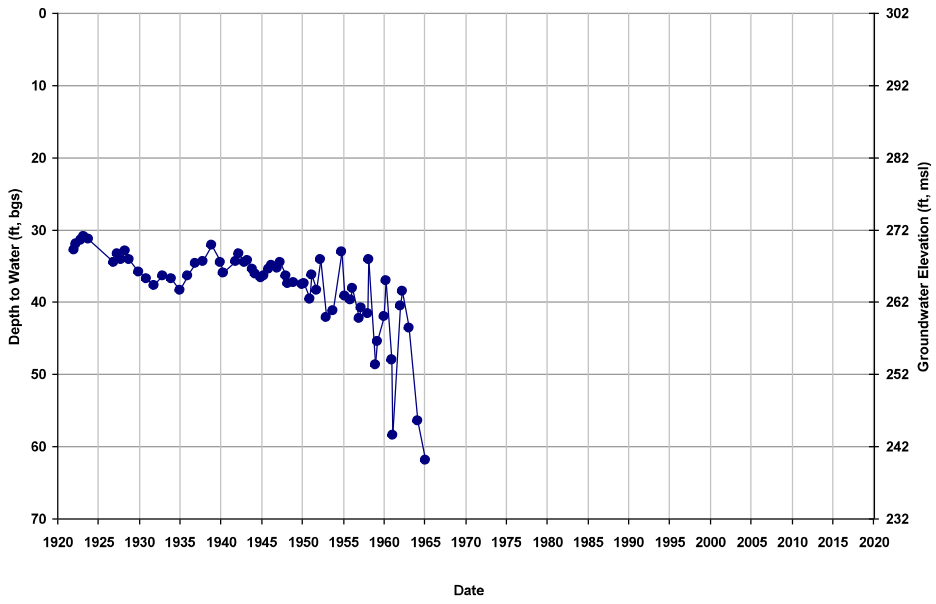
Well ID: 09S17E17F001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 294
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



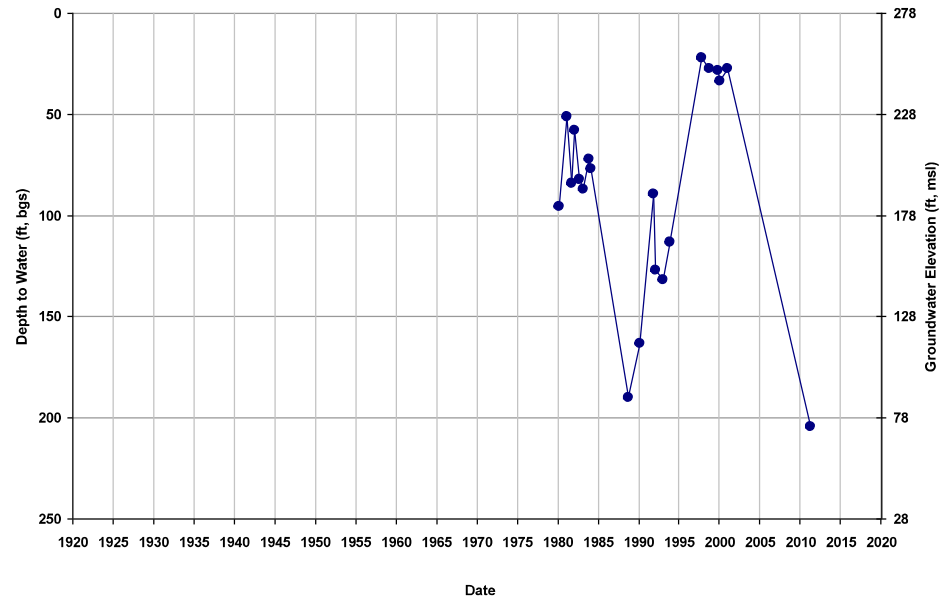
Well ID: 09S17E18D001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 302
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



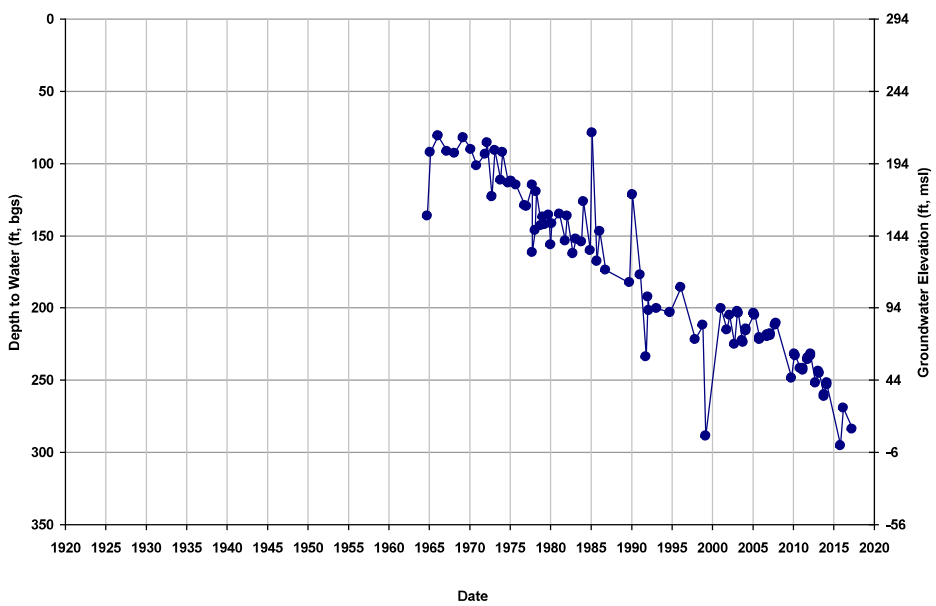
Well ID: 09S17E18N002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 278
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



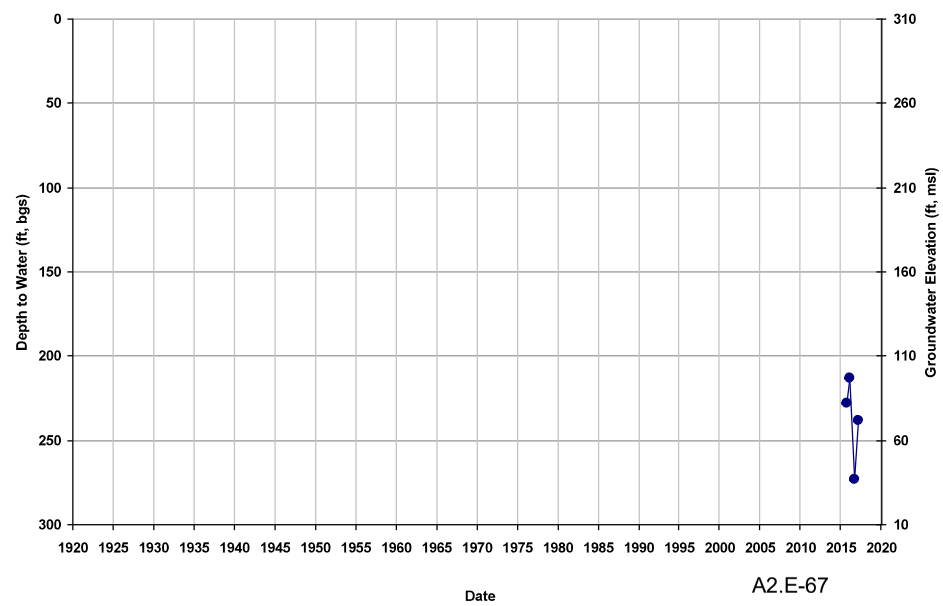
Well ID: 09S17E19L001M
Depth Zone: Lower; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 294
Total Depth (ft): 648
Perf Top (ft): 240
Perf Bottom (ft): 620



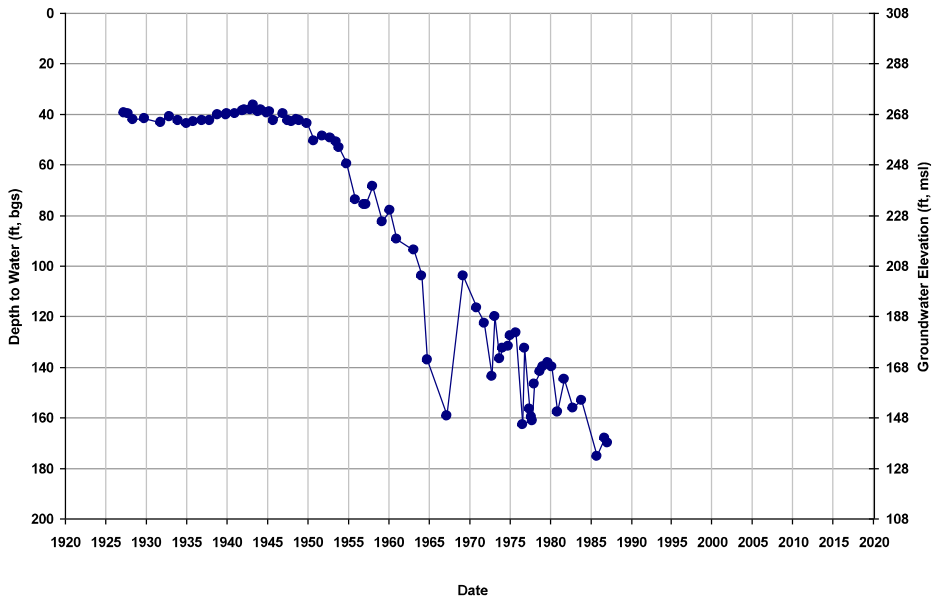
Well ID: 09S17E20C
Depth Zone: Lower; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 310
Total Depth (ft): 720
Perf Top (ft): 200
Perf Bottom (ft): 720



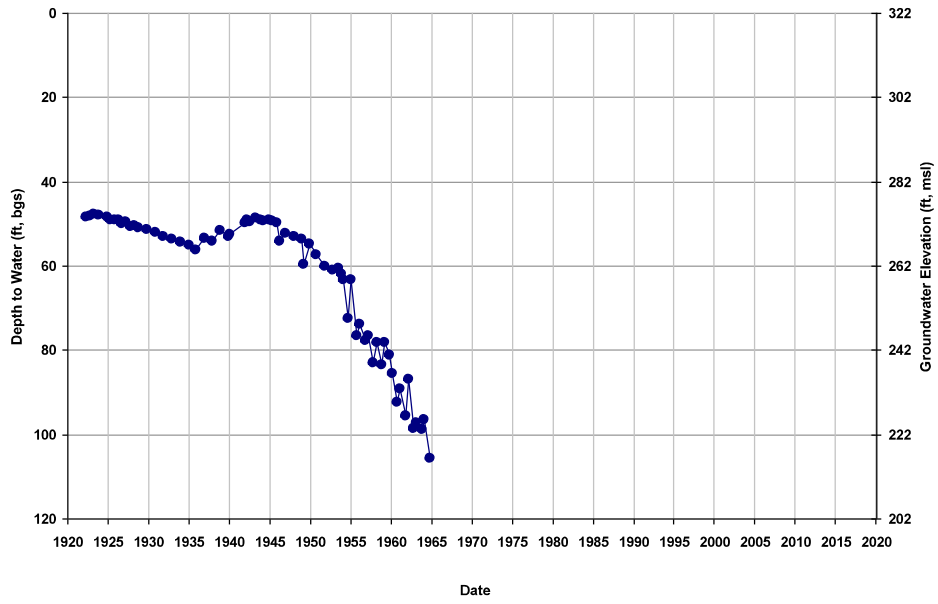
Well ID: 09S17E20L001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 308
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



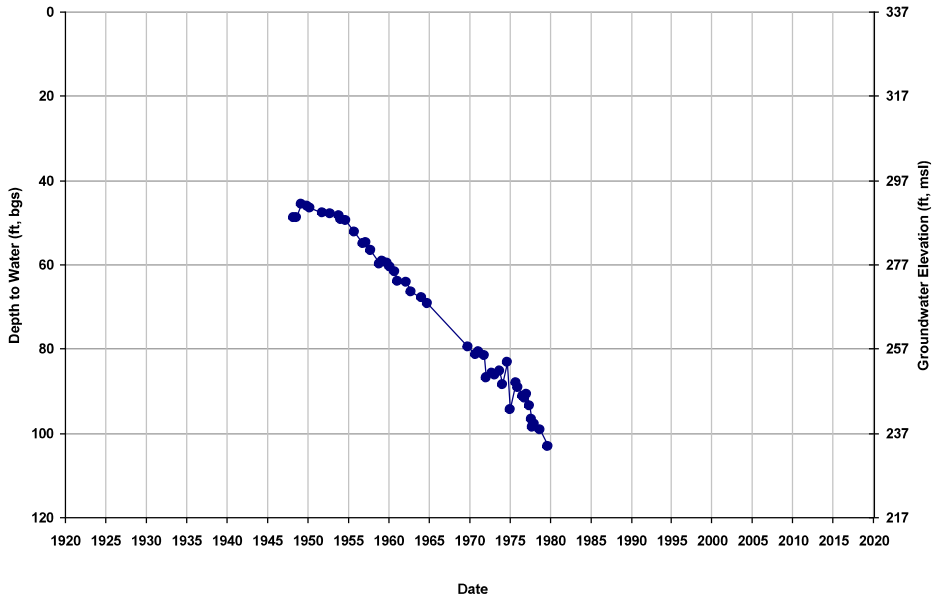
Well ID: 09S17E21L001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 322
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



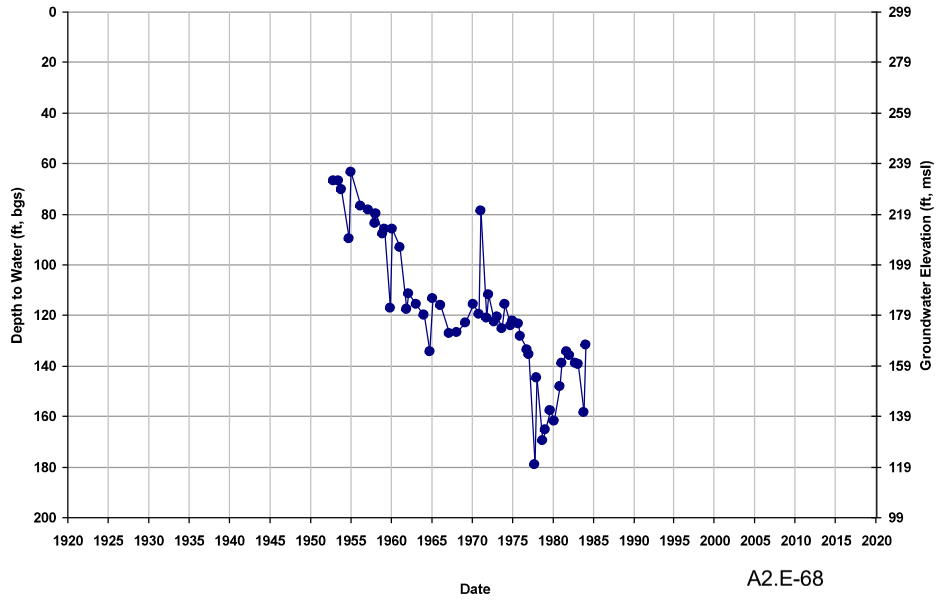
Well ID: 09S17E23F001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 337
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



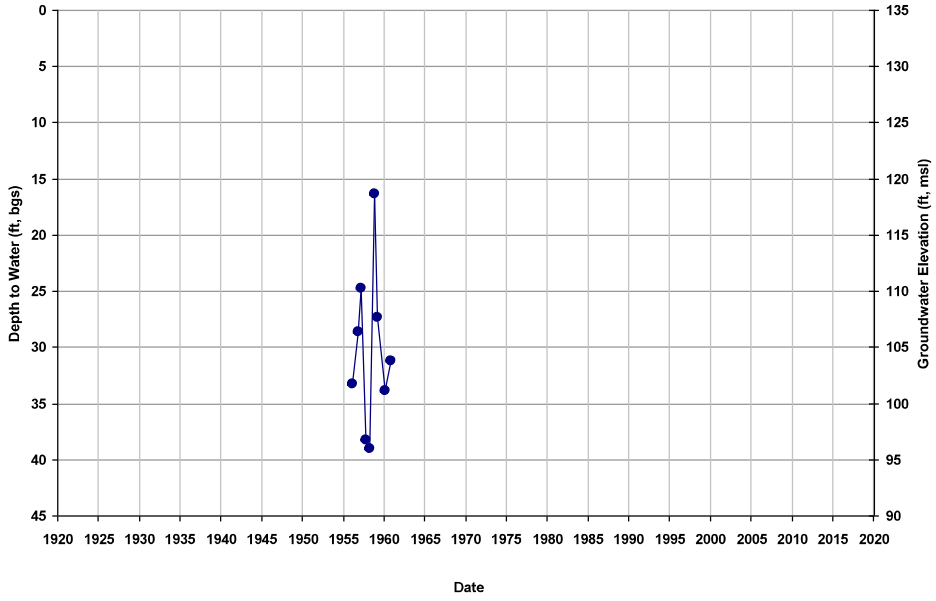
Well ID: 09S17E30H001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 299
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



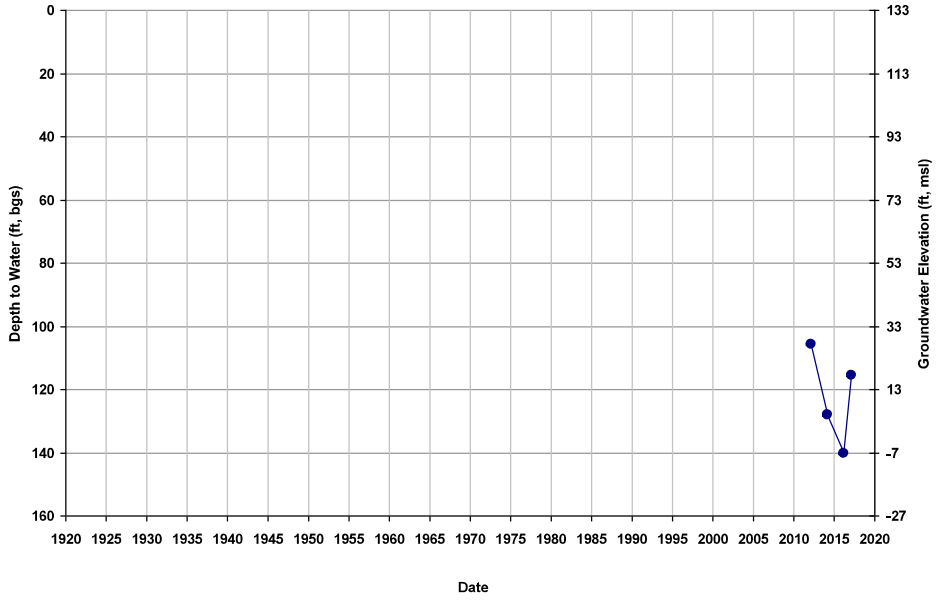
Well ID: 10S13E13A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



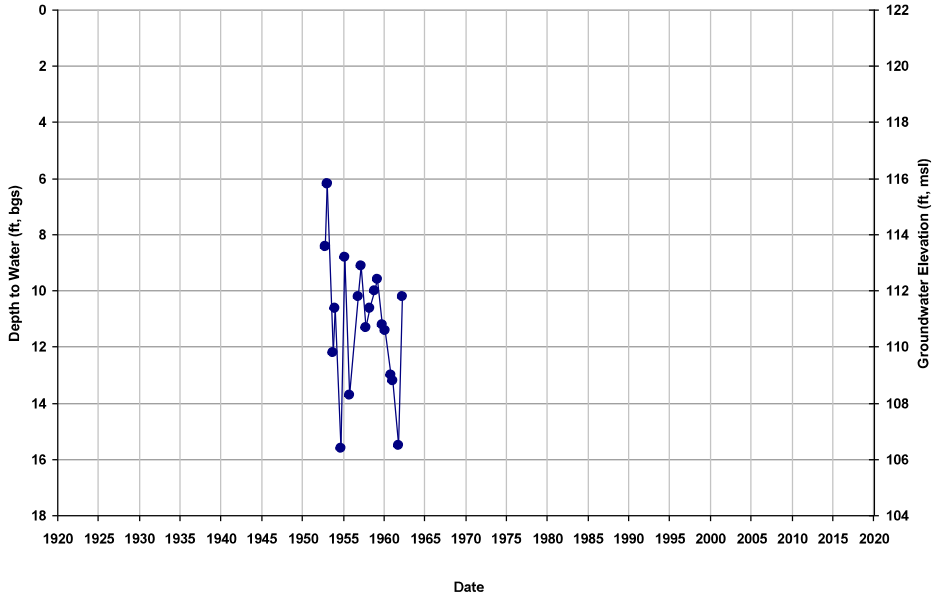
Well ID: 10S13E13J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



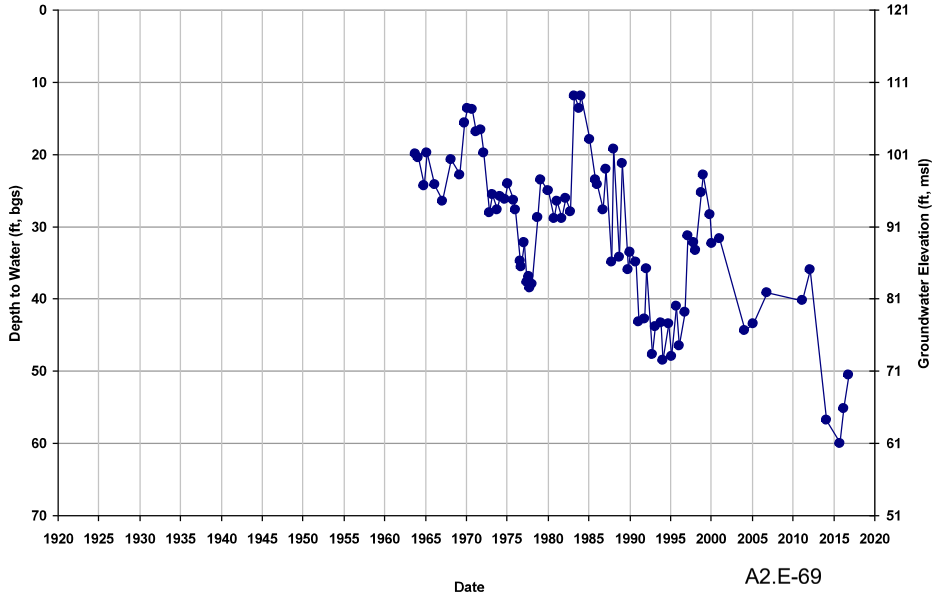
Well ID: 10S13E22Q002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 122
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



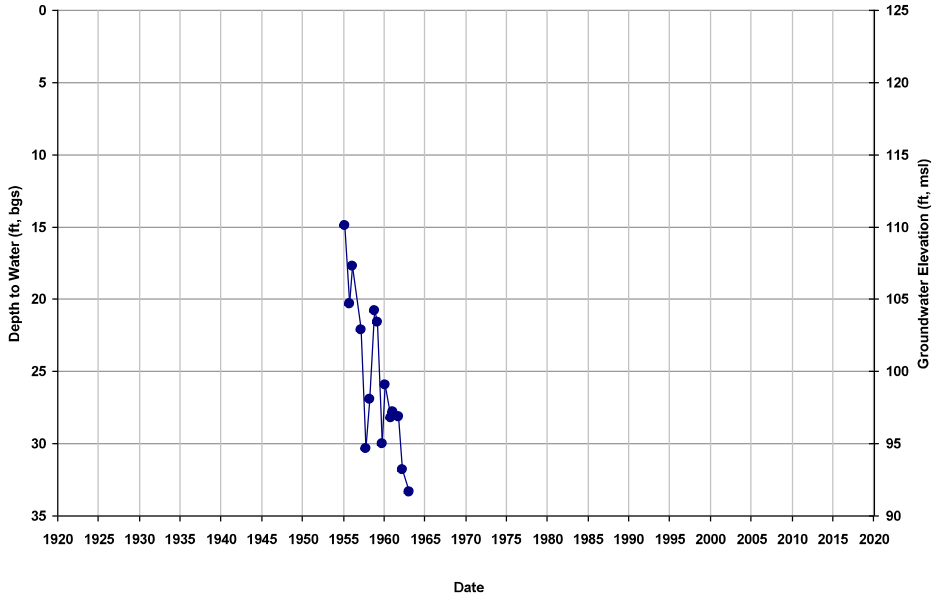
Well ID: 10S13E22R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 121
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



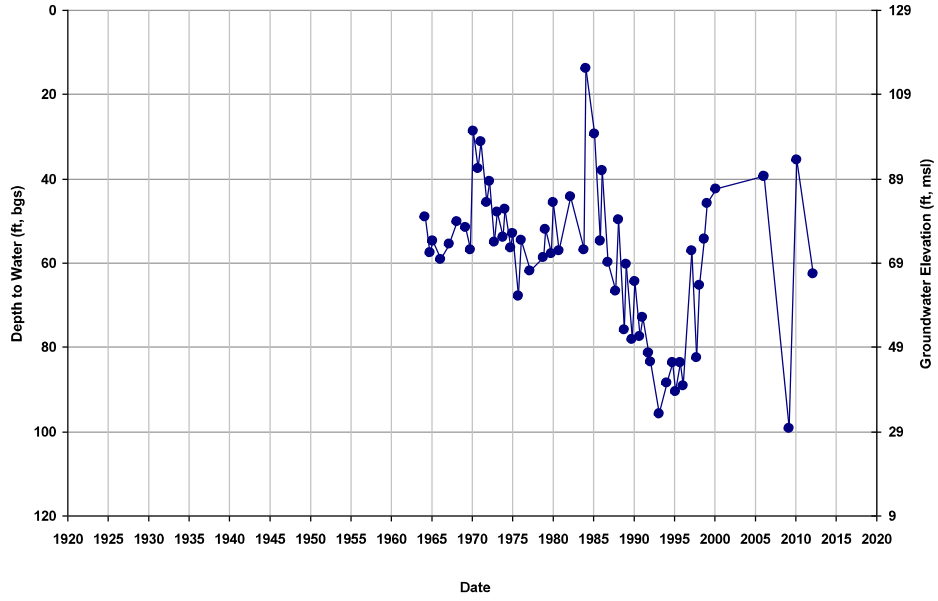
Well ID: 10S13E24E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 125
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



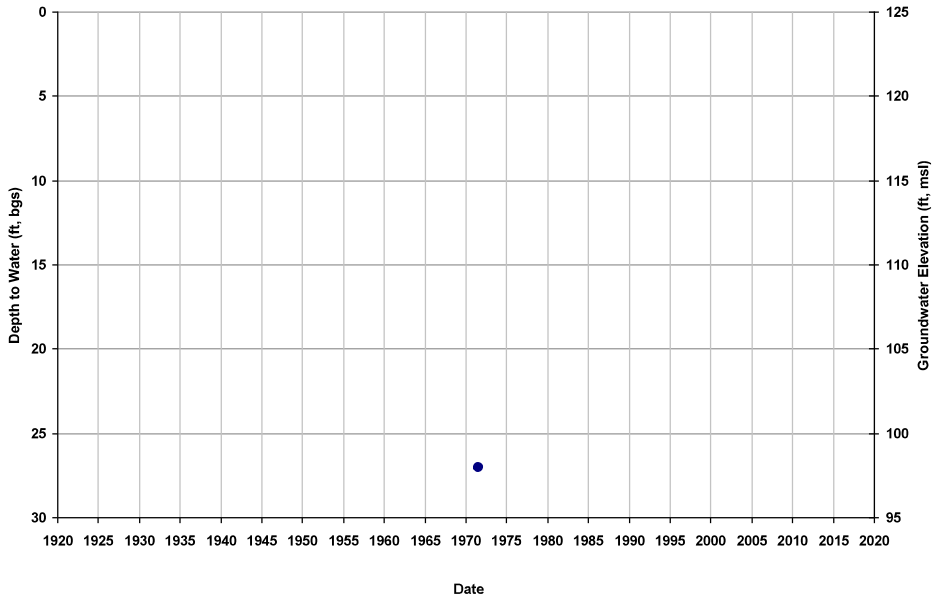
Well ID: 10S13E24L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 129
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



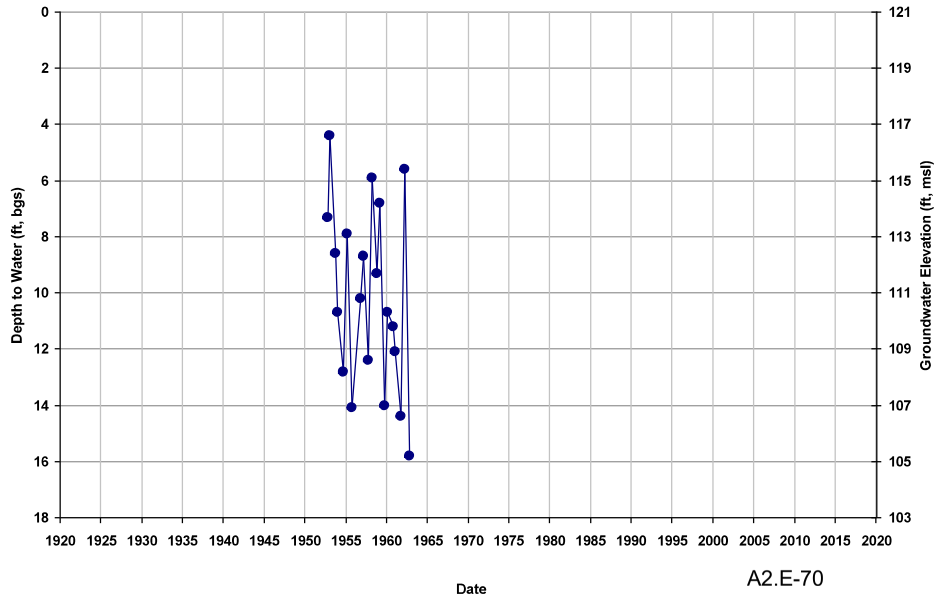
Well ID: 10S13E26J001M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 125
Total Depth (ft): 175
Perf Top (ft): NA
Perf Bottom (ft): NA



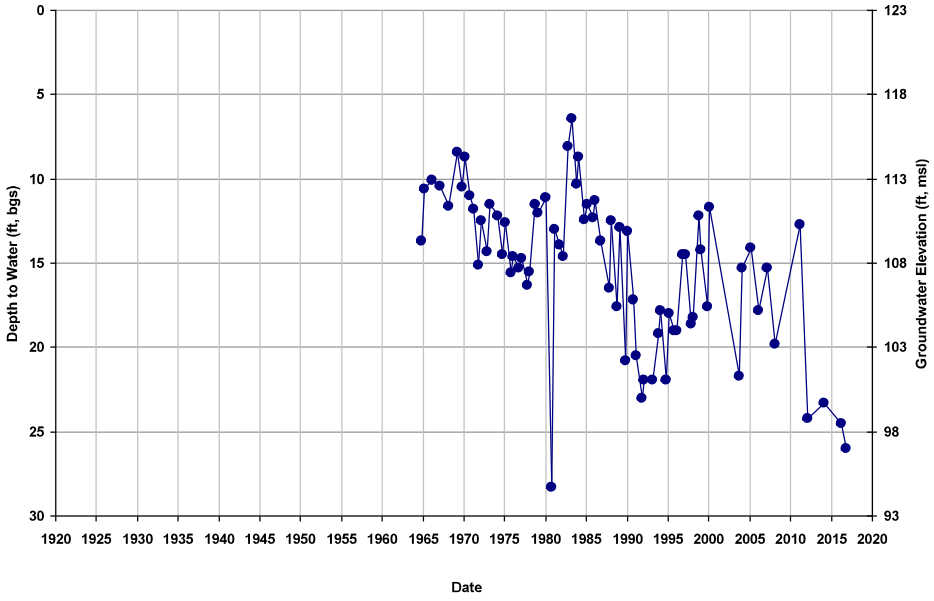
Well ID: 10S13E27R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 121
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



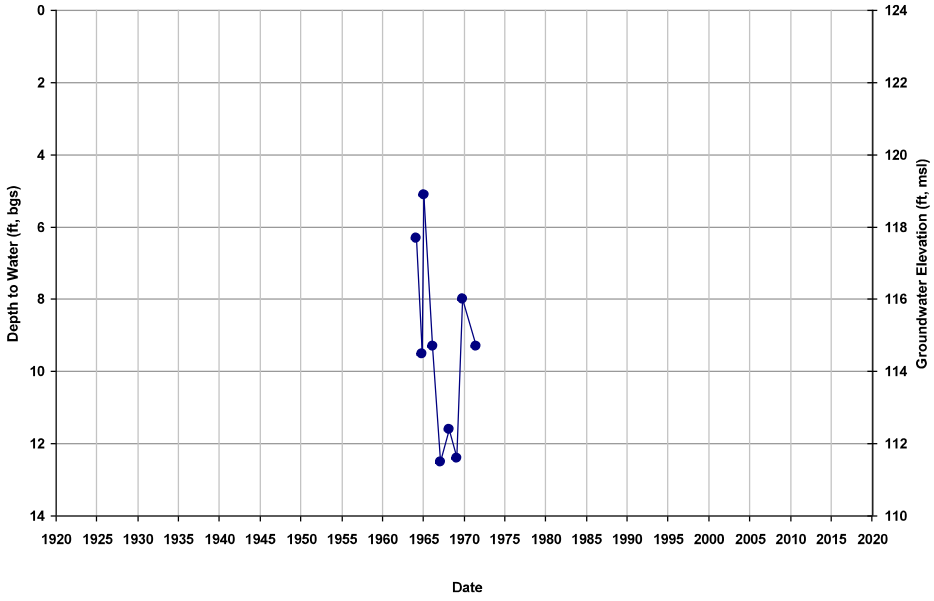
Well ID: 10S13E34G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 123
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



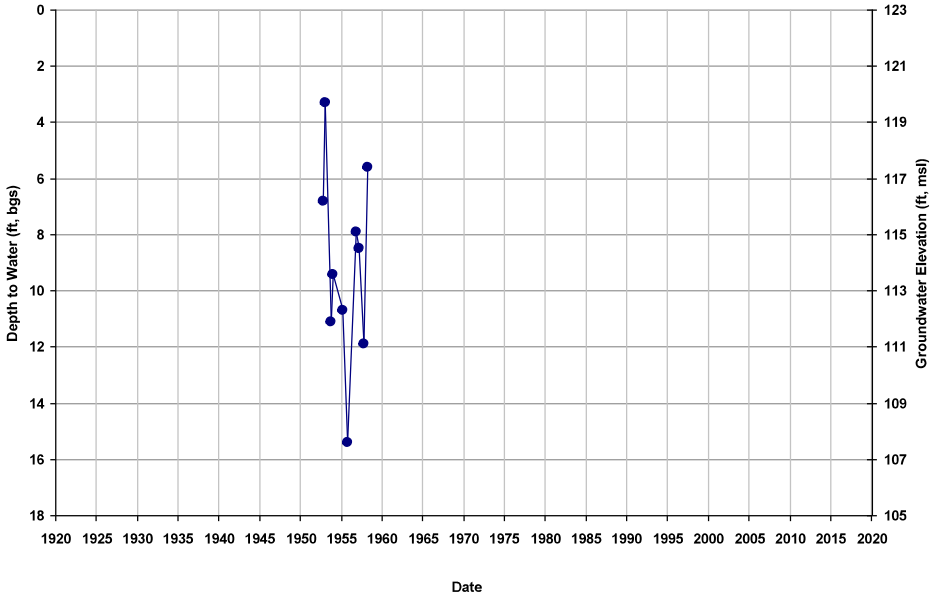
Well ID: 10S13E35G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 124
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



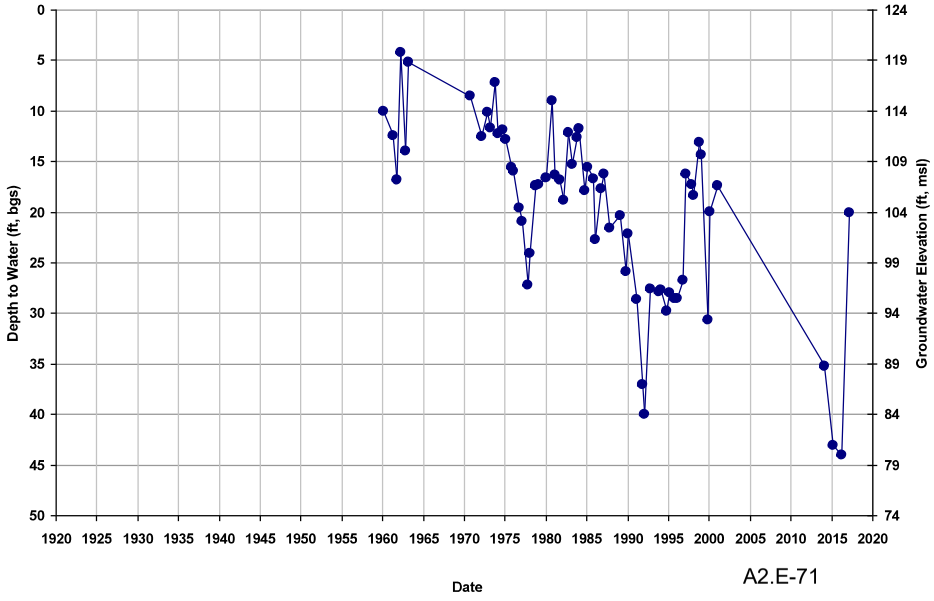
Well ID: 10S13E35H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 123
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



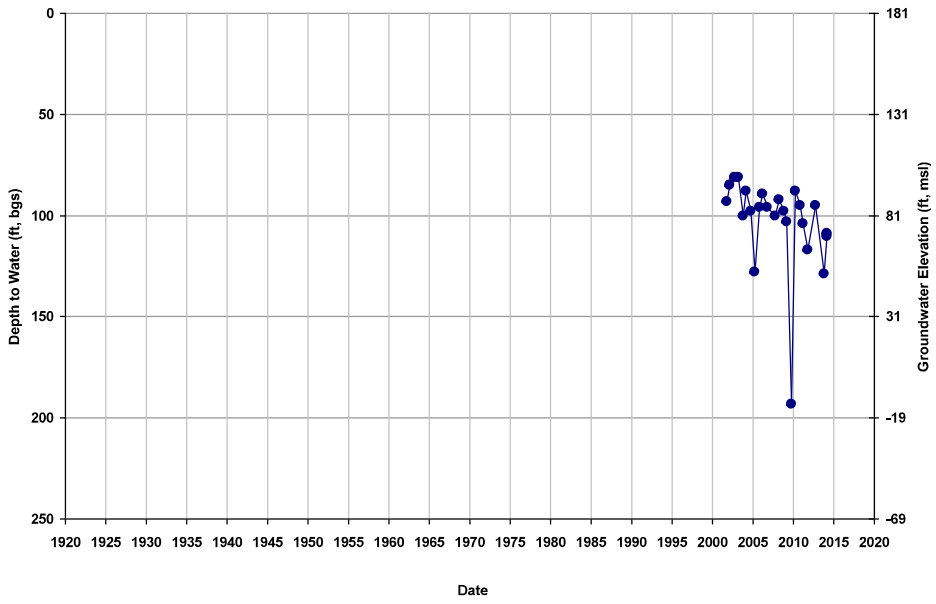
Well ID: 10S13E35K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 124
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



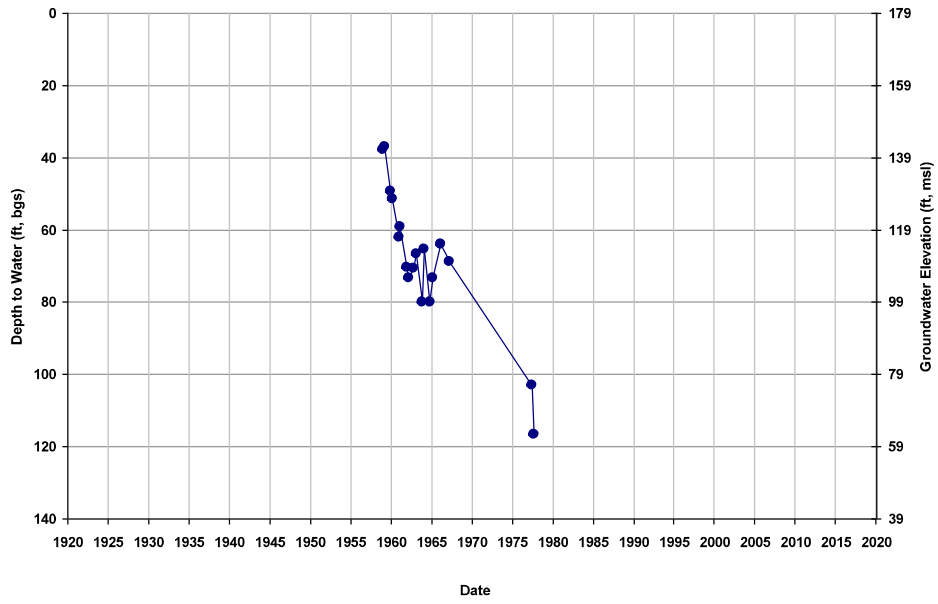
Well ID: 10S14E01A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 181
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



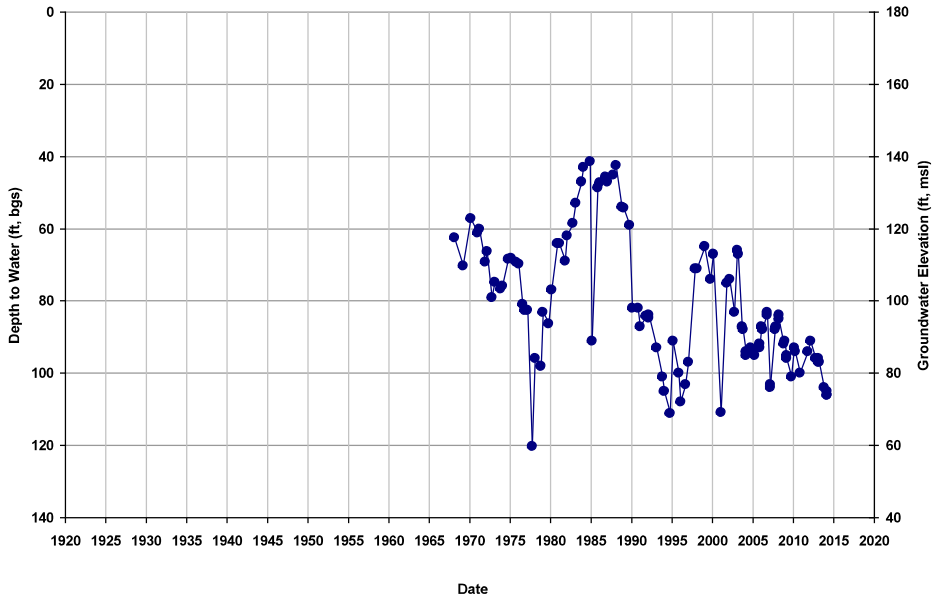
Well ID: 10S14E01R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 179
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



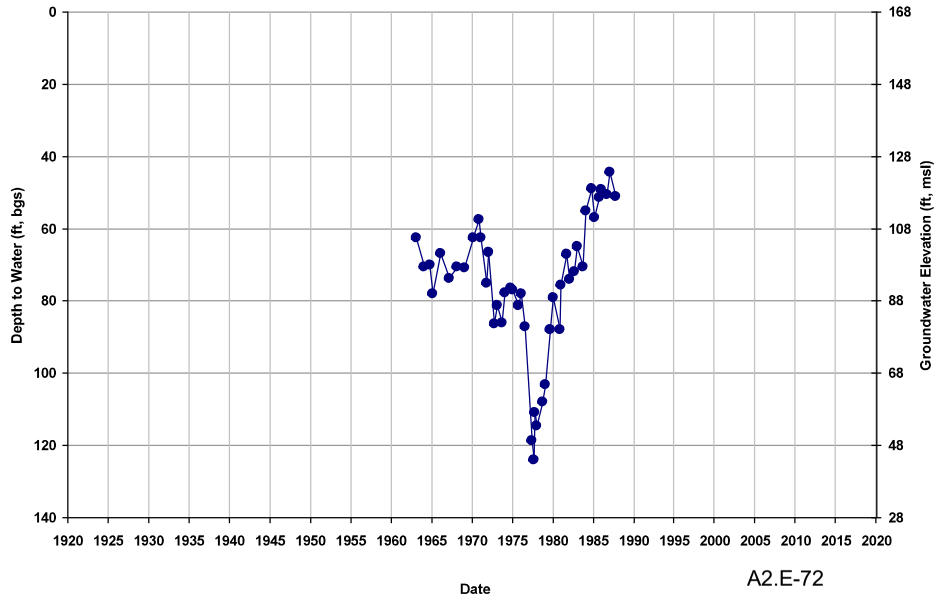
Well ID: 10S14E01R002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 180
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



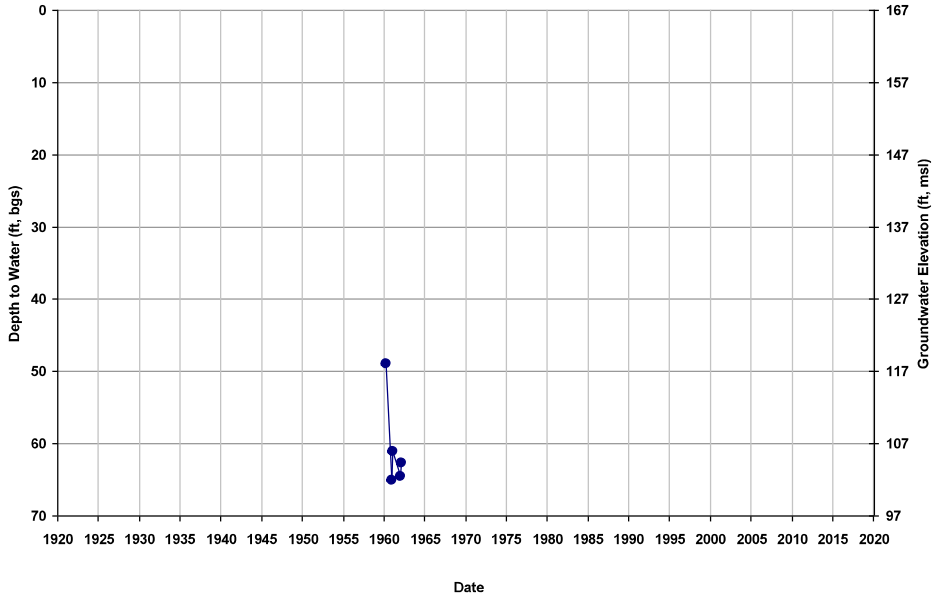
Well ID: 10S14E02L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 168
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



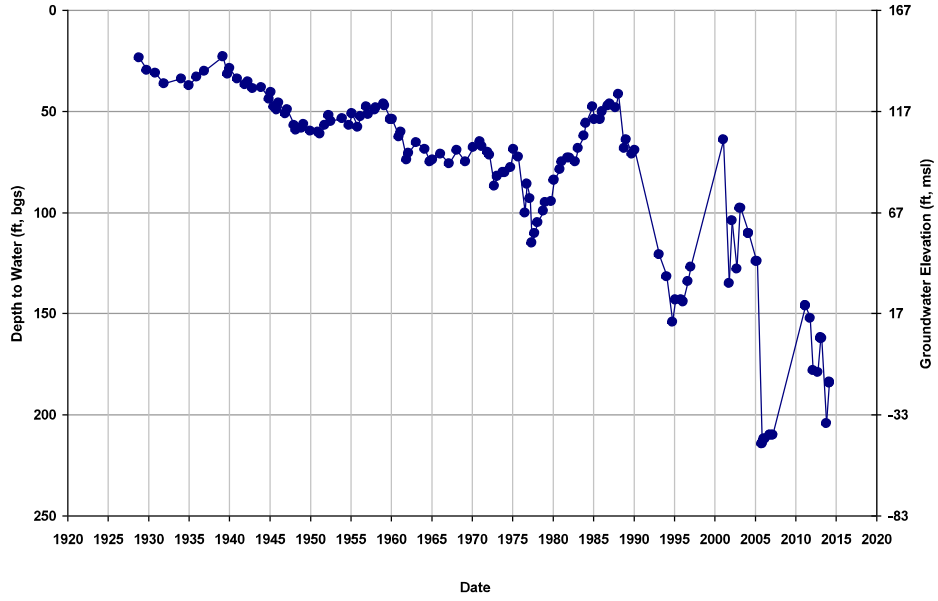
Well ID: 10S14E02Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 167
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



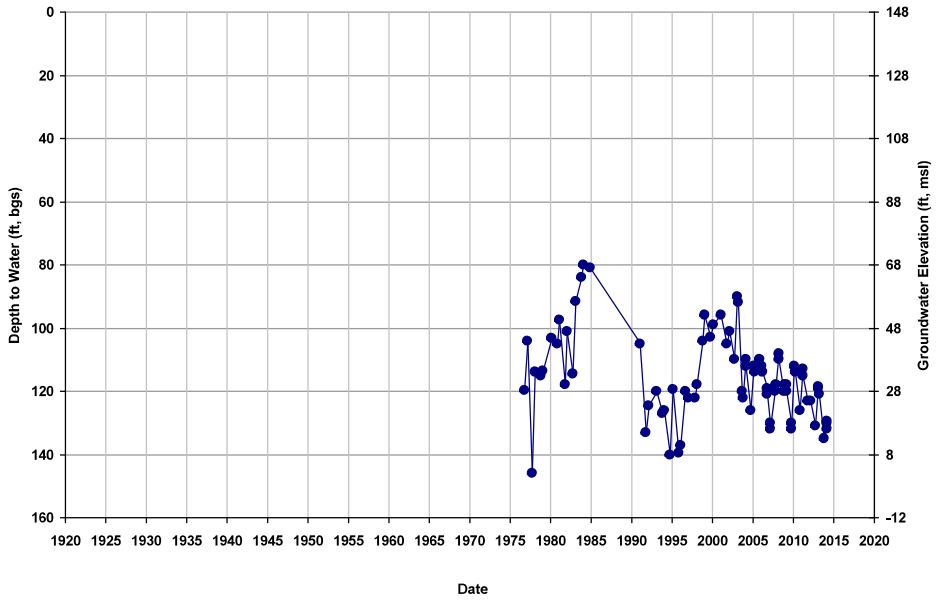
Well ID: 10S14E03A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 167
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



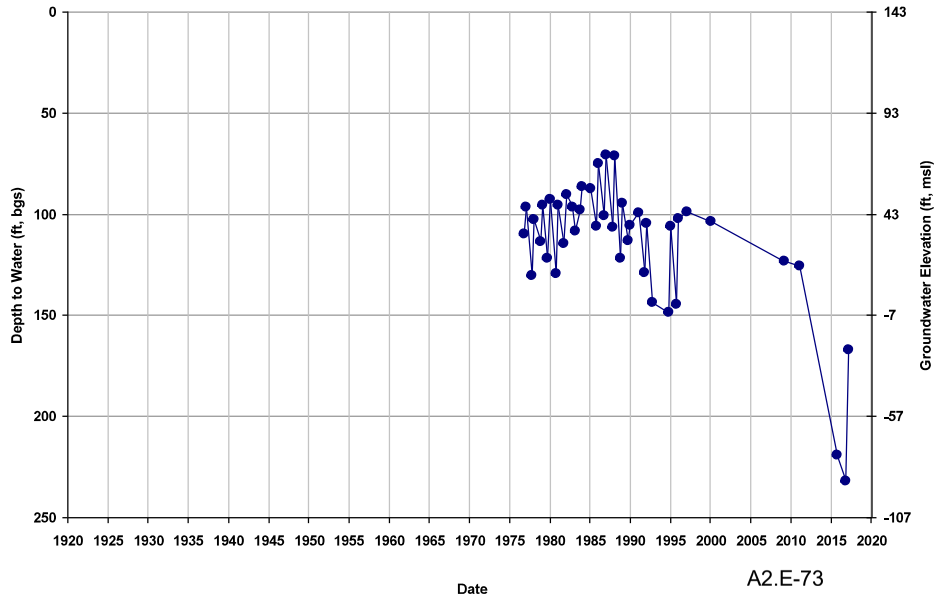
Well ID: 10S14E05C003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 148
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



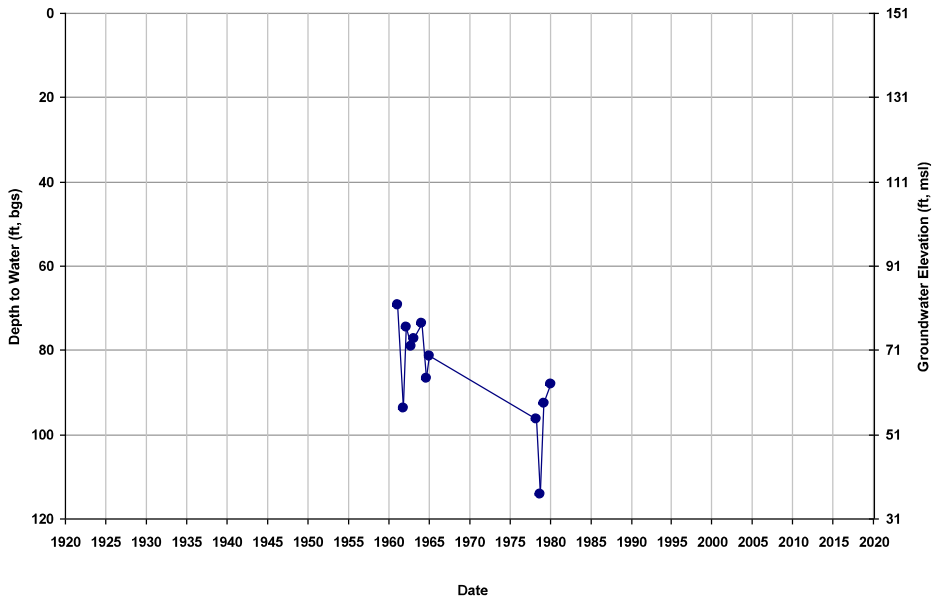
Well ID: 10S14E06R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



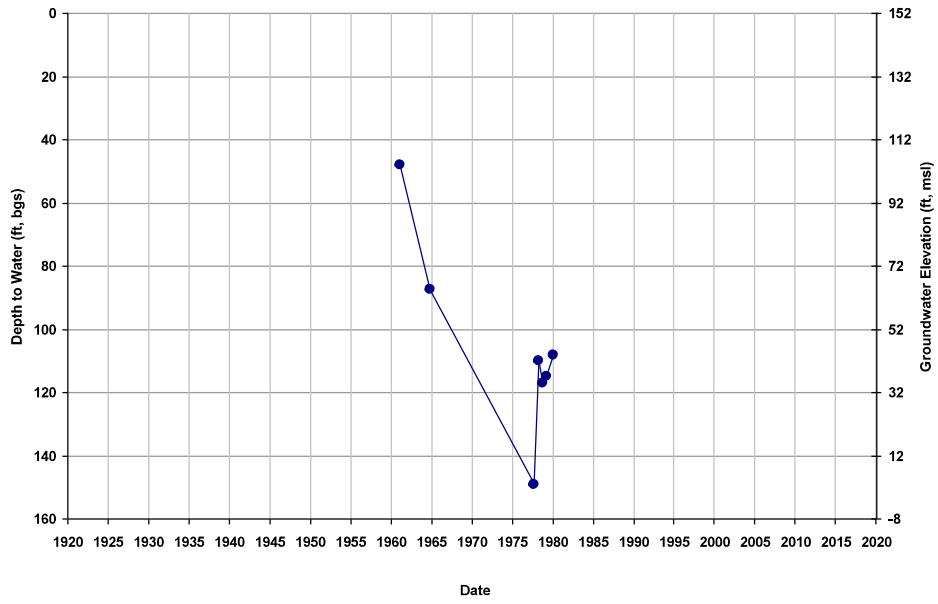
Well ID: 10S14E08B001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 151
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



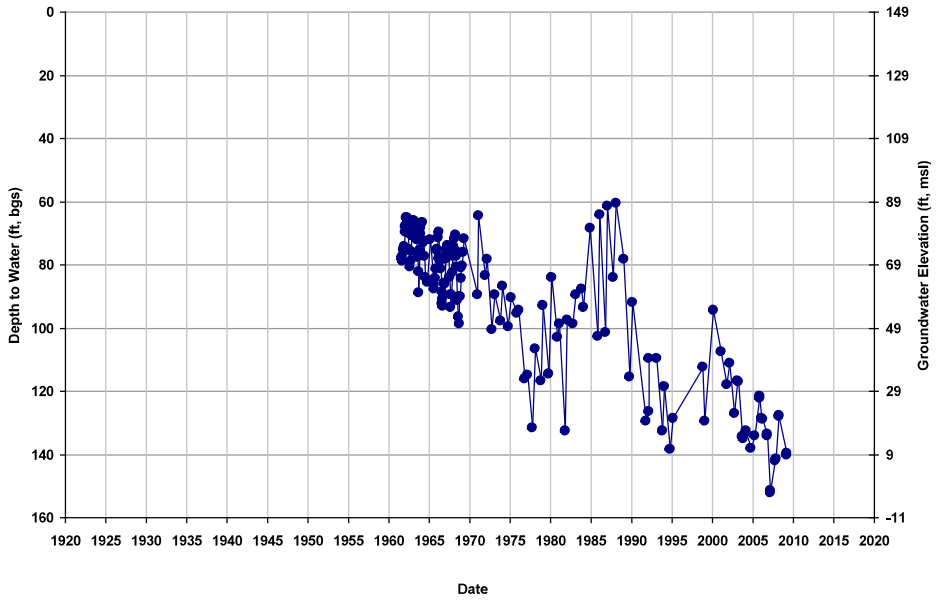
Well ID: 10S14E08B002M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 152
Total Depth (ft): 137
Perf Top (ft): NA
Perf Bottom (ft): NA



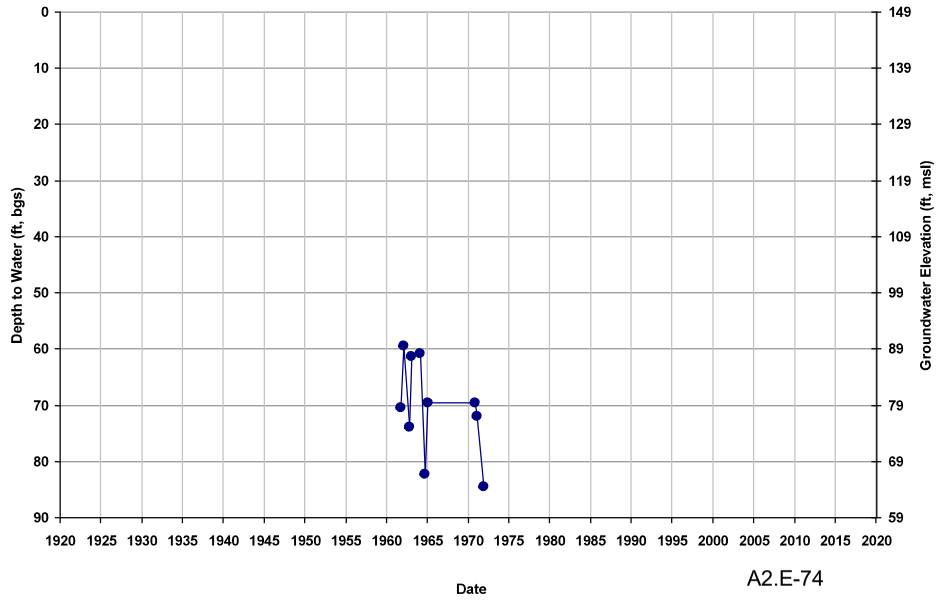
Well ID: 10S14E08B003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 149
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



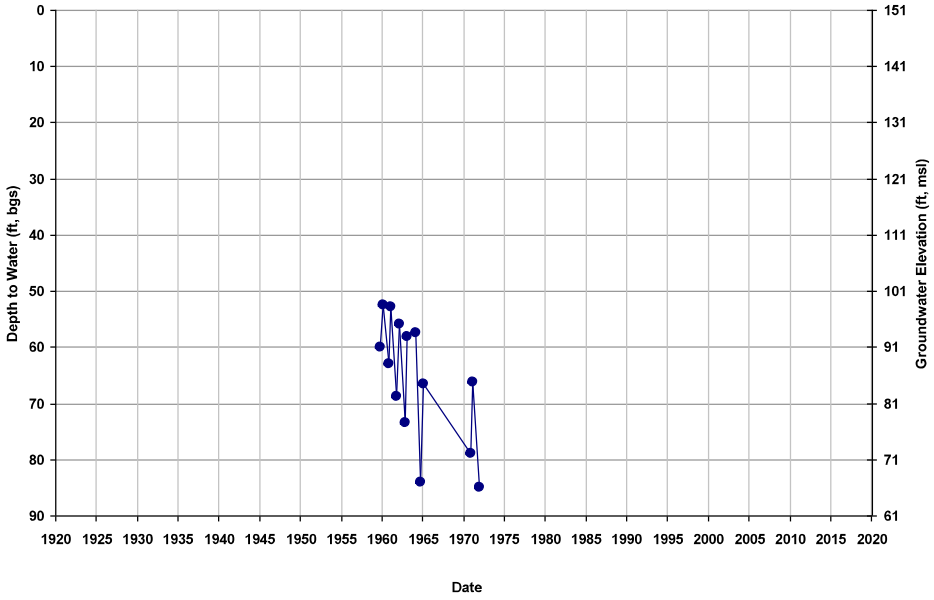
Well ID: 10S14E08B004M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 149
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



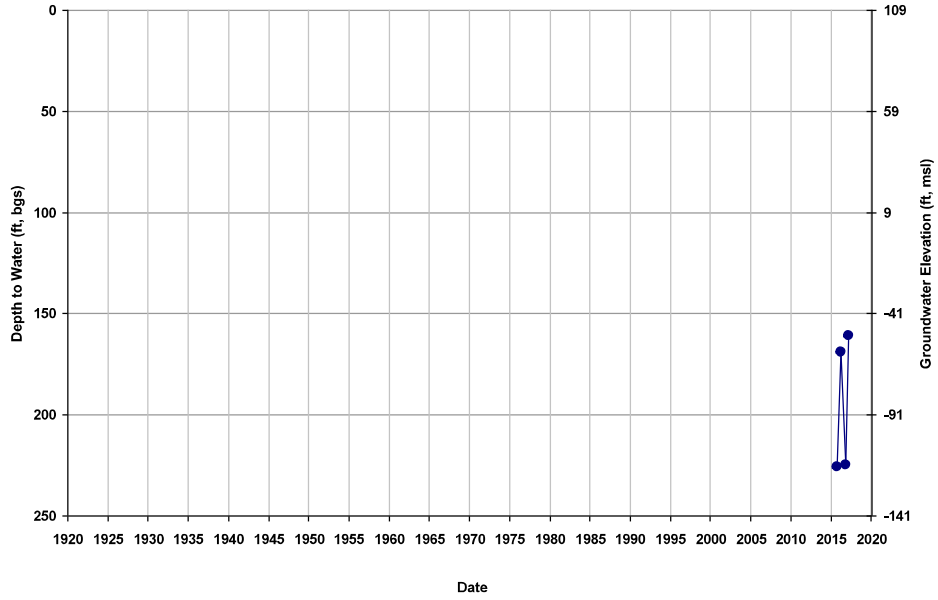
Well ID: 10S14E08B005M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 151
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



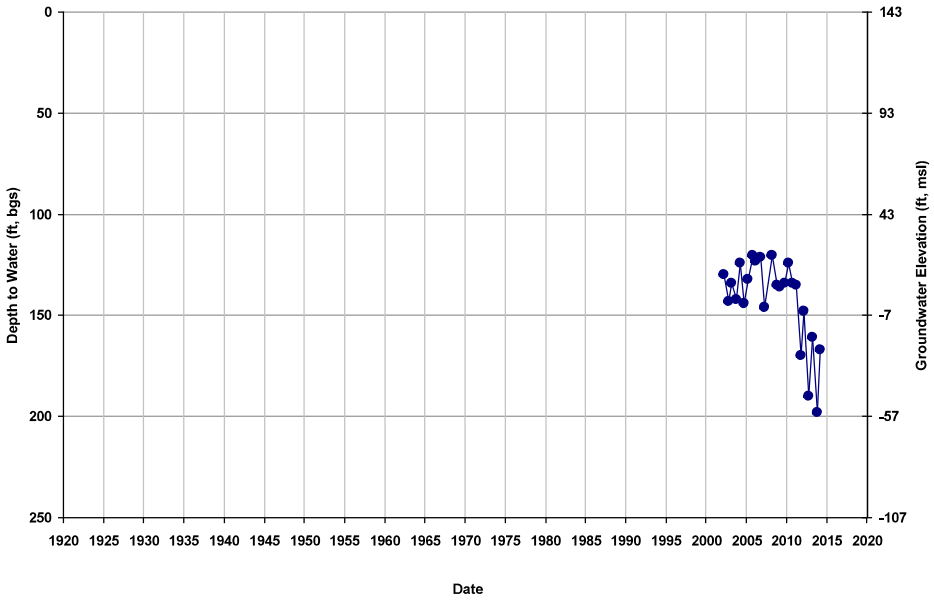
Well ID: 10S14E08D
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 109
Total Depth (ft): 410
Perf Top (ft): 230
Perf Bottom (ft): 360



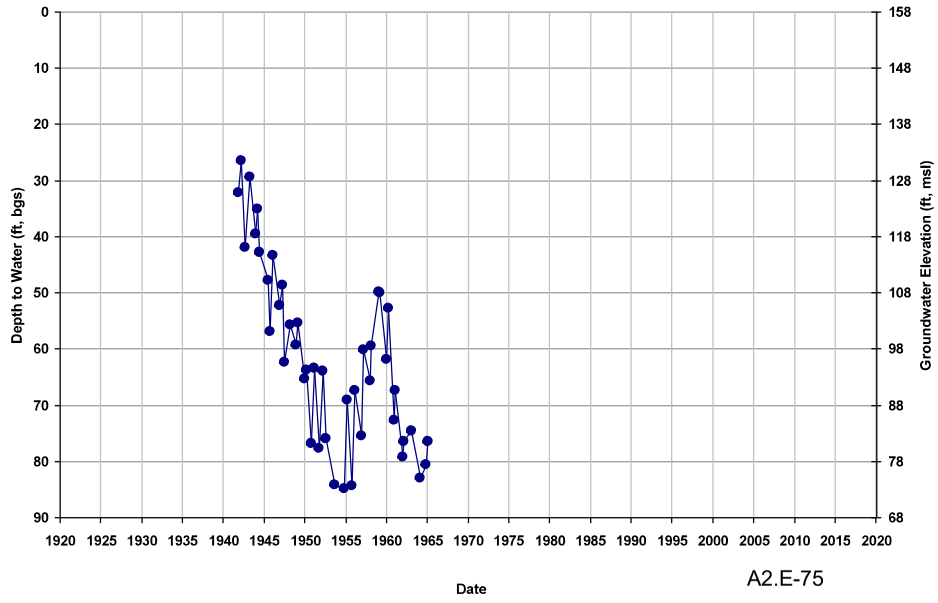
Well ID: 10S14E08N001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



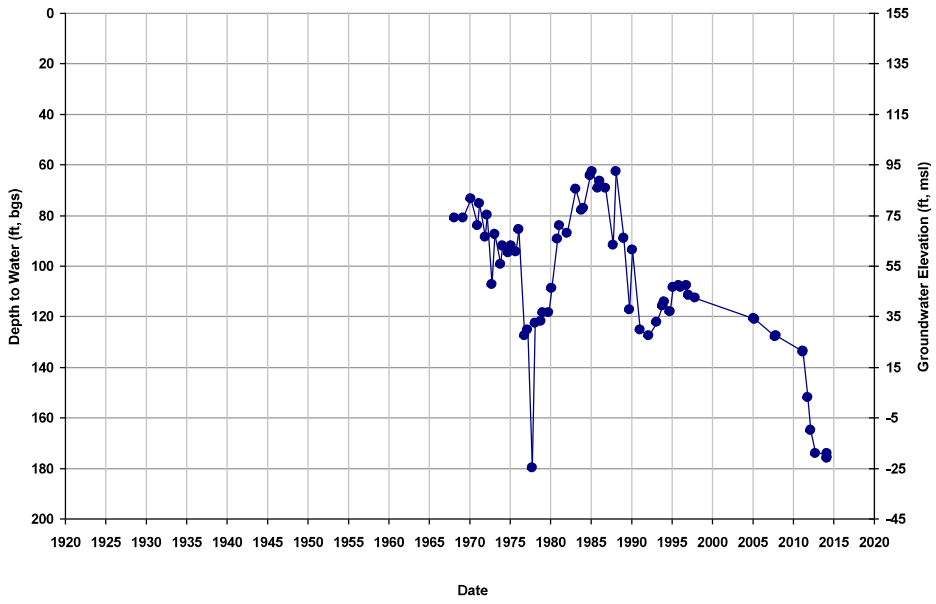
Well ID: 10S14E09A002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 157
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



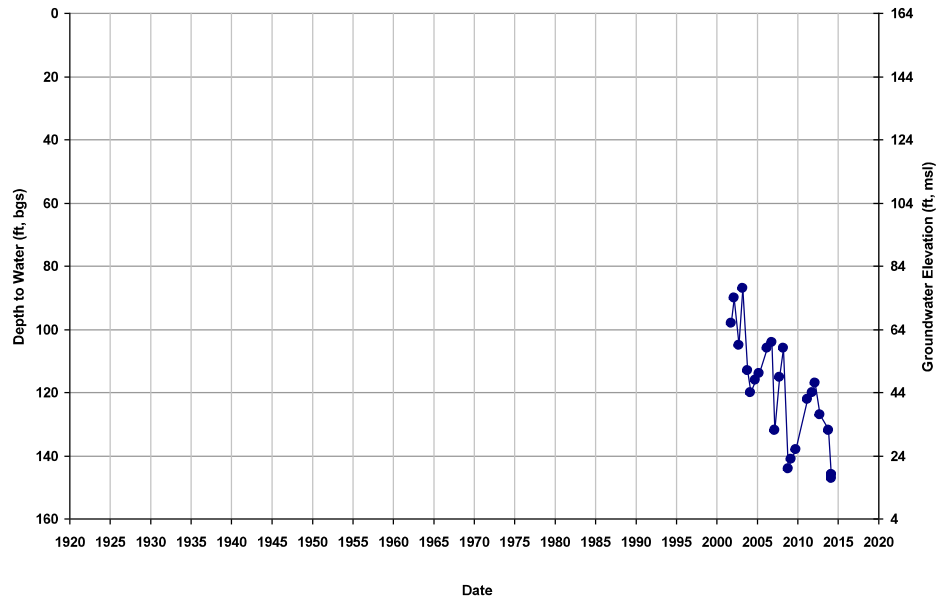
Well ID: 10S14E09A003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 155
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



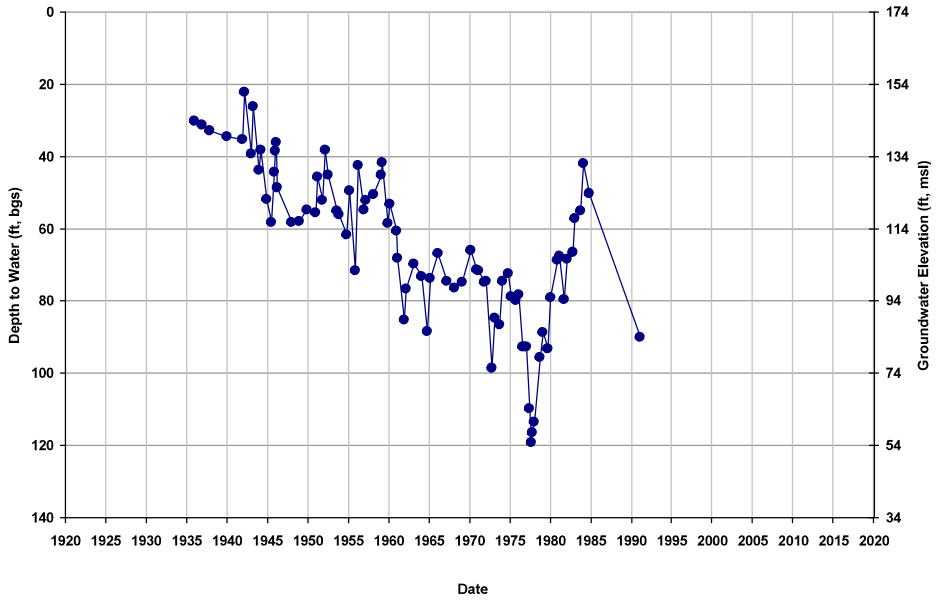
Well ID: 10S14E10H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 164
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



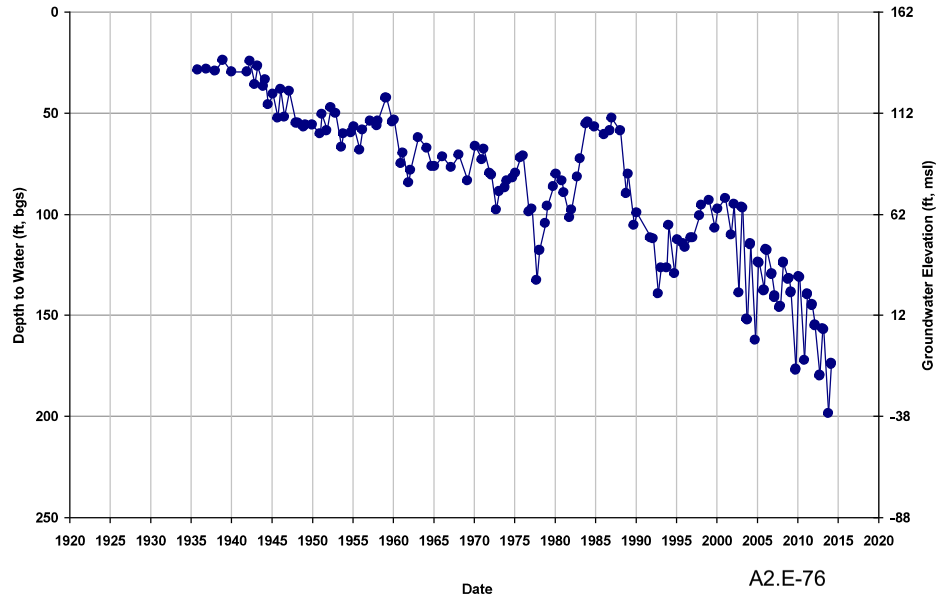
Well ID: 10S14E11R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 173
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



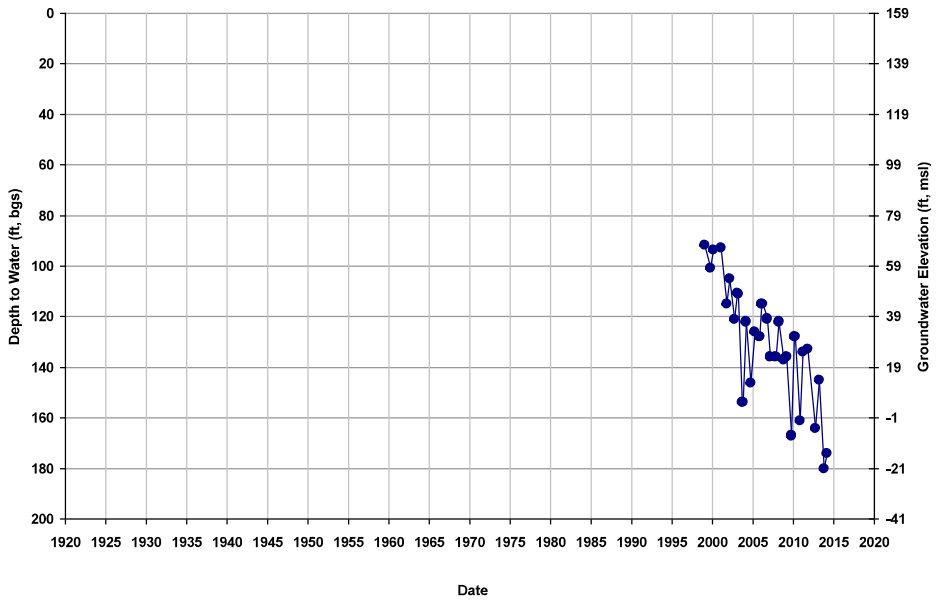
Well ID: 10S14E15H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 162
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



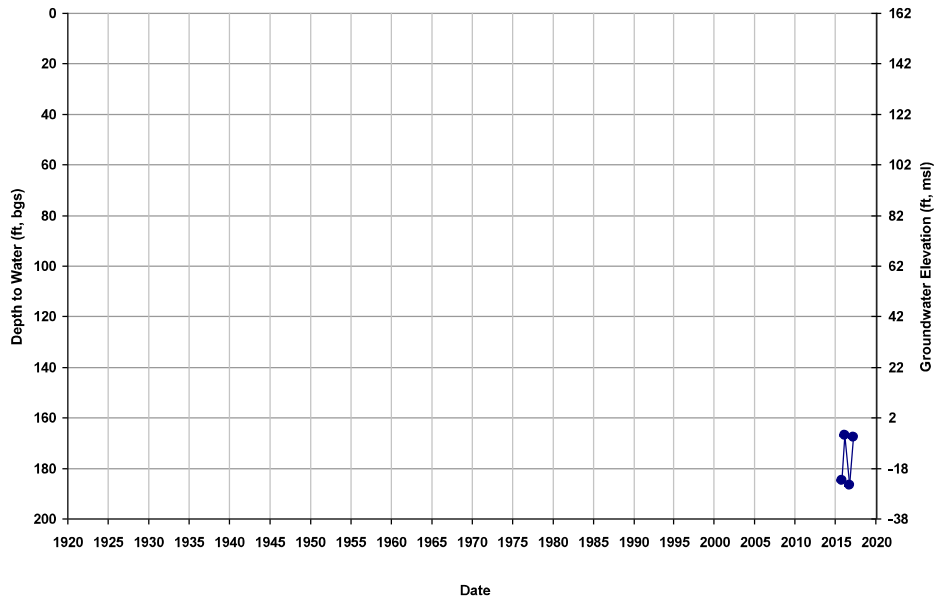
Well ID: 10S14E15J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



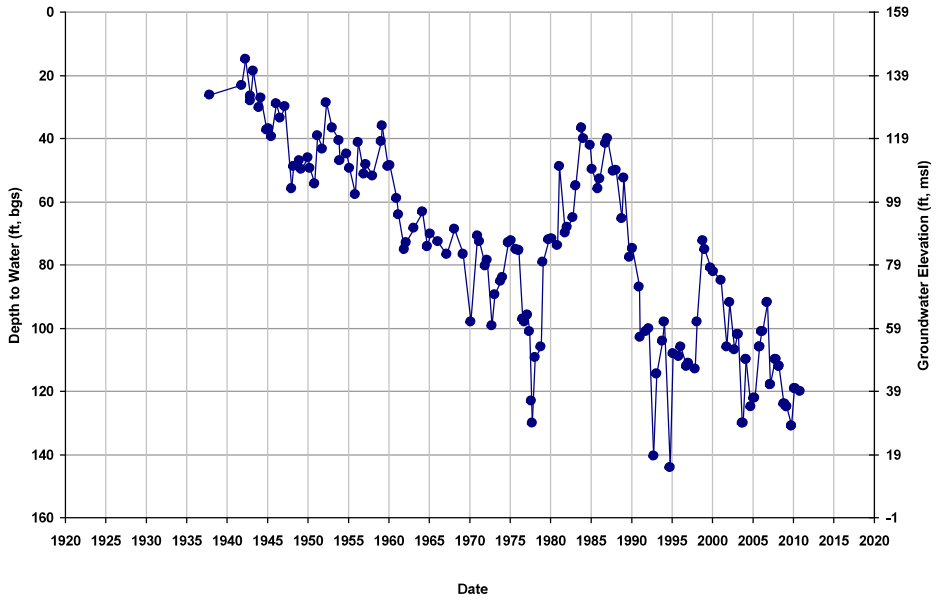
Well ID: 10S14E15J1
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 162
Total Depth (ft): 330
Perf Top (ft): 135
Perf Bottom (ft): 288



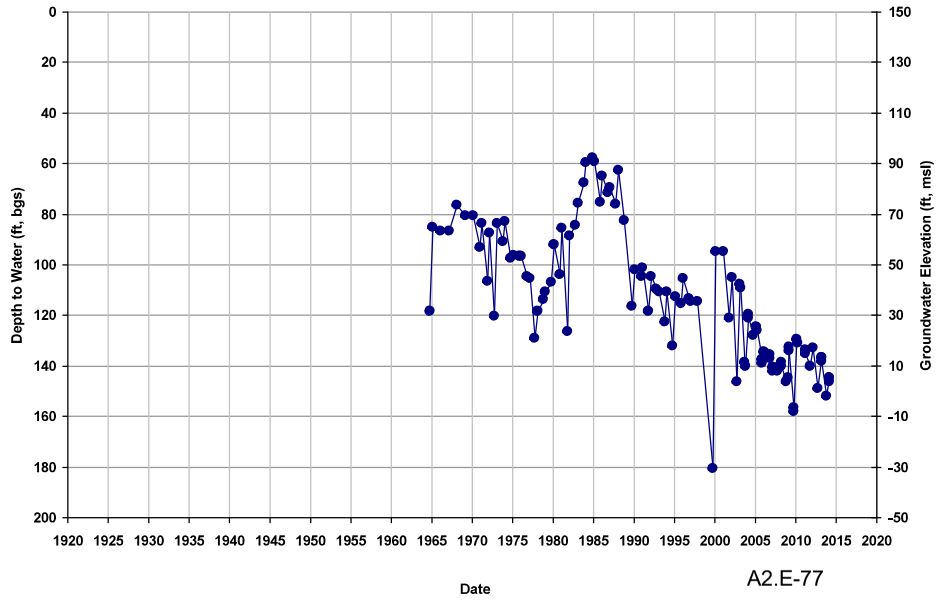
Well ID: 10S14E15R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



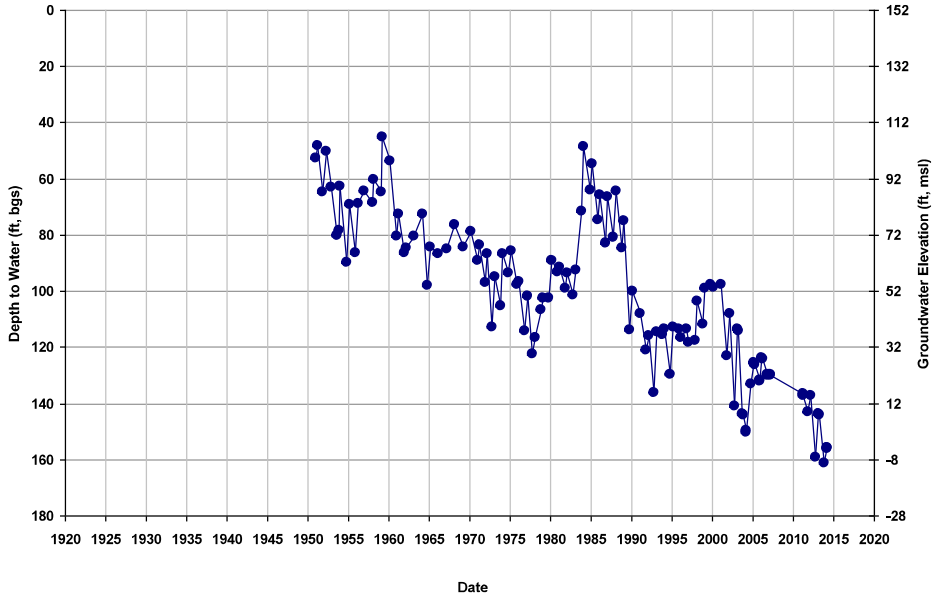
Well ID: 10S14E16F002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 150
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



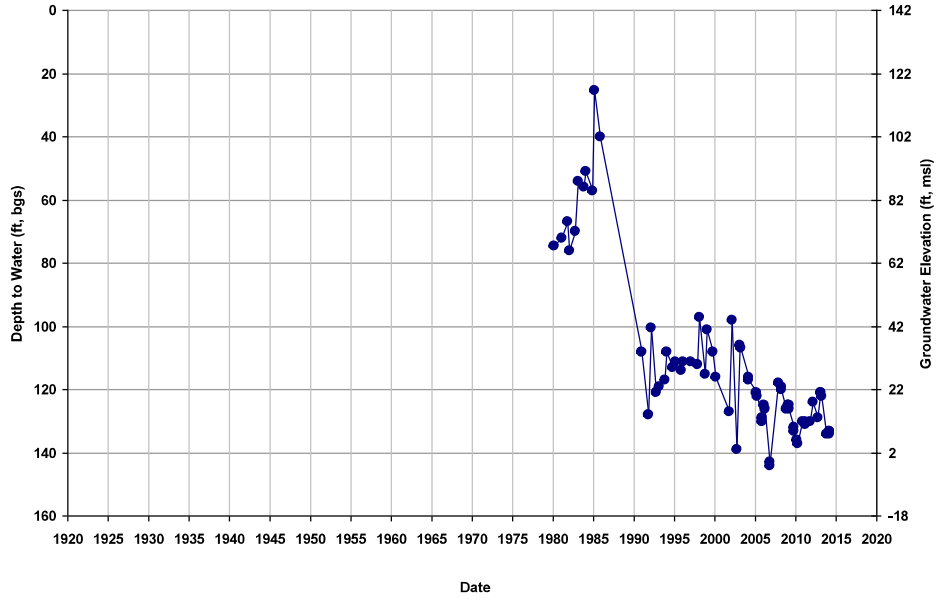
Well ID: 10S14E16H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 152
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



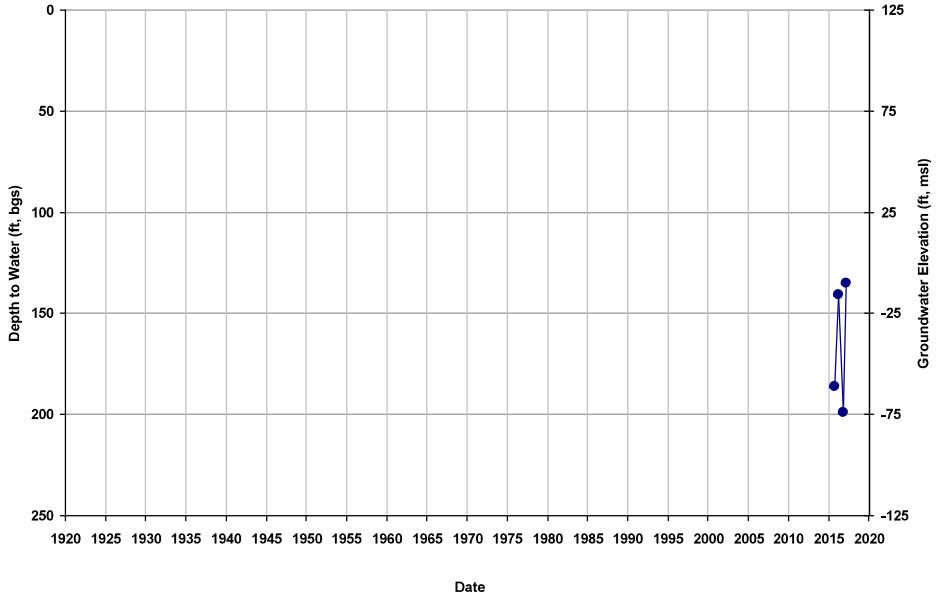
Well ID: 10S14E17J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



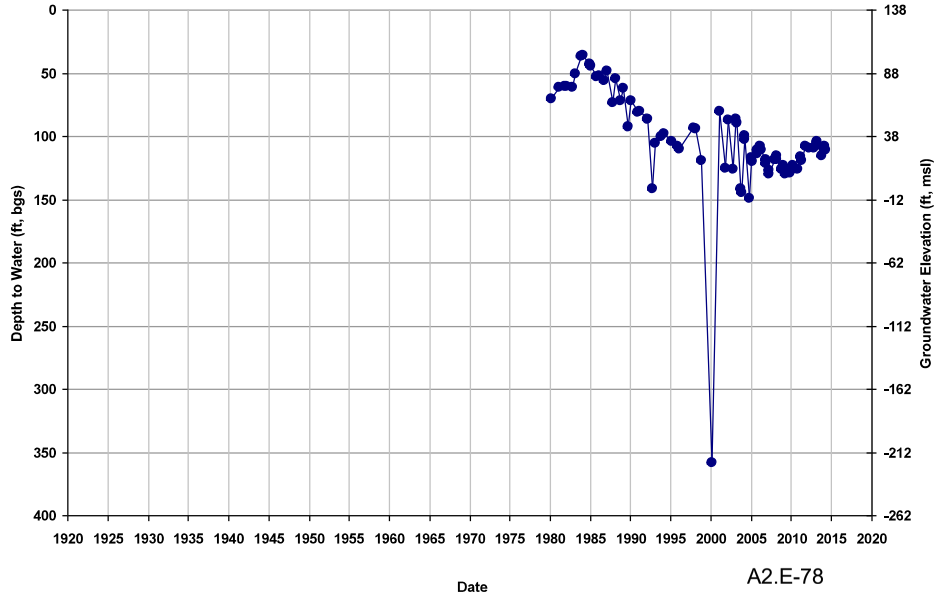
Well ID: 10S14E18D
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 125
Total Depth (ft): 516
Perf Top (ft): 265
Perf Bottom (ft): 506



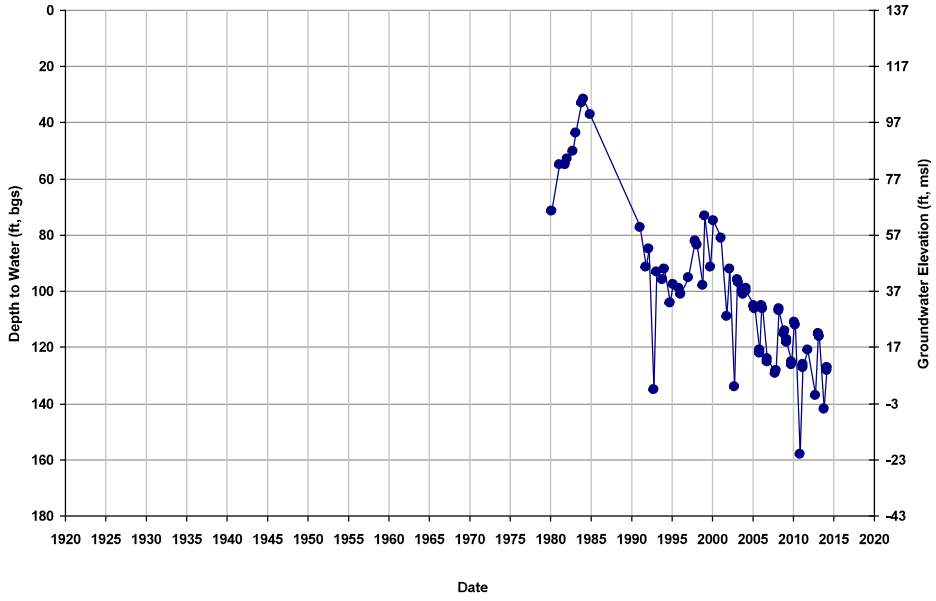
Well ID: 10S14E18K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



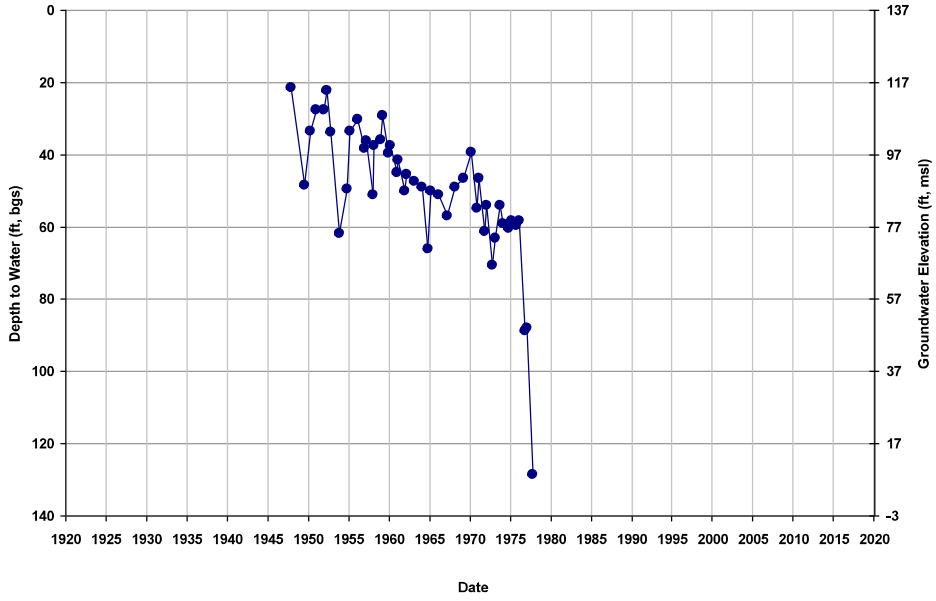
Well ID: 10S14E19A002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



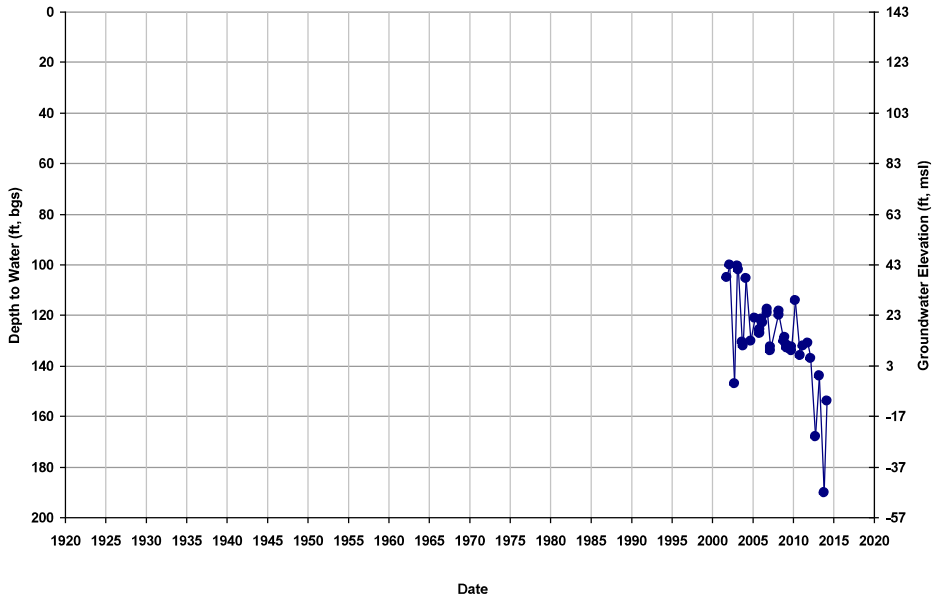
Well ID: 10S14E19R003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 136
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



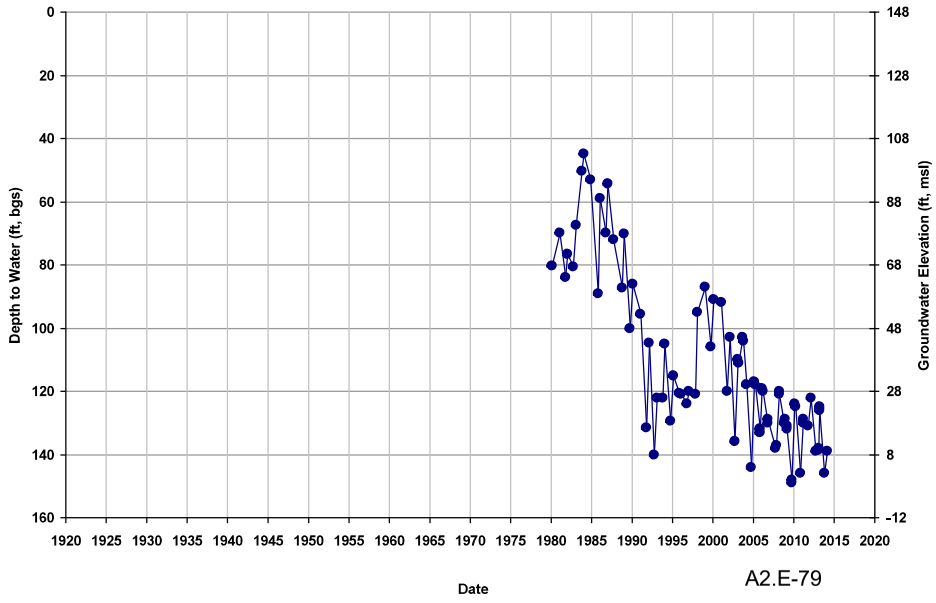
Well ID: 10S14E20H002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



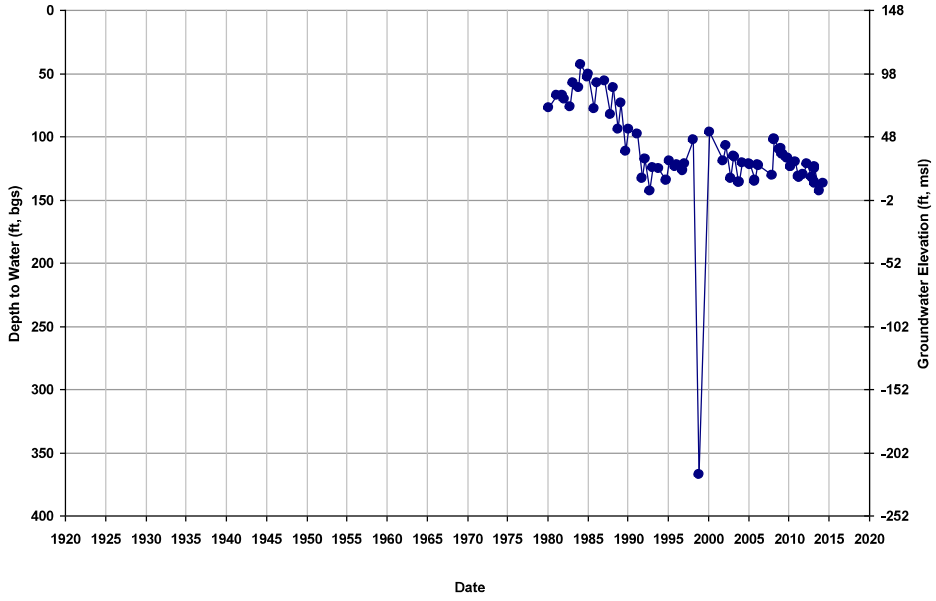
Well ID: 10S14E21C003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 147
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



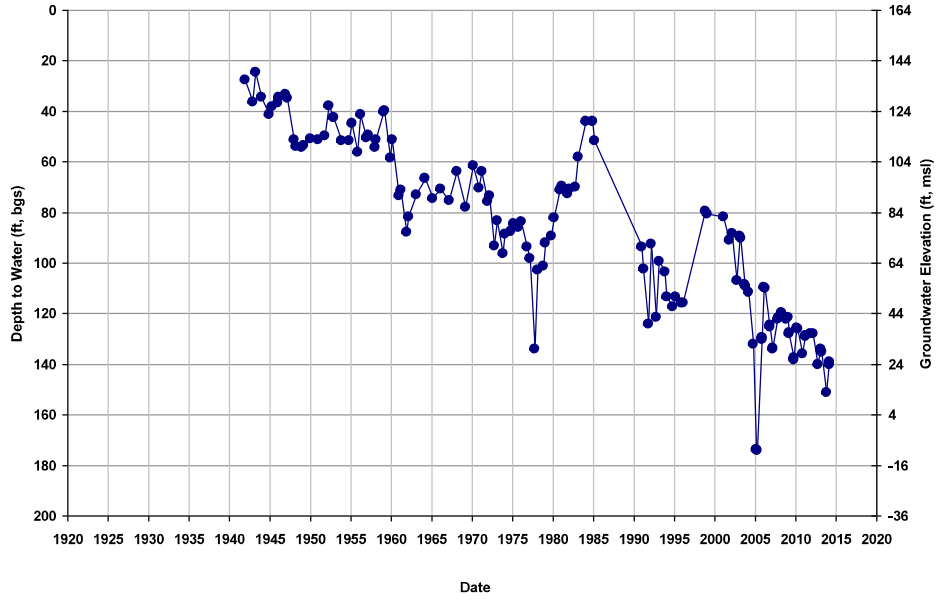
Well ID: 10S14E21G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 148
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



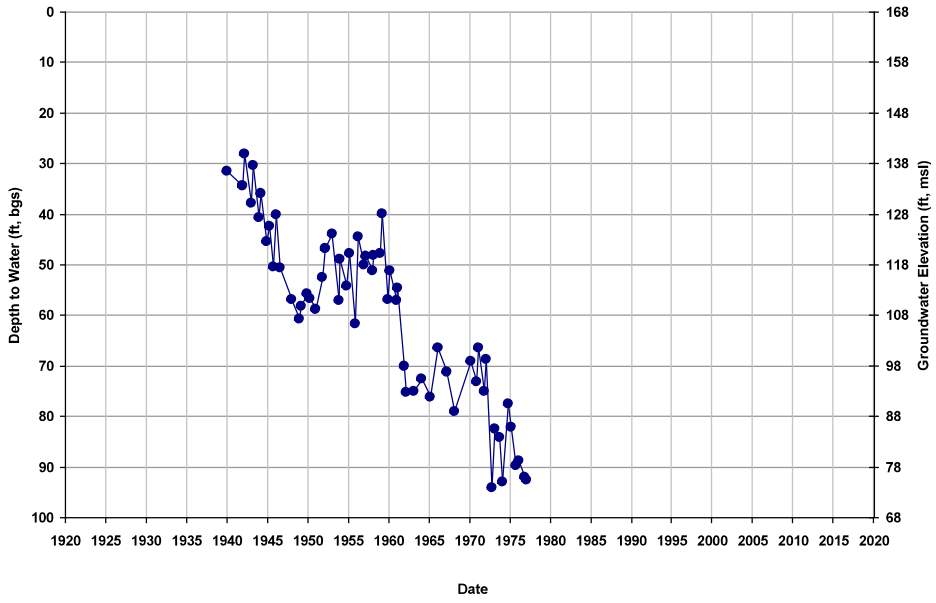
Well ID: 10S14E23A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 164
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



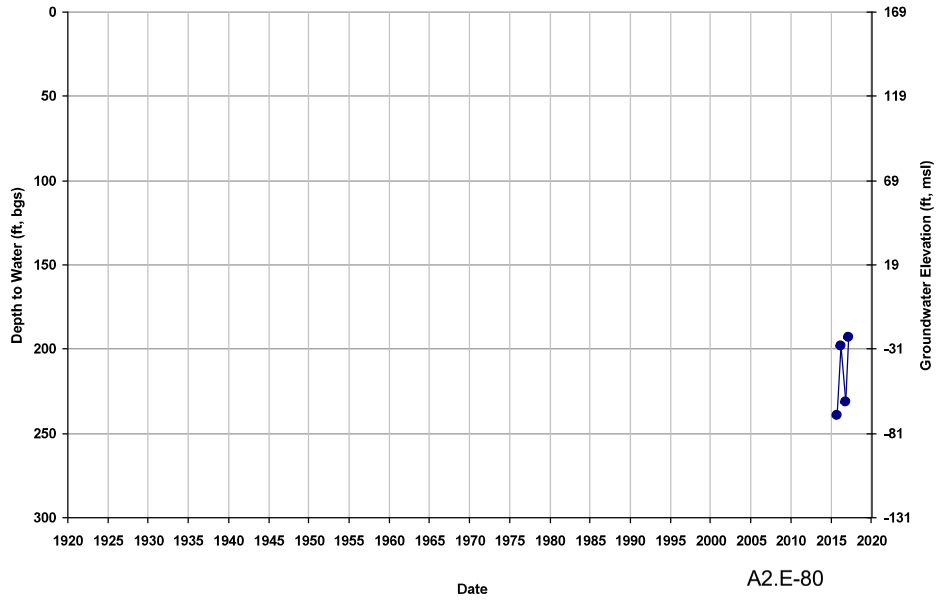
Well ID: 10S14E24C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 168
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



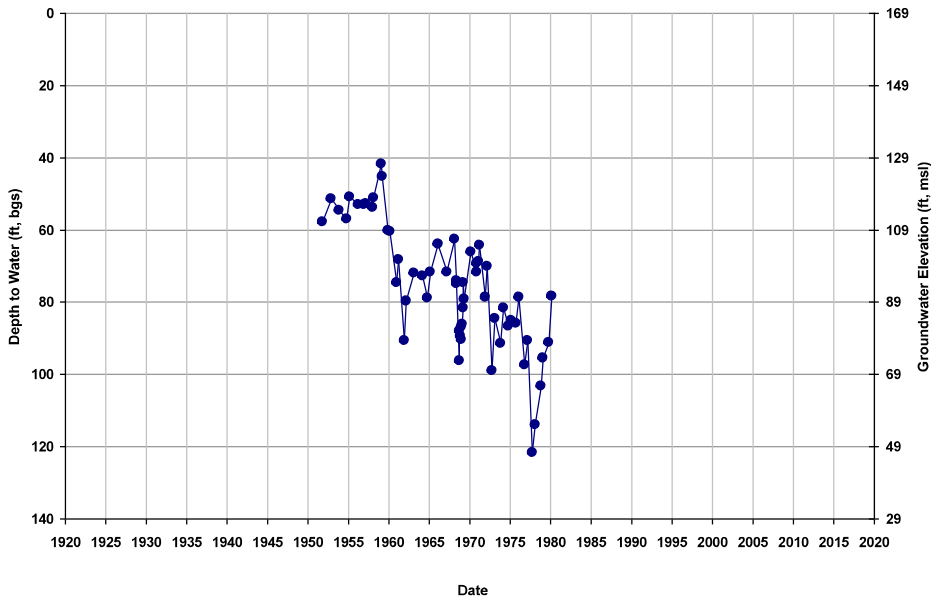
Well ID: 10S14E24M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 169
Total Depth (ft): 696
Perf Top (ft): 255
Perf Bottom (ft): 636



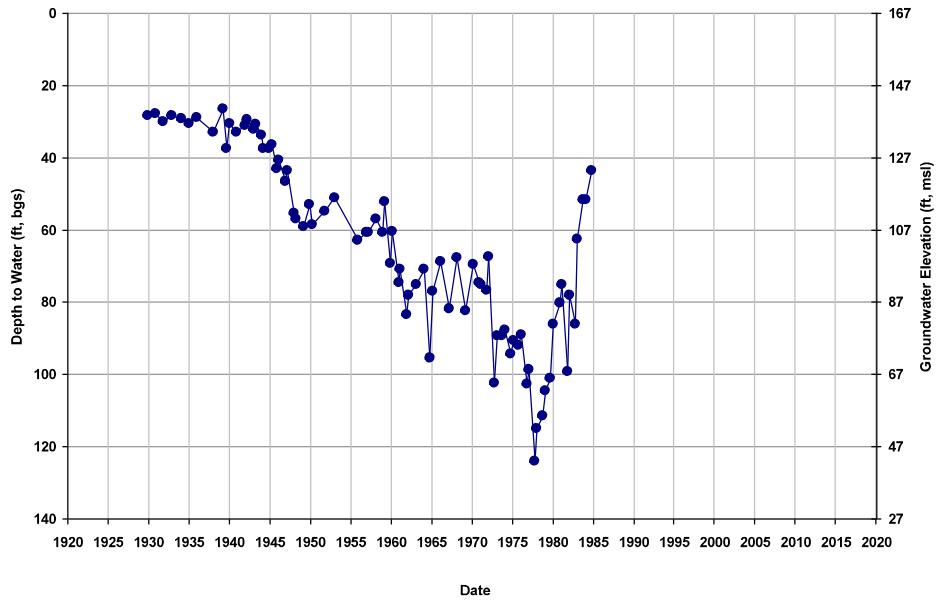
Well ID: 10S14E24R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 169
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



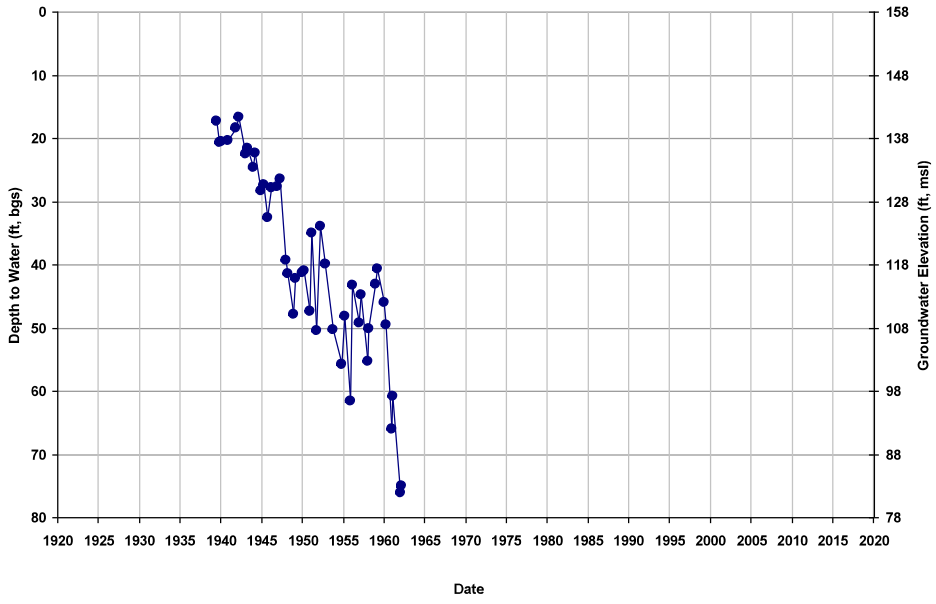
Well ID: 10S14E25K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 167
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



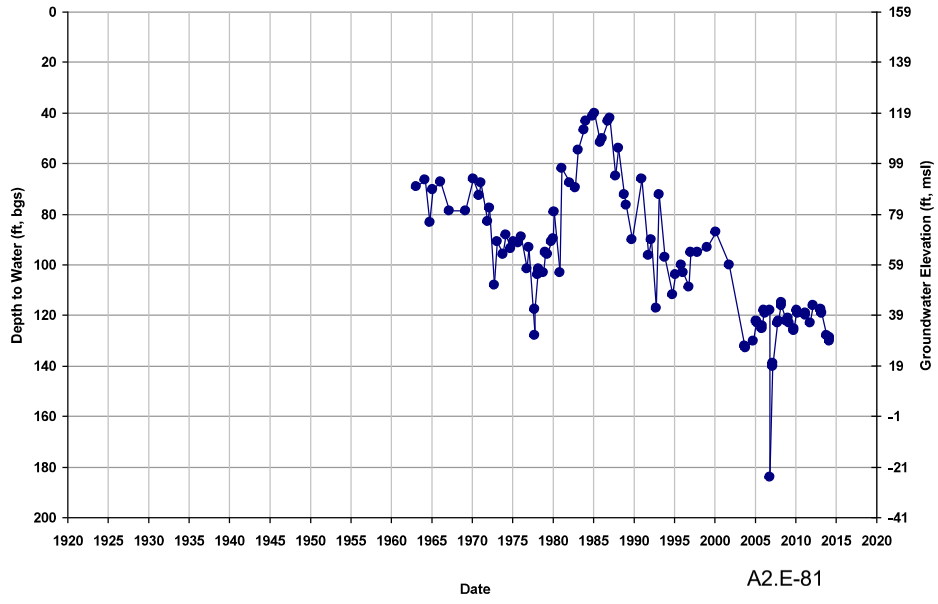
Well ID: 10S14E26C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 158
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



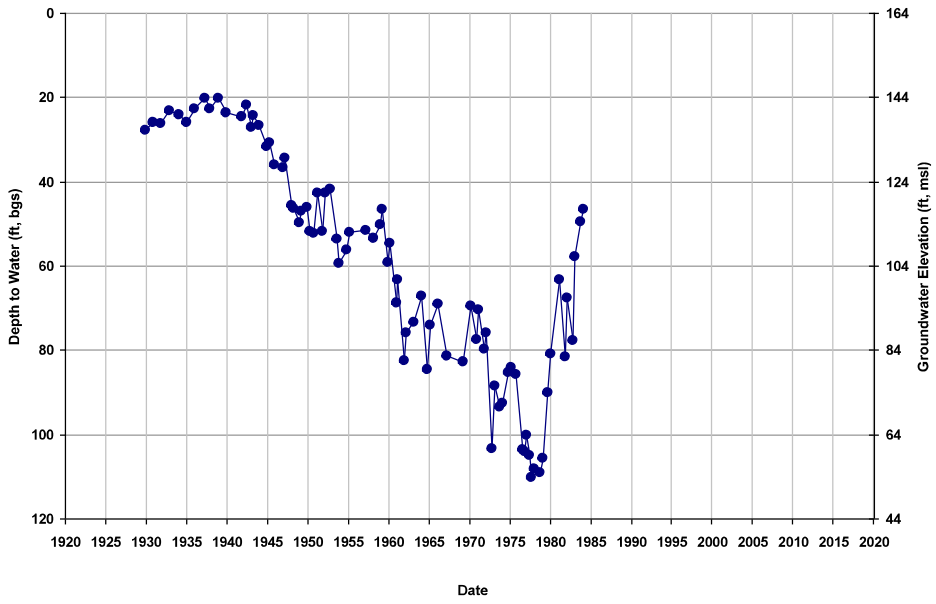
Well ID: 10S14E26C002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 158
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



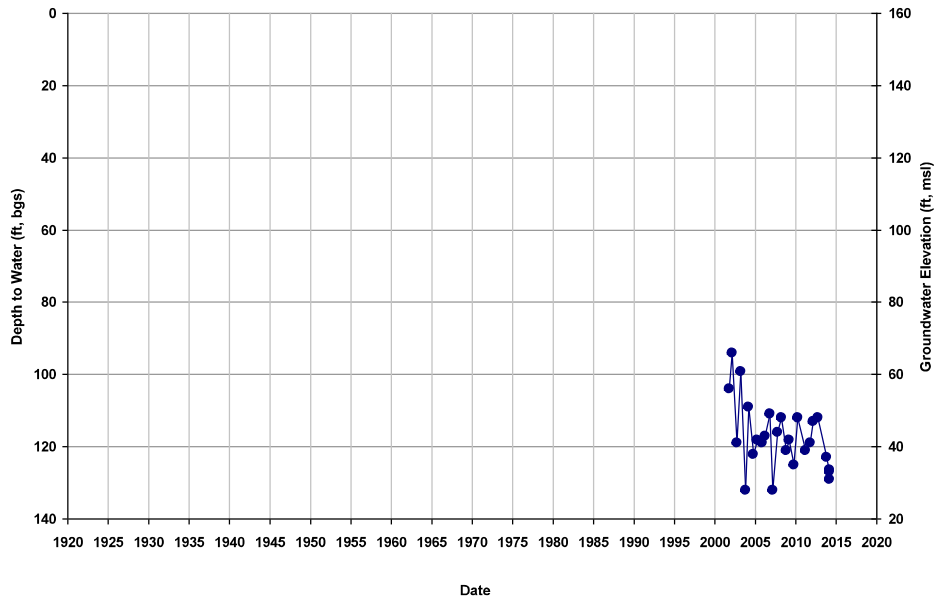
Well ID: 10S14E26H001M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 163
Total Depth (ft): 145
Perf Top (ft): NA
Perf Bottom (ft): NA



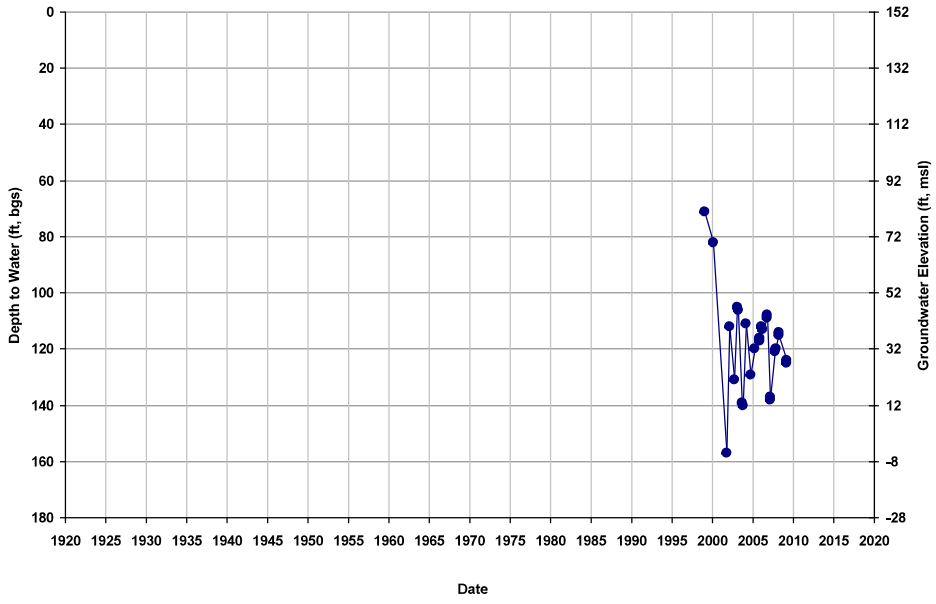
Well ID: 10S14E26R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 160
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



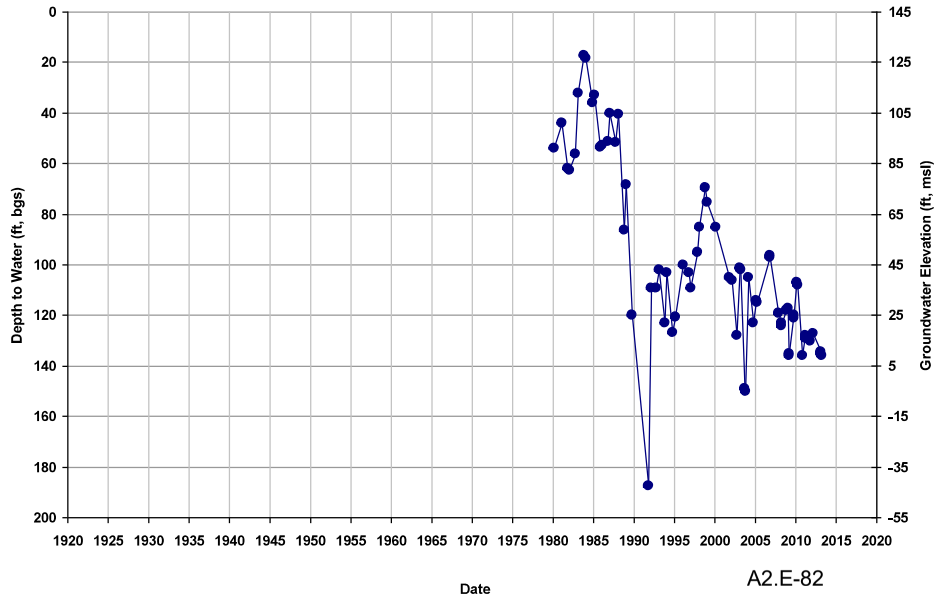
Well ID: 10S14E27H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 152
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



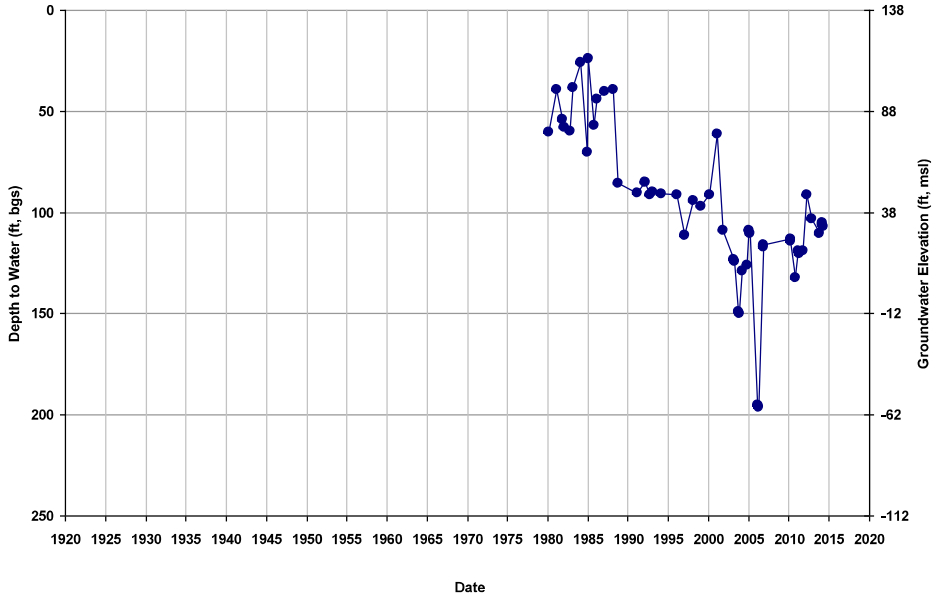
Well ID: 10S14E28B001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 145
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



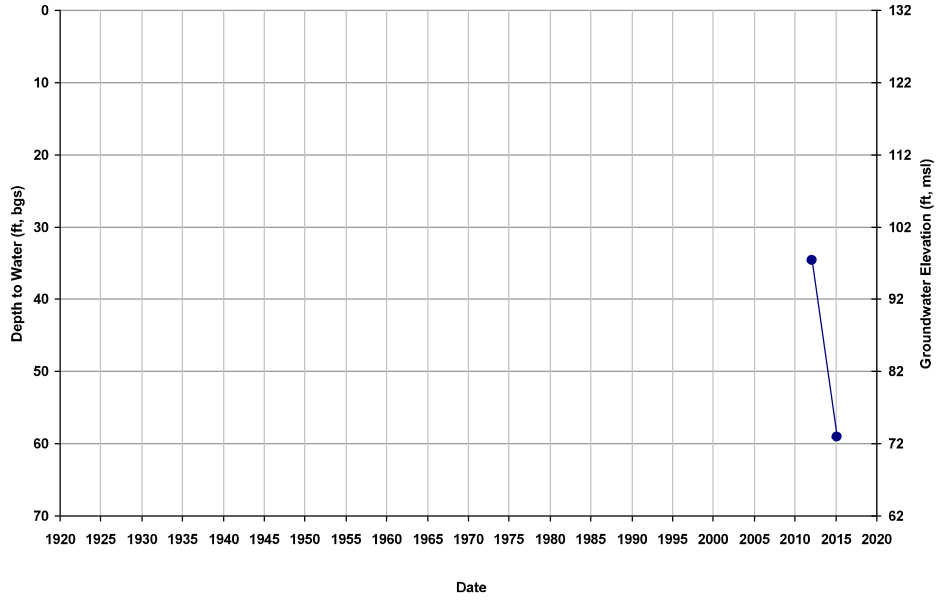
Well ID: 10S14E29C002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



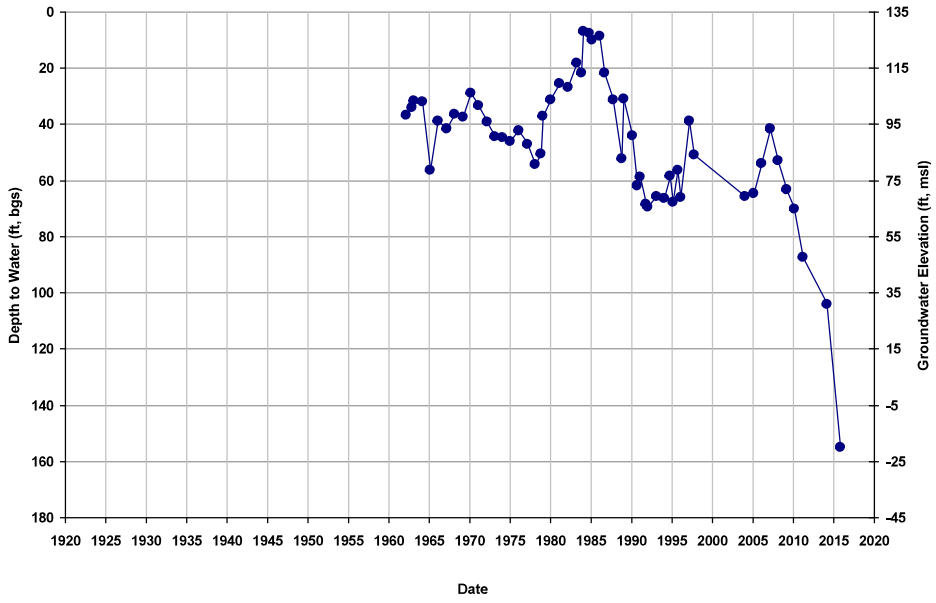
Well ID: 10S14E31H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



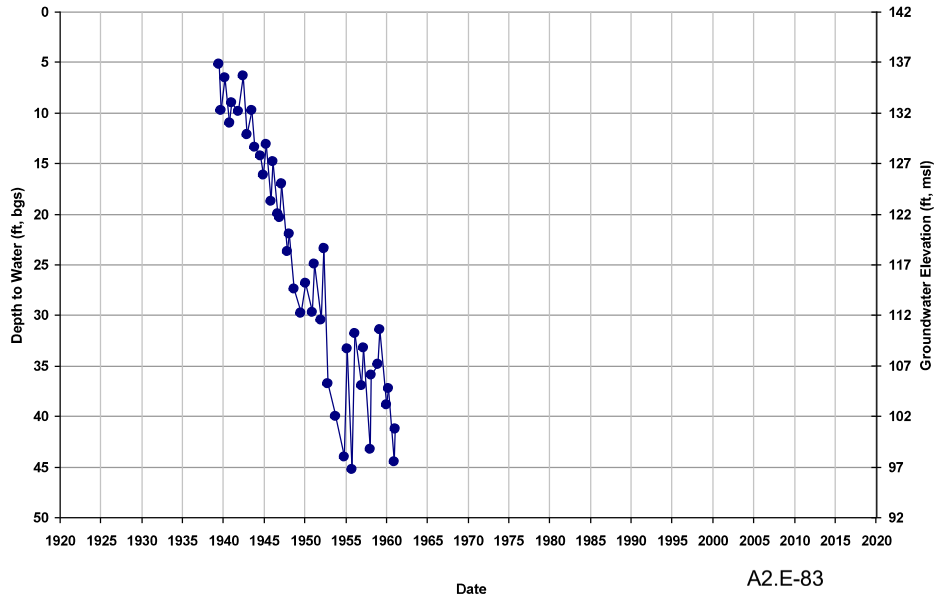
Well ID: 10S14E32Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



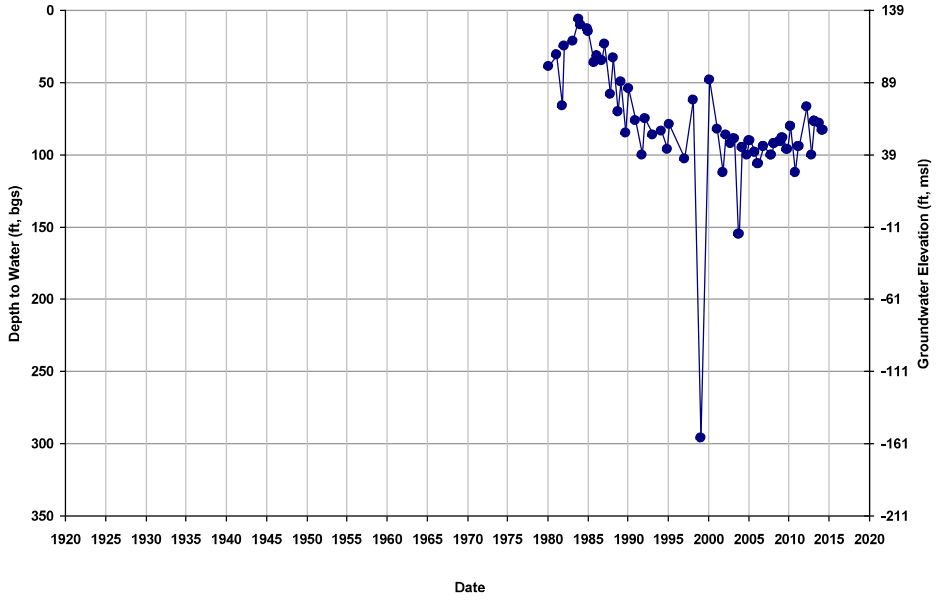
Well ID: 10S14E33J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



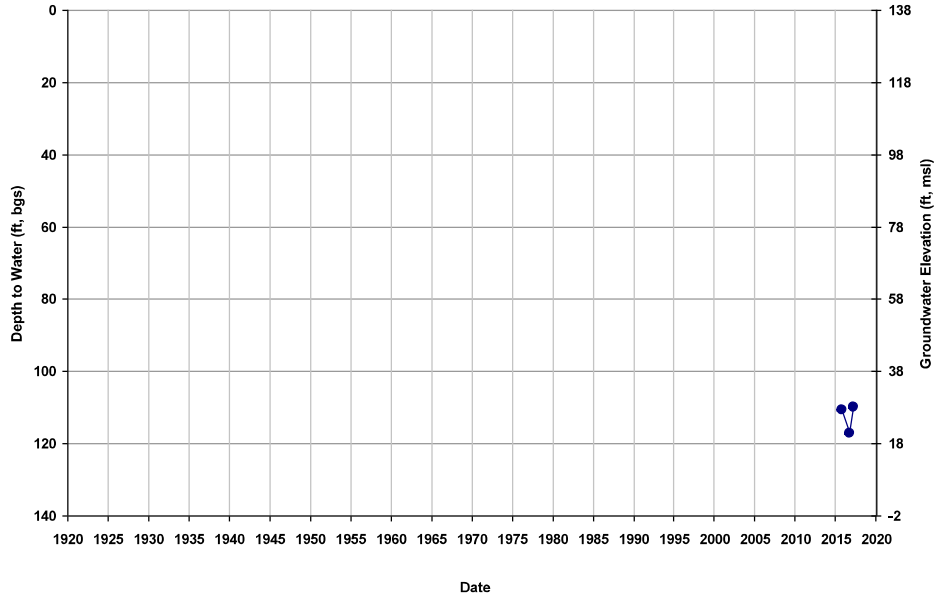
Well ID: 10S14E33L002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 139
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



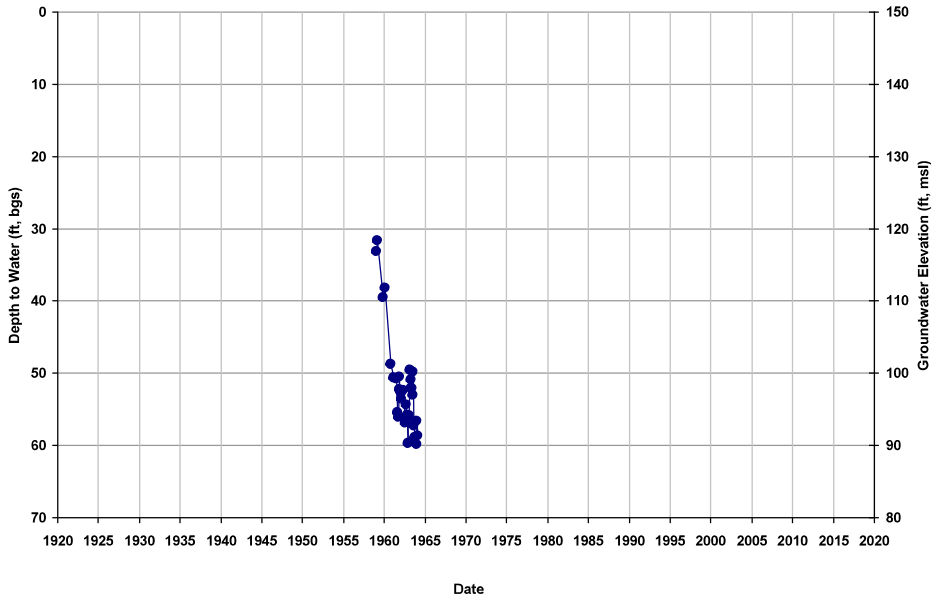
Well ID: 10S14E33M001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): 800
Perf Top (ft): 290
Perf Bottom (ft): 400



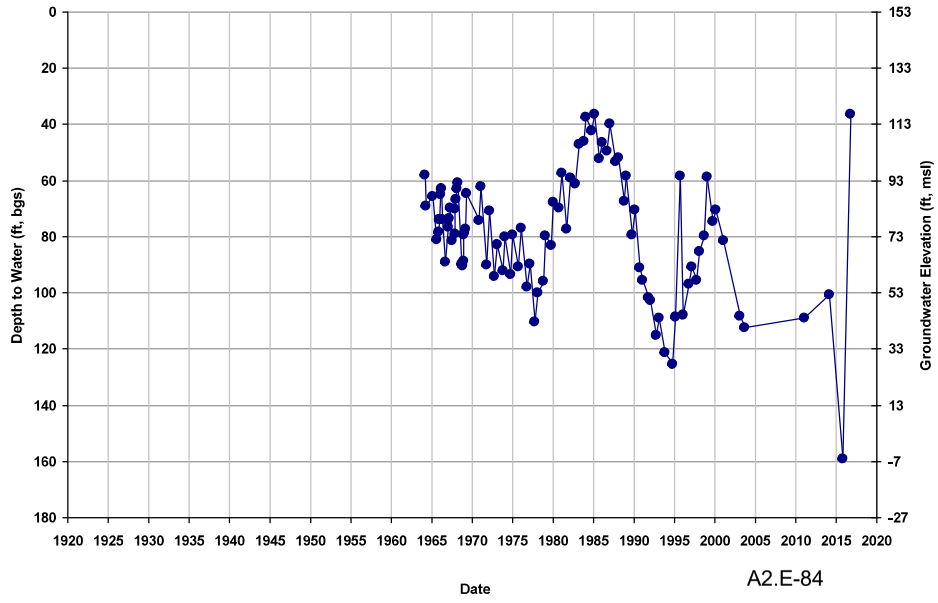
Well ID: 10S14E34H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 150
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



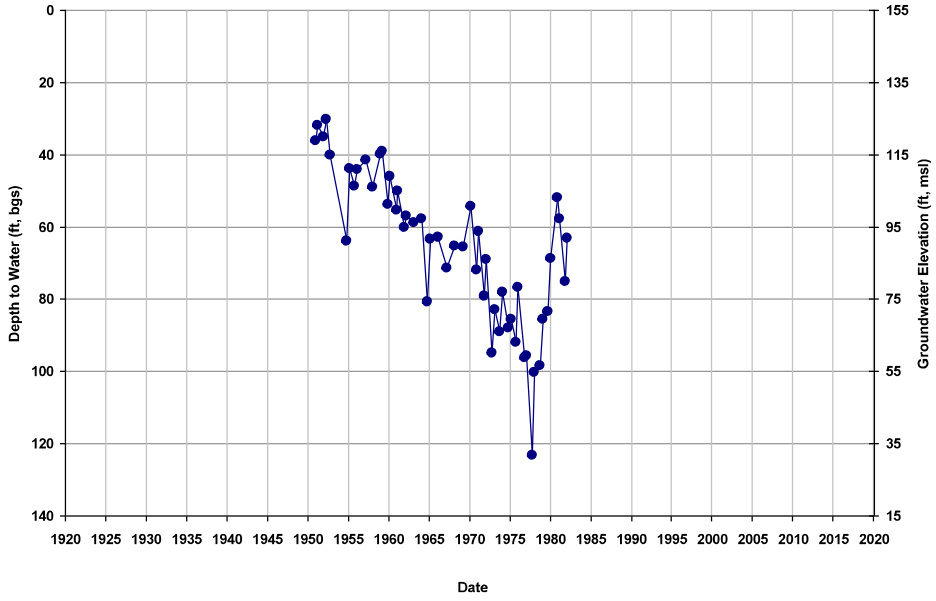
Well ID: 10S14E35F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 153
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



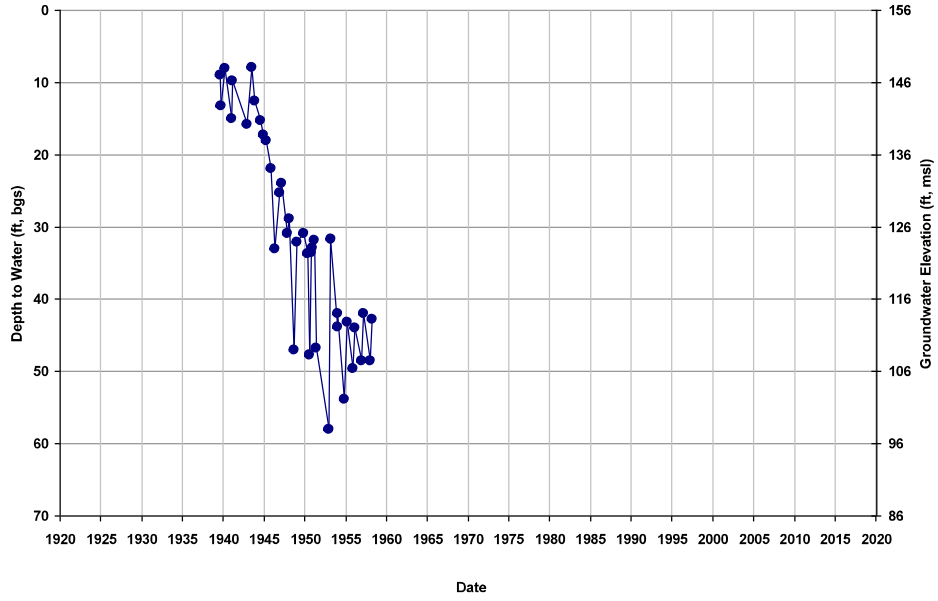
Well ID: 10S14E35K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 155
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



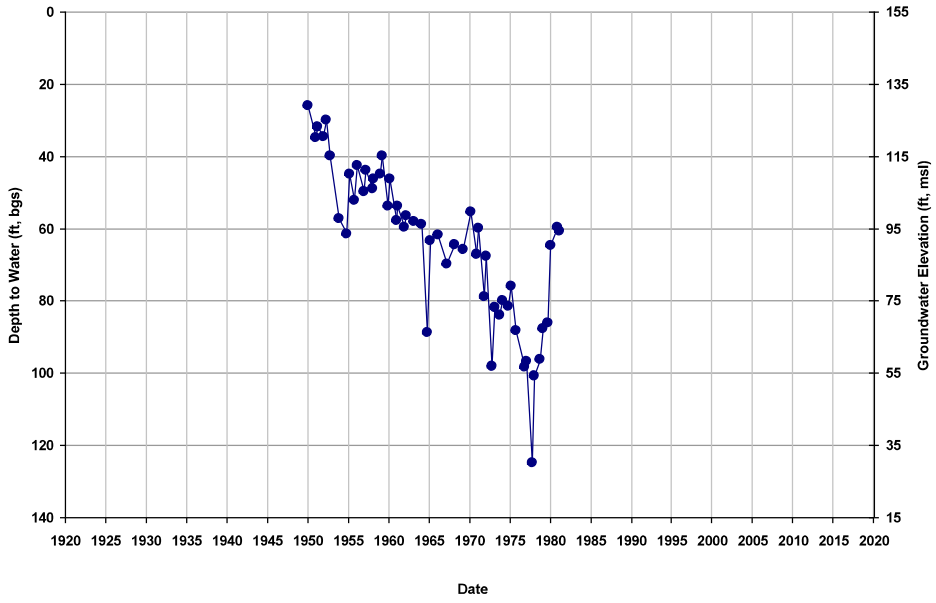
Well ID: 10S14E35K002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 155
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



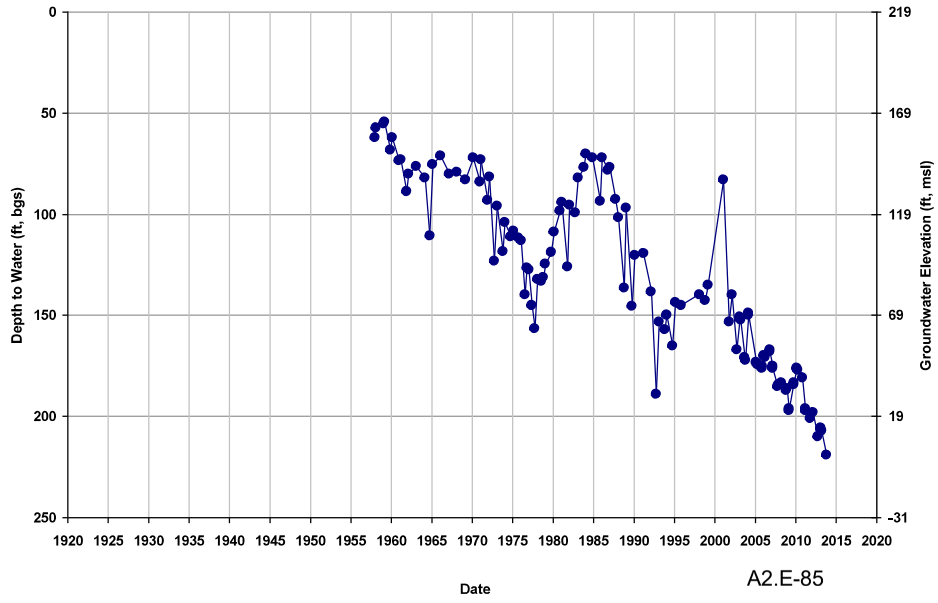
Well ID: 10S14E35L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 155
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



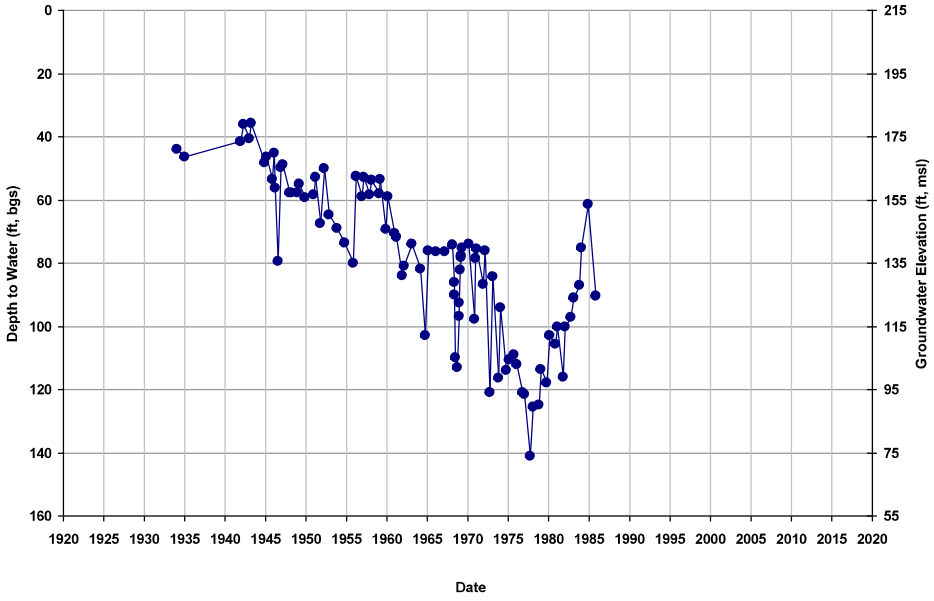
Well ID: 10S15E01E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 218
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



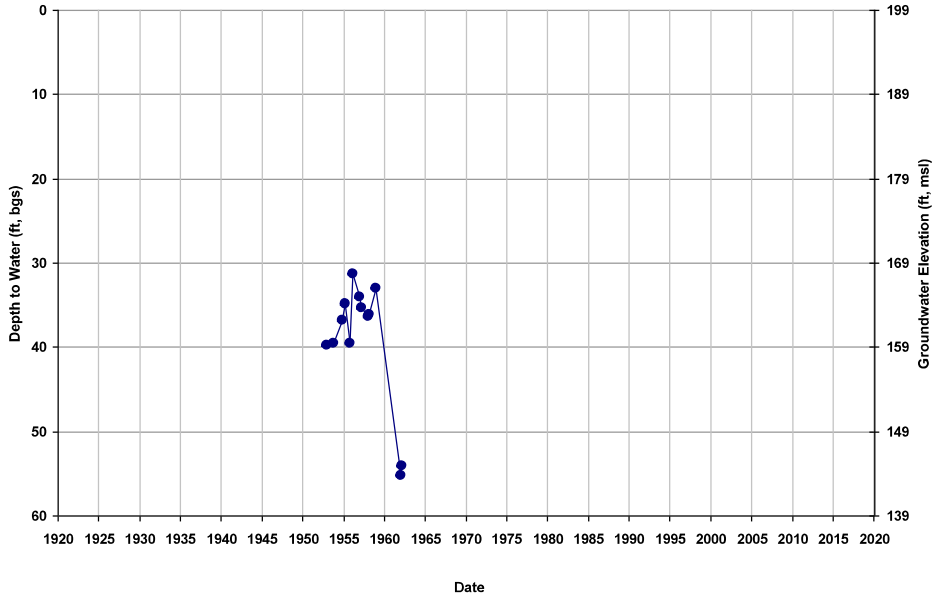
Well ID: 10S15E02Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 214
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



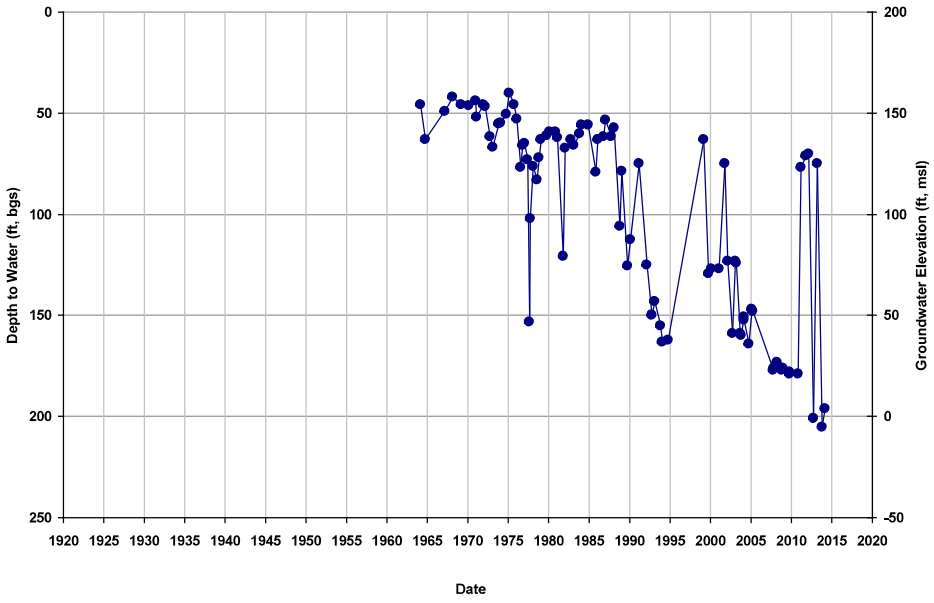
Well ID: 10S15E03E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 199
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



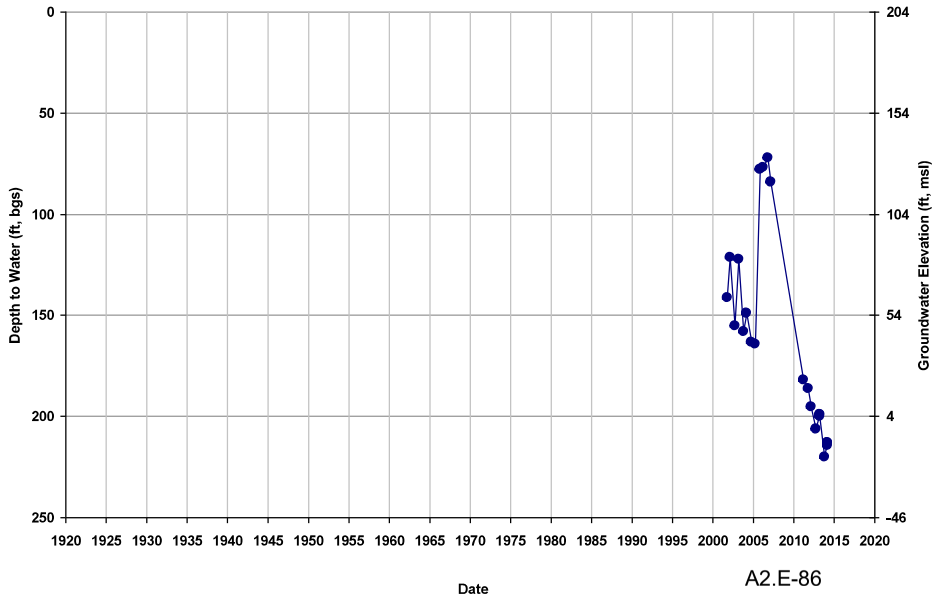
Well ID: 10S15E03E002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 200
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



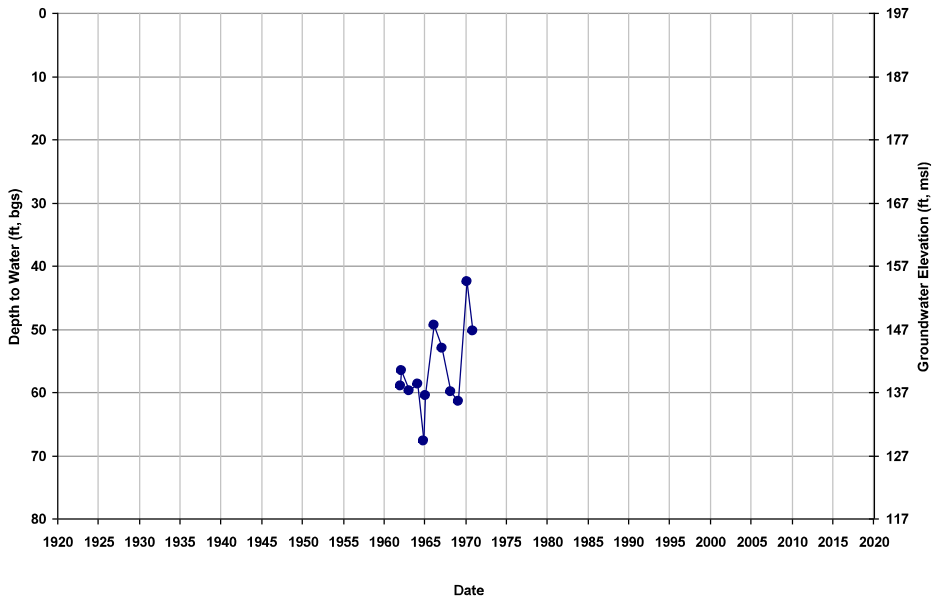
Well ID: 10S15E03L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 204
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



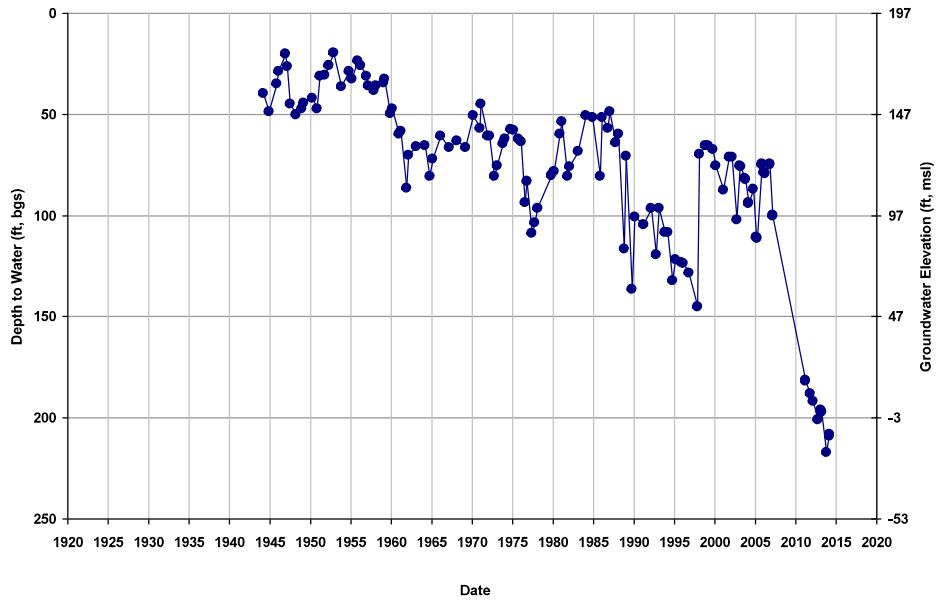
Well ID: 10S15E04K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



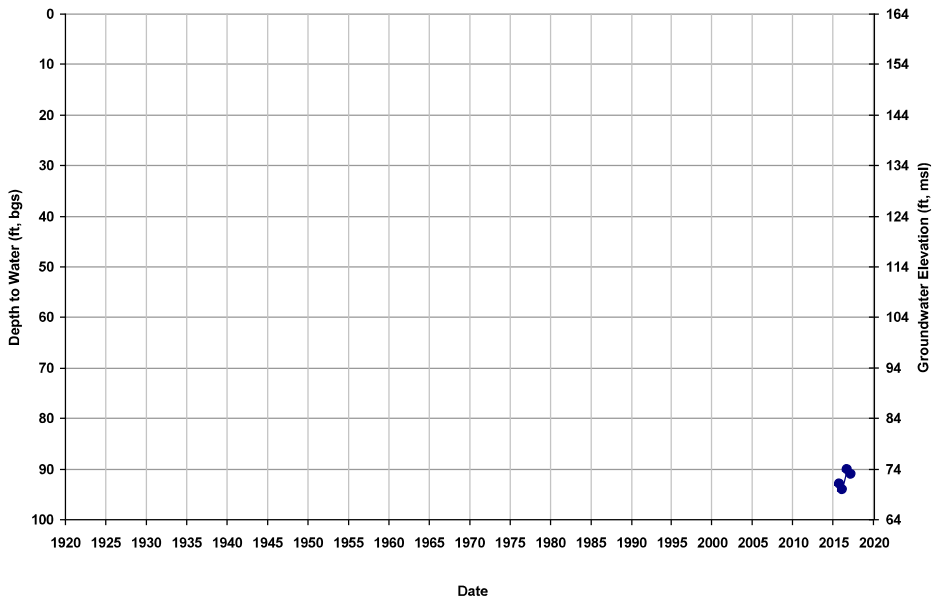
Well ID: 10S15E05B001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



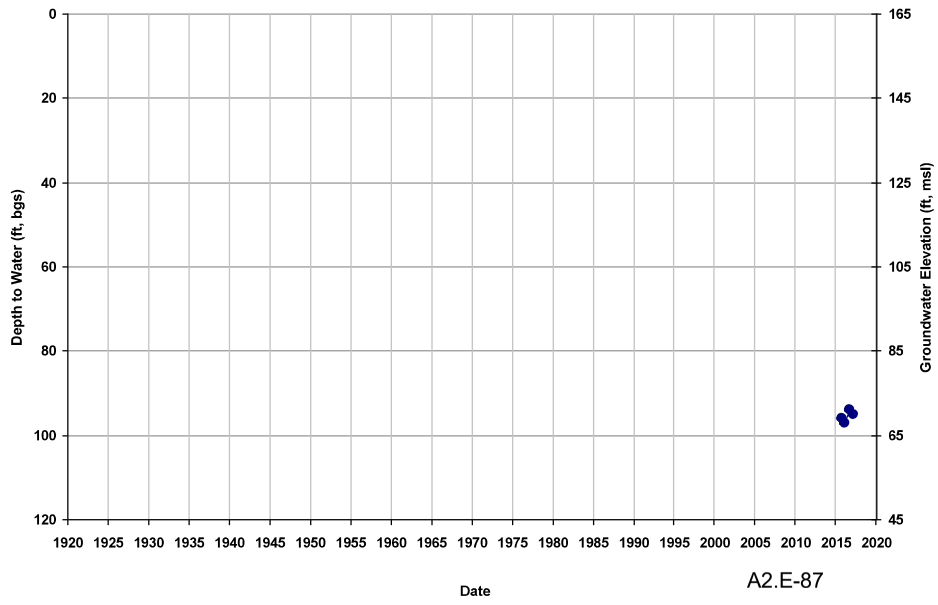
Well ID: 10S15E05J-1
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 164
Total Depth (ft): 97
Perf Top (ft): 82
Perf Bottom (ft): 97



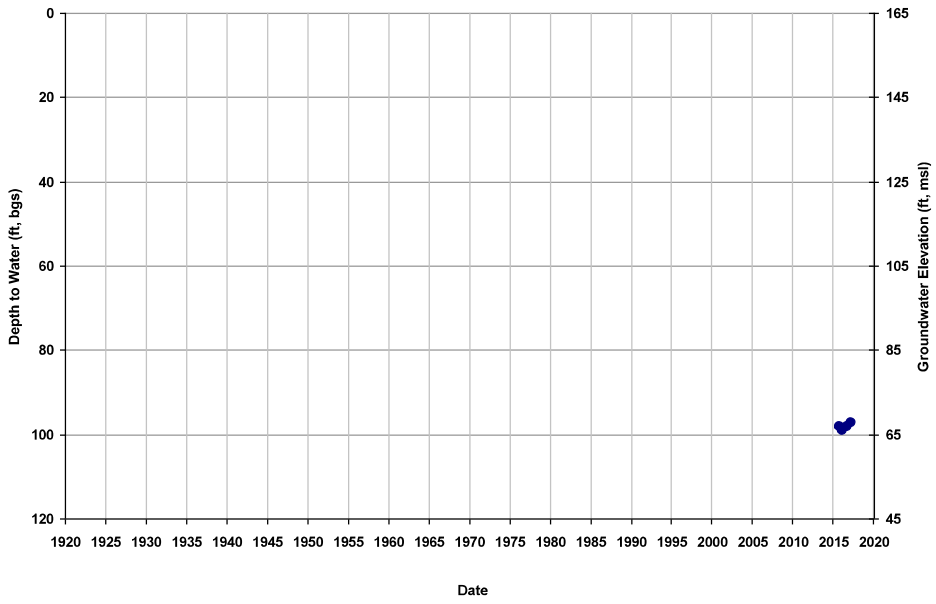
Well ID: 10S15E05J-2
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 165
Total Depth (ft): 104
Perf Top (ft): 84
Perf Bottom (ft): 104



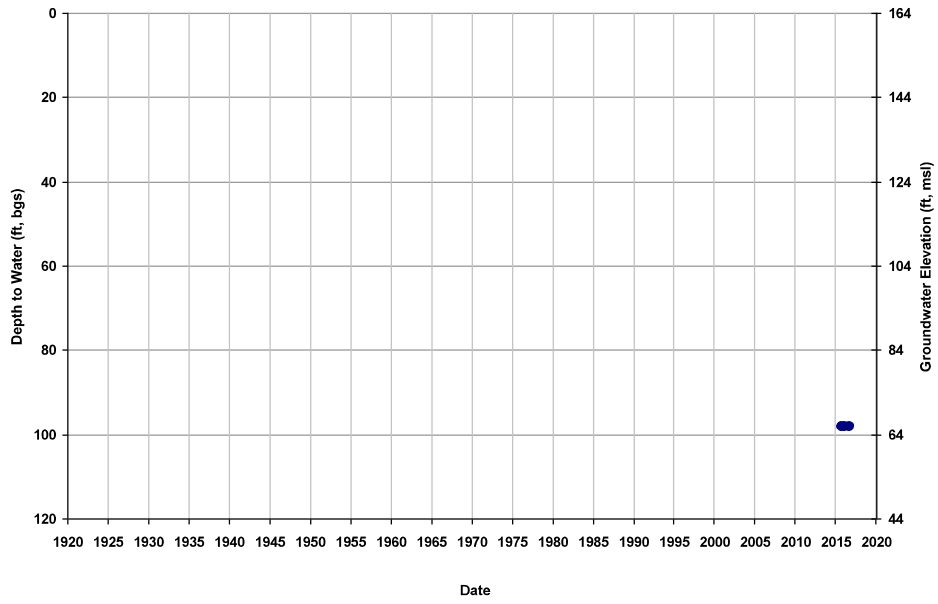
Well ID: 10S15E05K
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 165
Total Depth (ft): 105
Perf Top (ft): 85
Perf Bottom (ft): 105



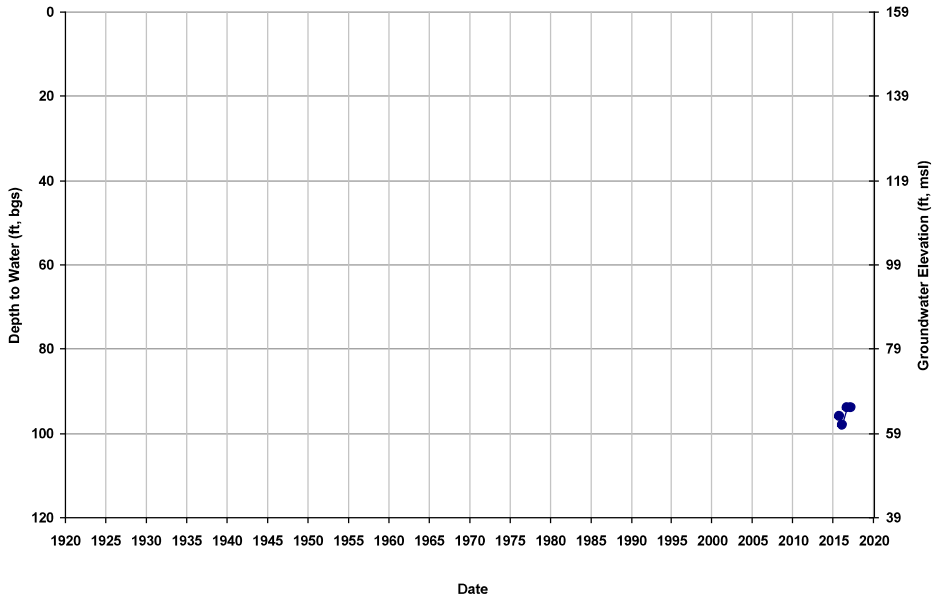
Well ID: 10S15E05Q
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 164
Total Depth (ft): 100
Perf Top (ft): 80
Perf Bottom (ft): 100



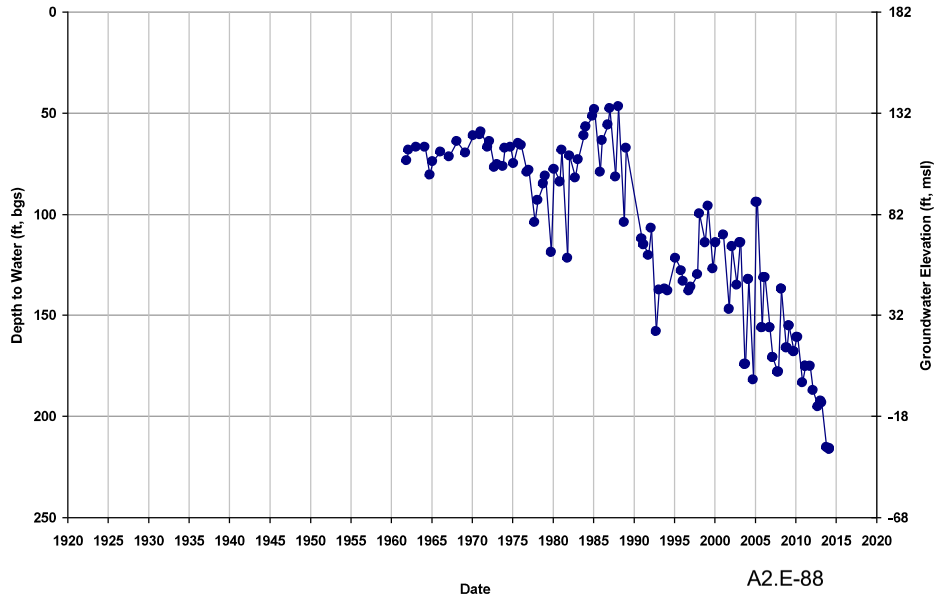
Well ID: 10S15E05R
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): 100
Perf Top (ft): 80
Perf Bottom (ft): 100



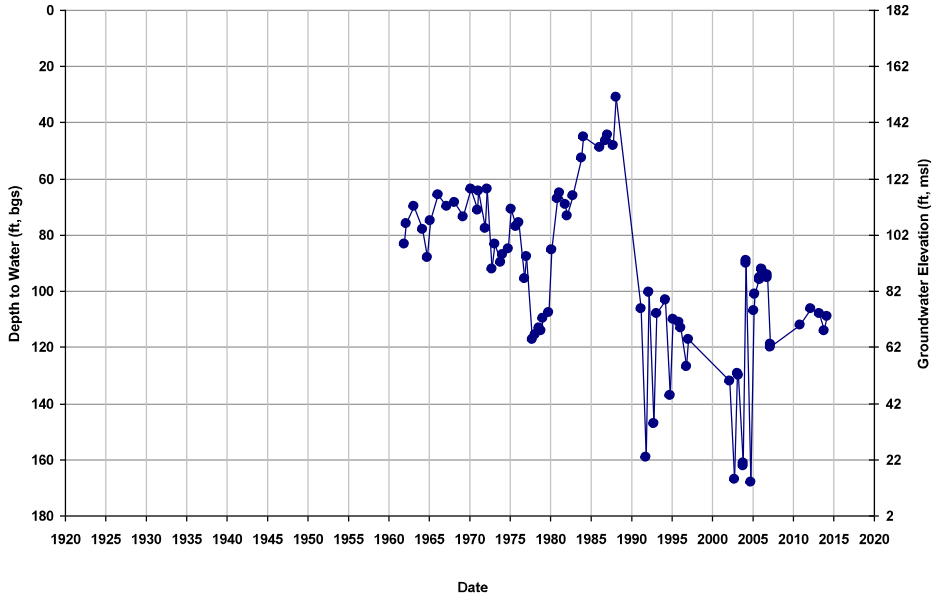
Well ID: 10S15E06L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 182
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



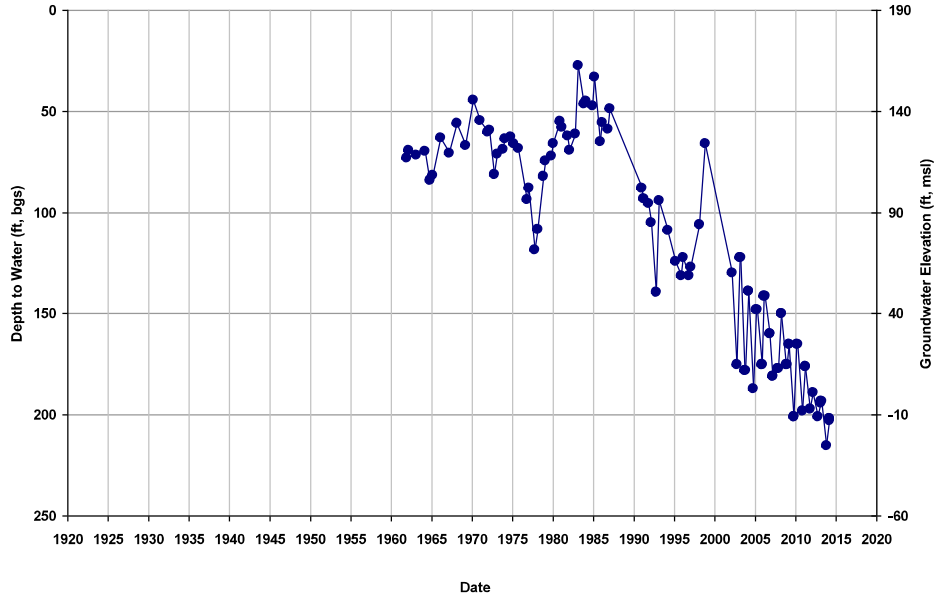
Well ID: 10S15E07Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 182
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



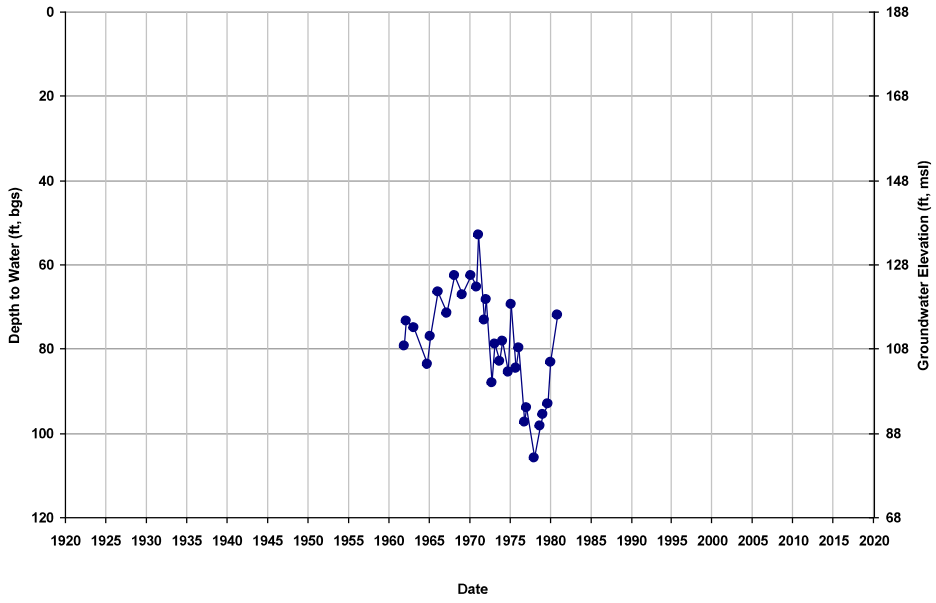
Well ID: 10S15E08C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 190
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



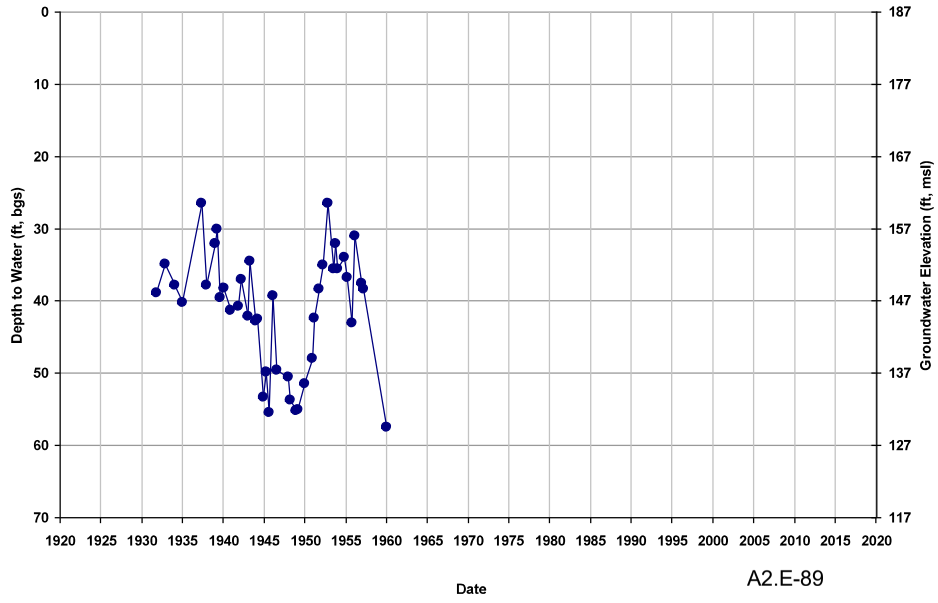
Well ID: 10S15E08K002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 188
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



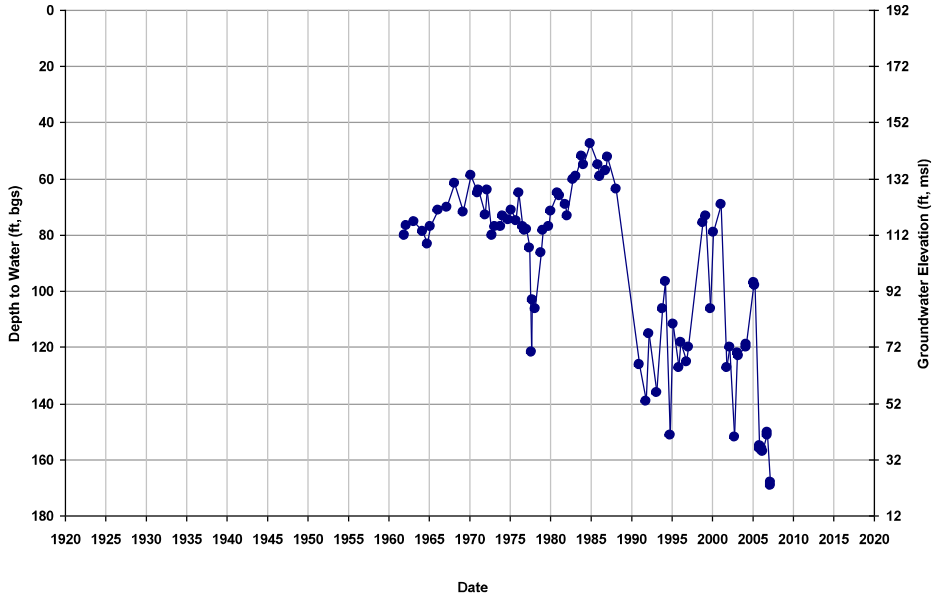
Well ID: 10S15E08L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 186
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



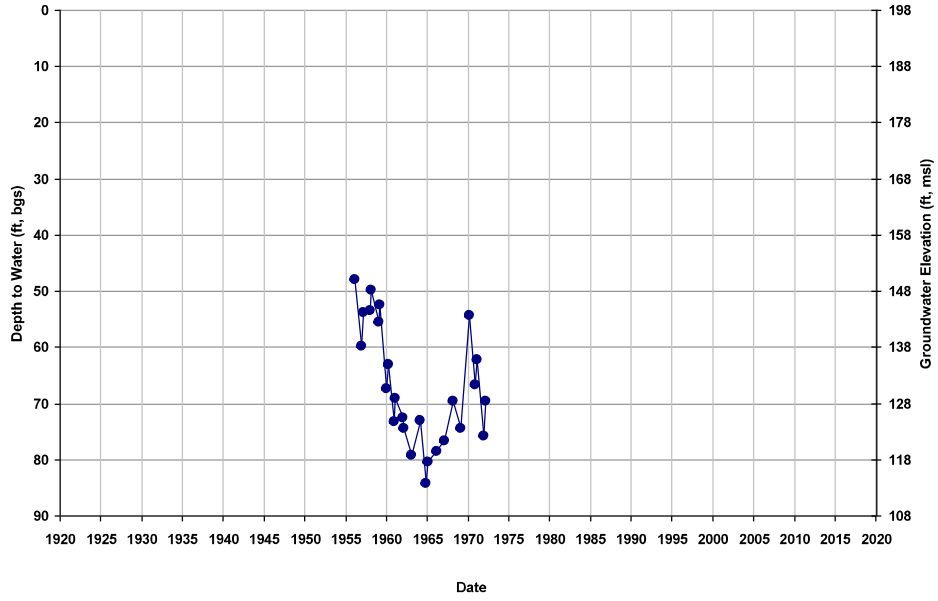
Well ID: 10S15E09M001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 192
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



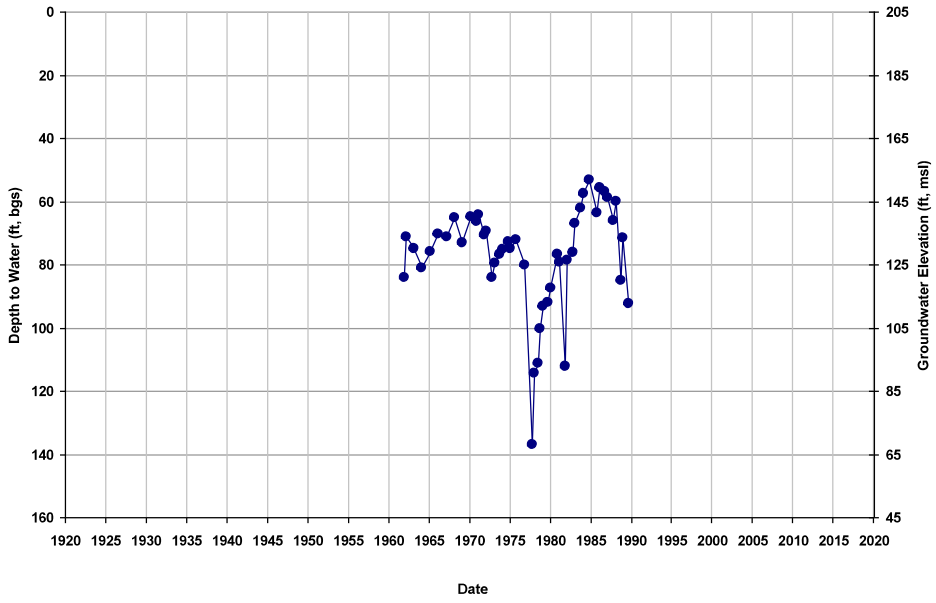
Well ID: 10S15E09R003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



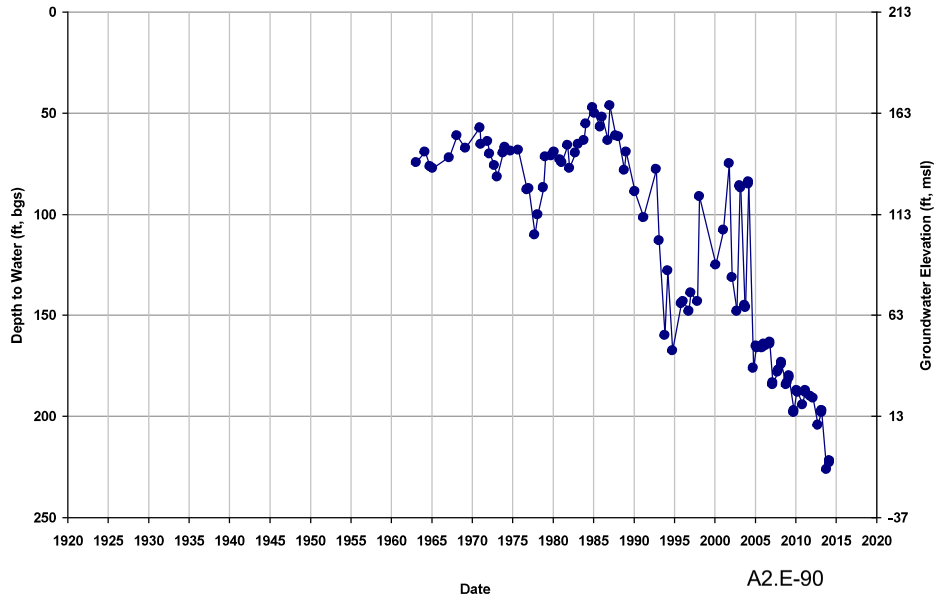
Well ID: 10S15E10K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 205
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



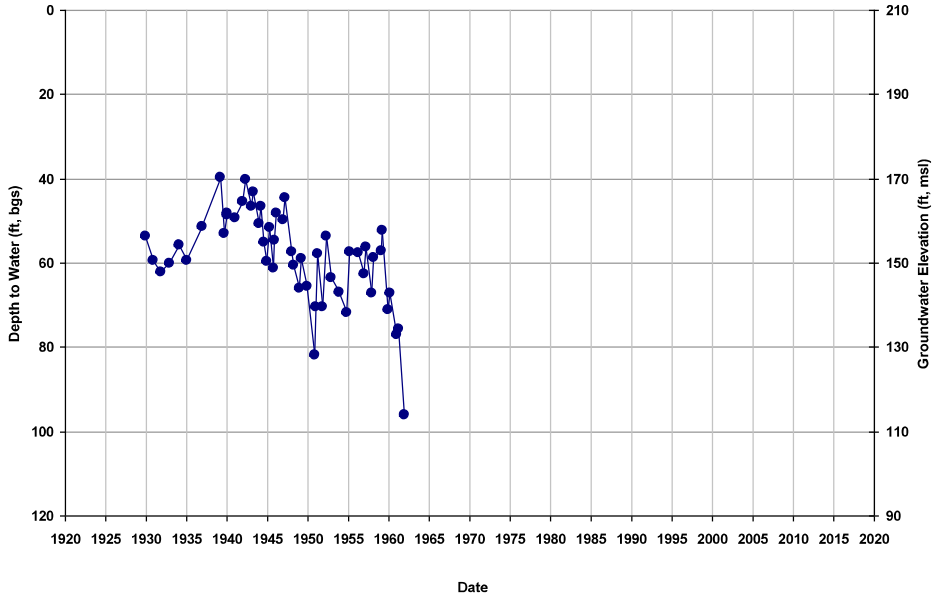
Well ID: 10S15E11H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 213
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



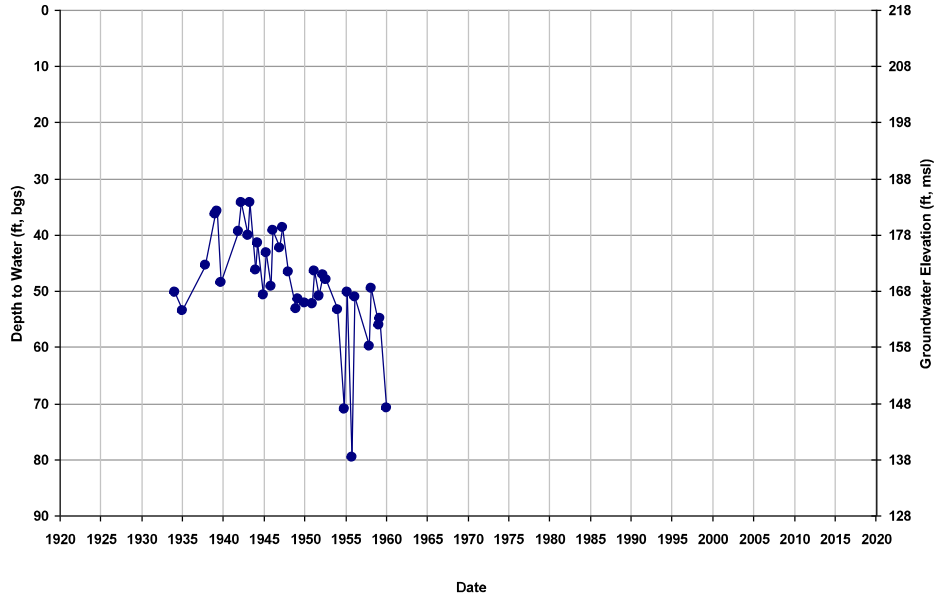
Well ID: 10S15E11R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 209
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



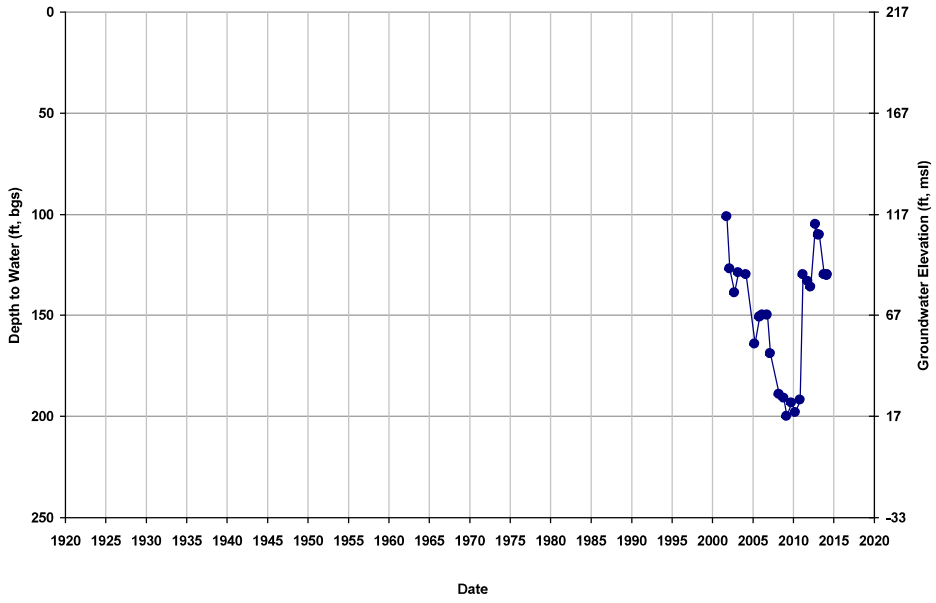
Well ID: 10S15E12C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 218
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



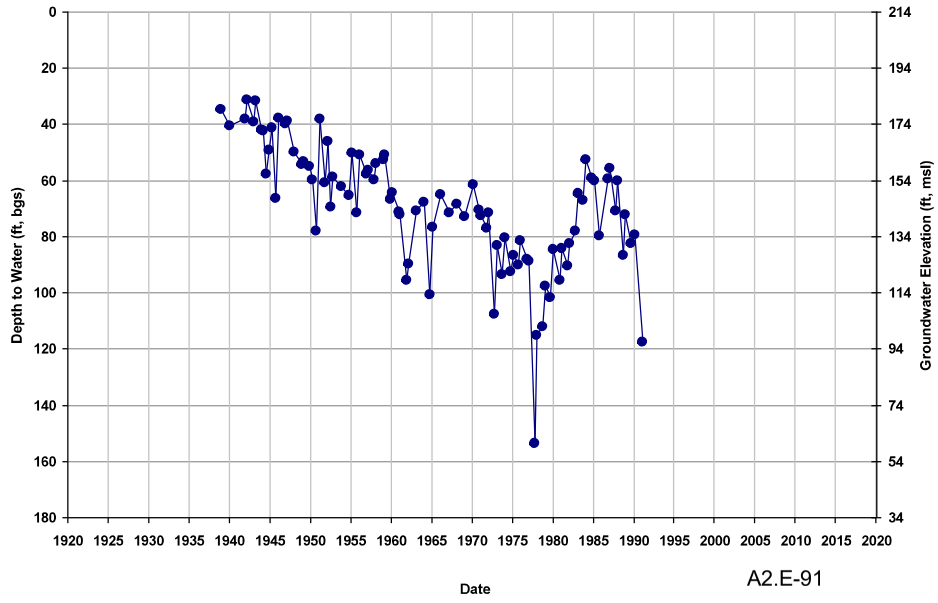
Well ID: 10S15E12C002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 217
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



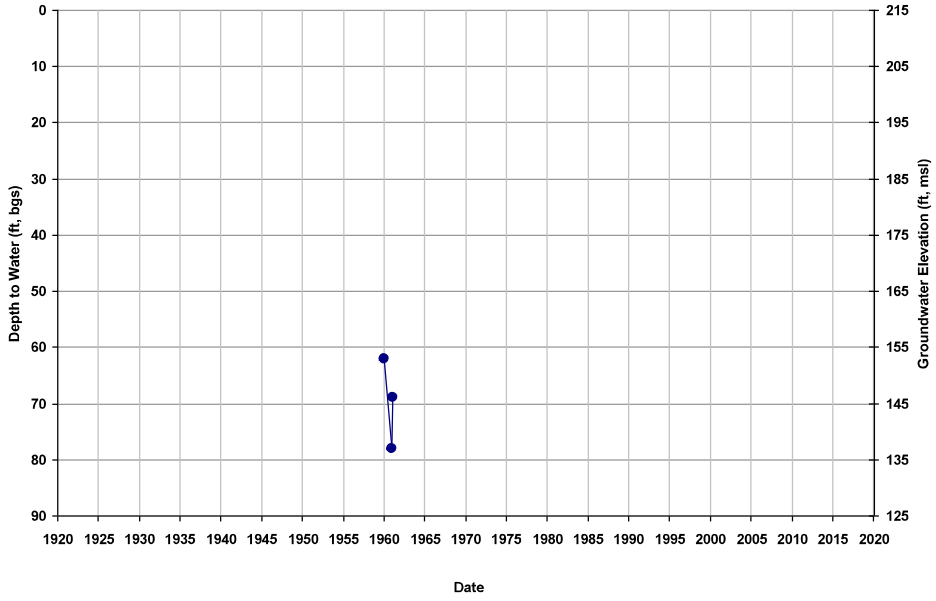
Well ID: 10S15E12P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 213
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



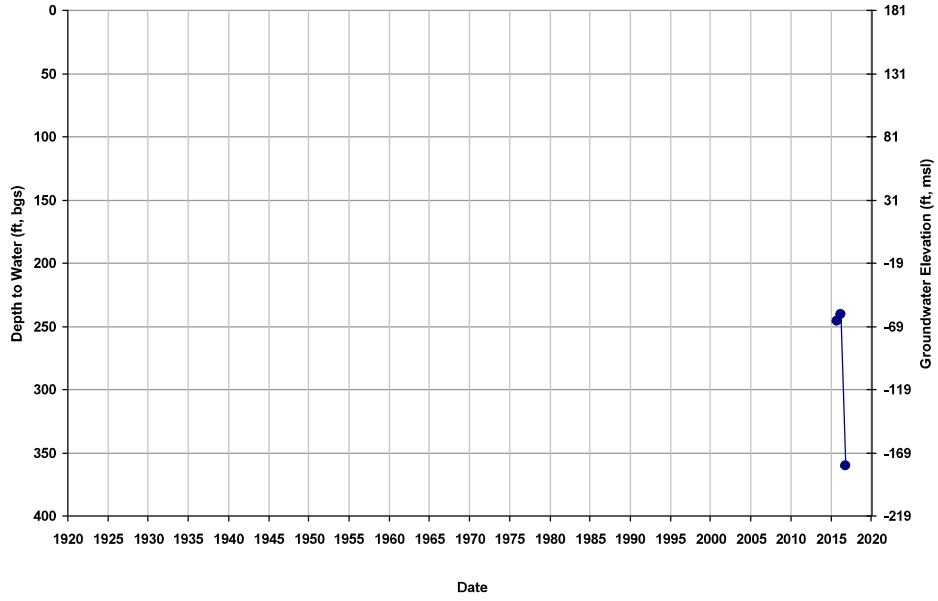
Well ID: 10S15E13A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 215
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



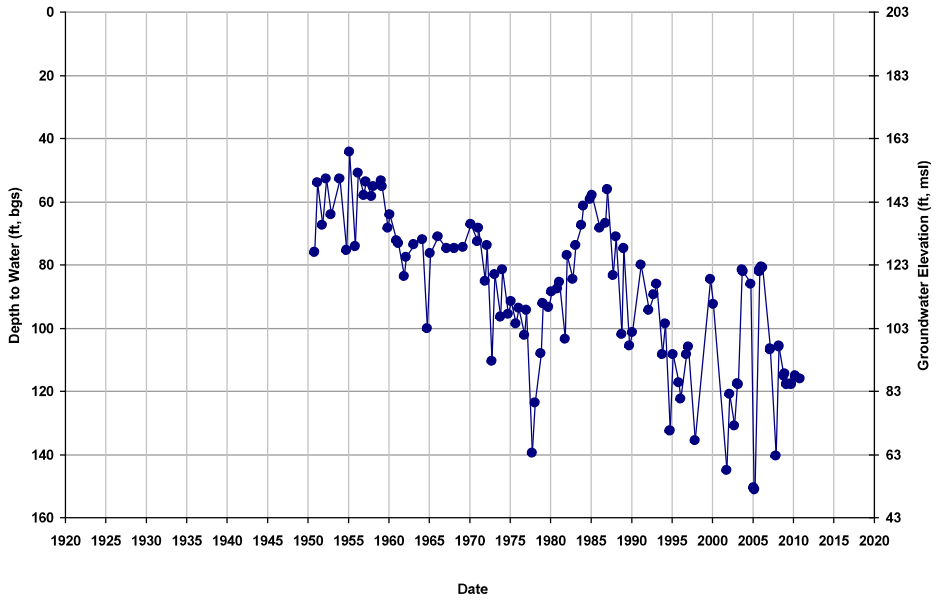
Well ID: 10S15E13F
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 180
Total Depth (ft): 390
Perf Top (ft): 150
Perf Bottom (ft): 390



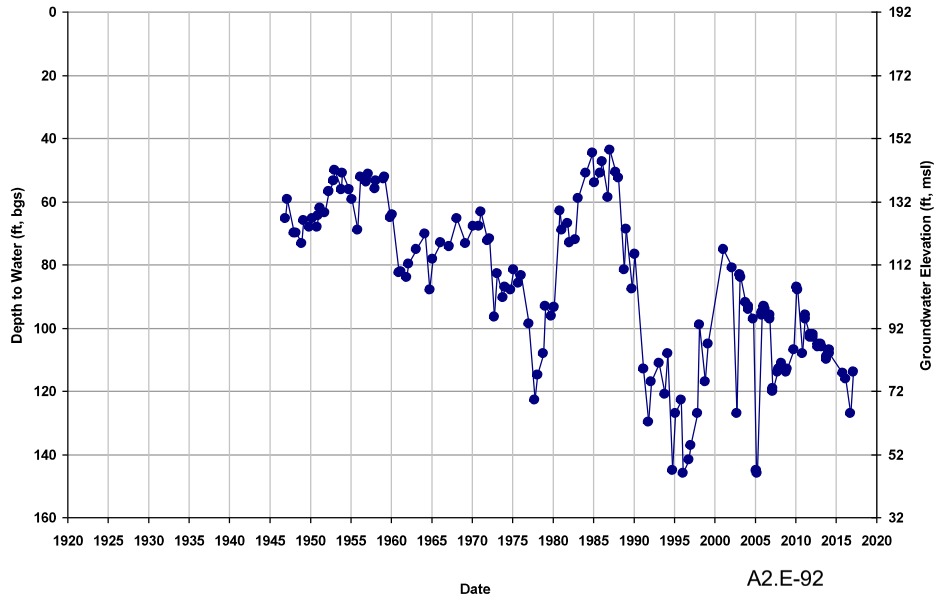
Well ID: 10S15E14D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 203
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



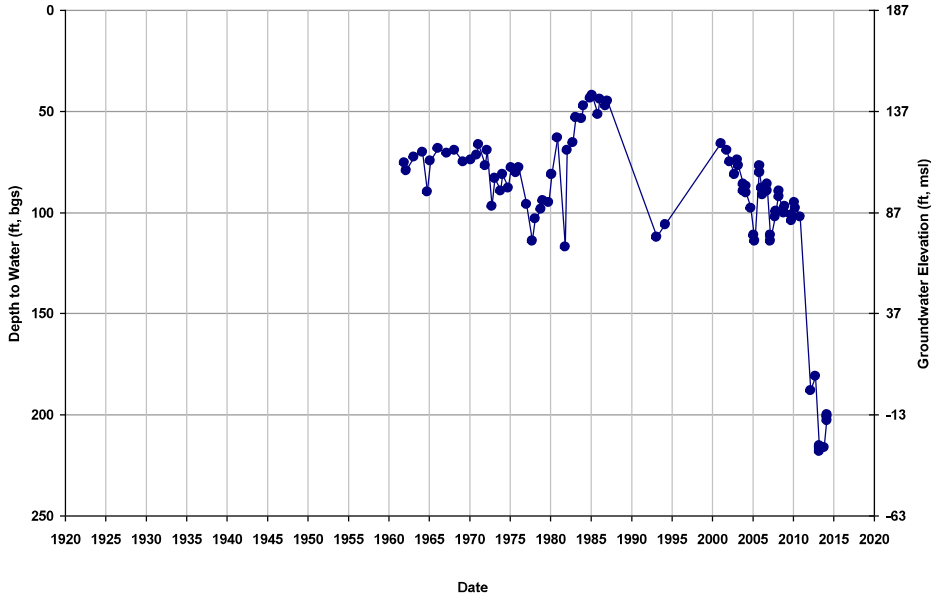
Well ID: 10S15E16R002M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 192
Total Depth (ft): 529
Perf Top (ft): 187
Perf Bottom (ft): 529



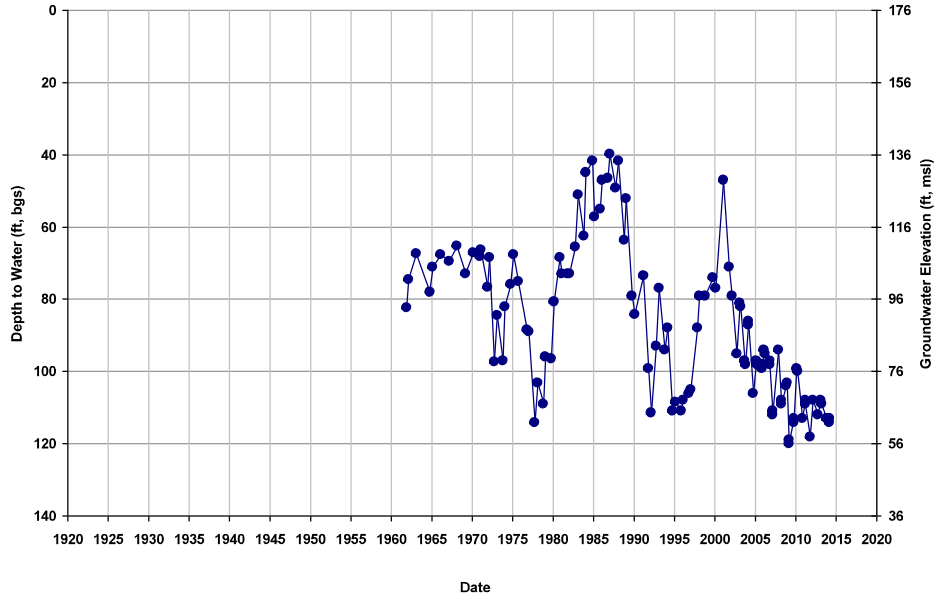
Well ID: 10S15E17G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 187
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



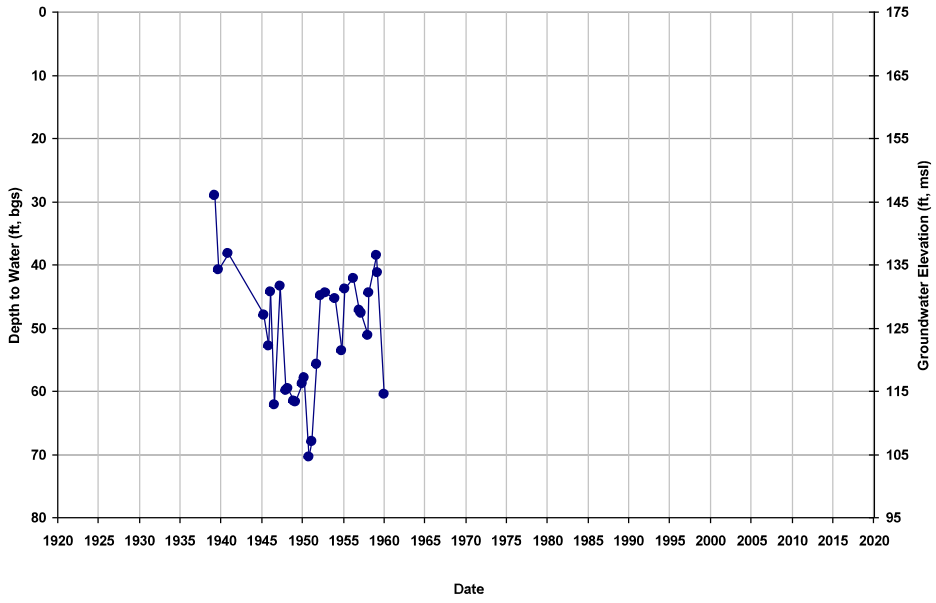
Well ID: 10S15E18L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 176
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



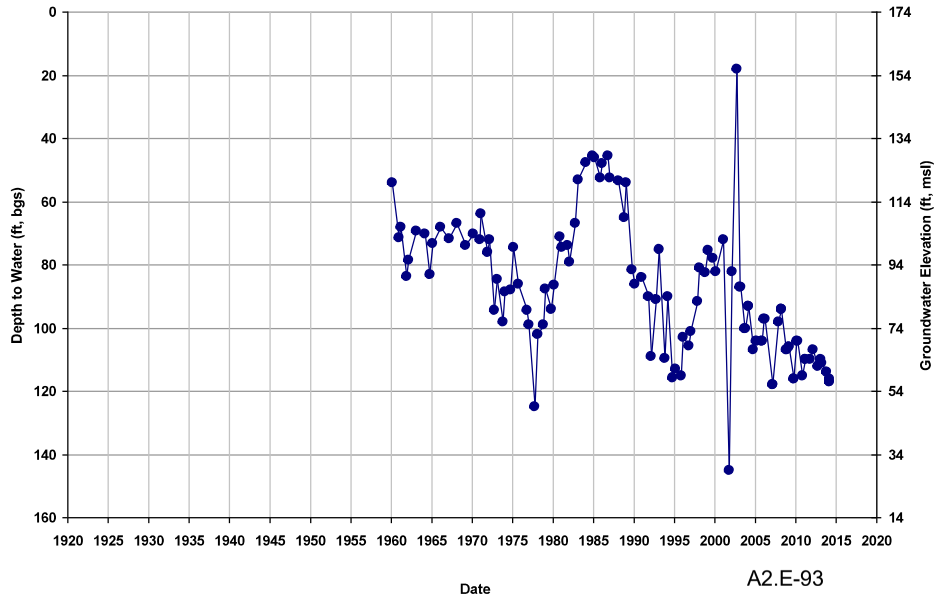
Well ID: 10S15E18M001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 175
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



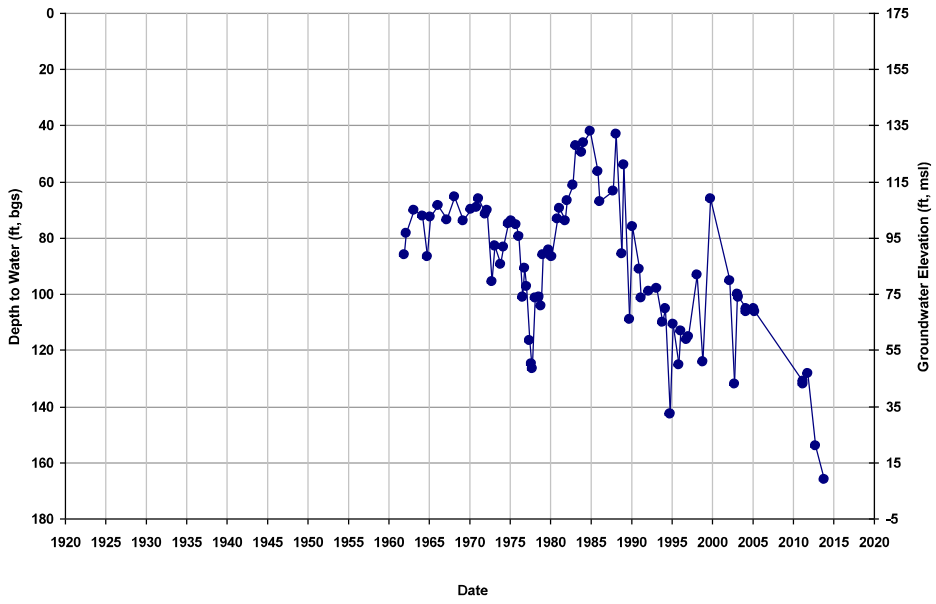
Well ID: 10S15E18M002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 174
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



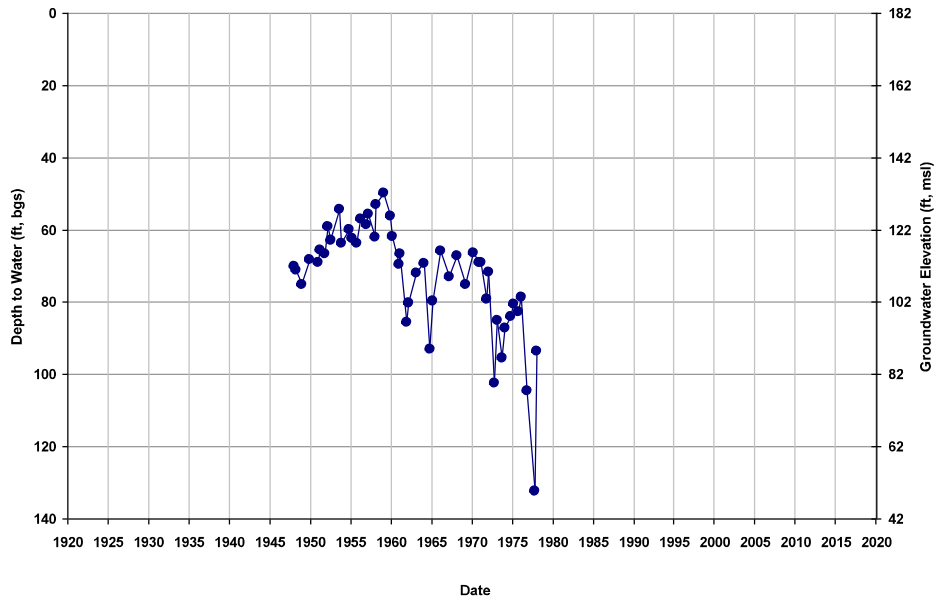
Well ID: 10S15E19F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 175
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



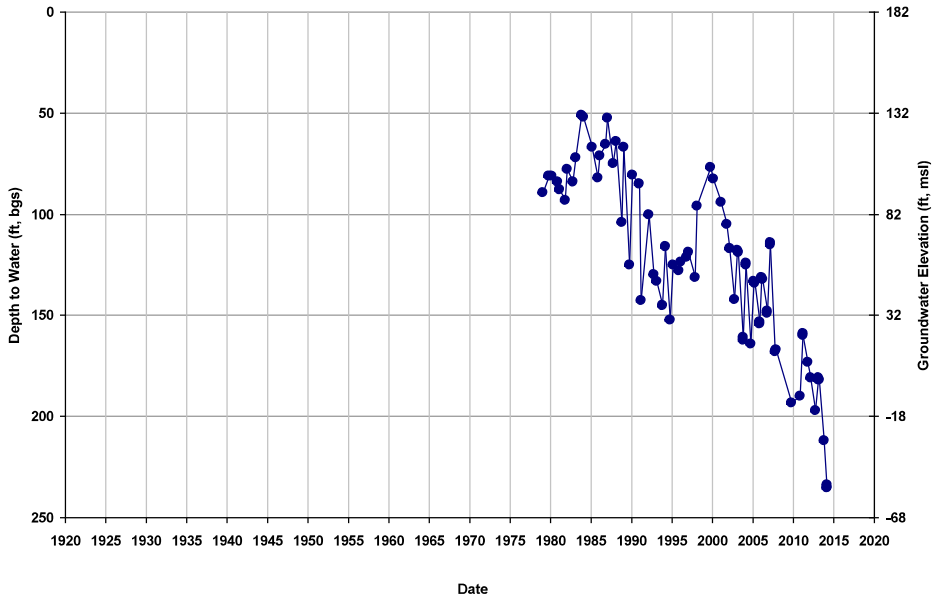
Well ID: 10S15E20C003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 182
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



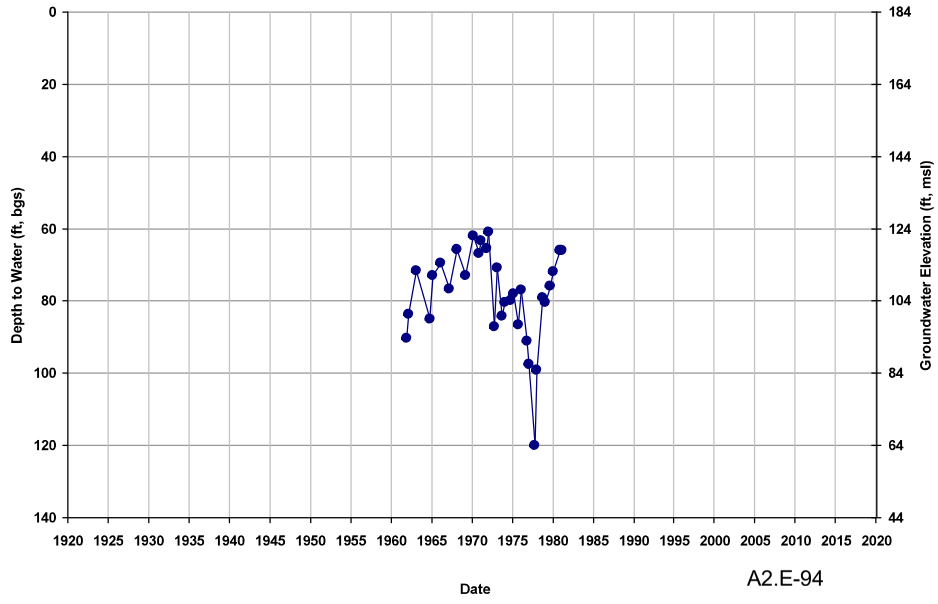
Well ID: 10S15E20C004M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 182
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



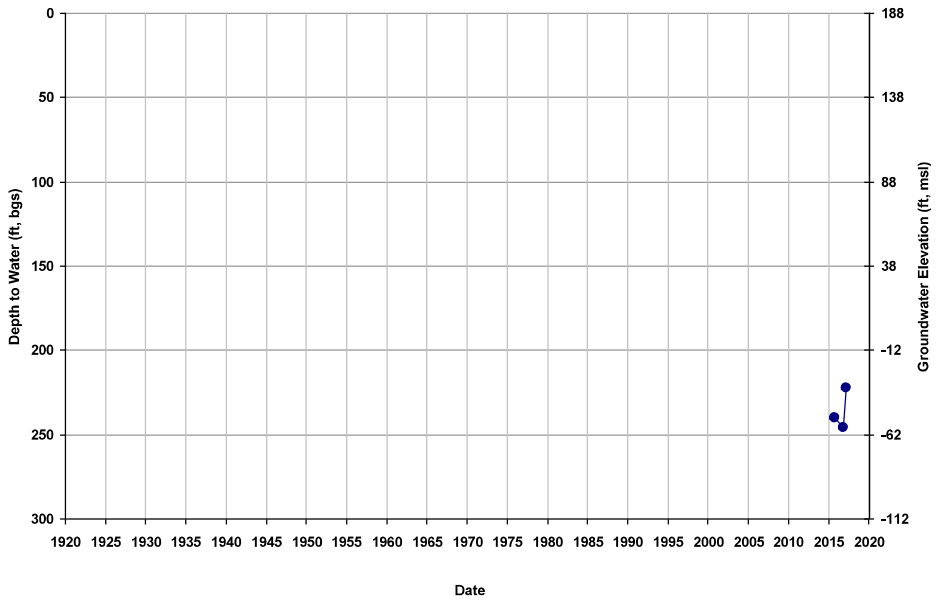
Well ID: 10S15E21F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 184
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



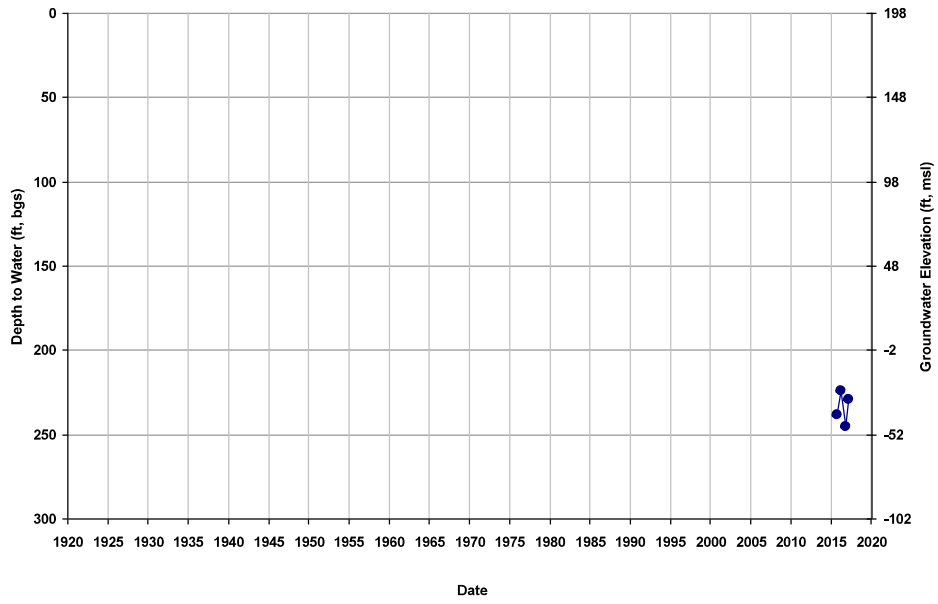
Well ID: 10S15E21R001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 188
Total Depth (ft): 600
Perf Top (ft): 280
Perf Bottom (ft): 600



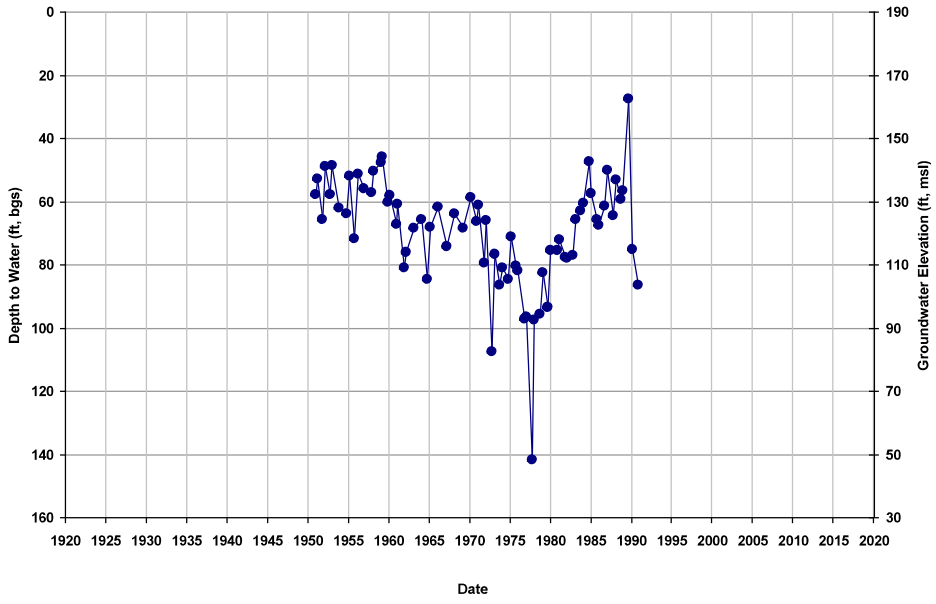
Well ID: 10S15E22D
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 198
Total Depth (ft): 800
Perf Top (ft): 360
Perf Bottom (ft): 800



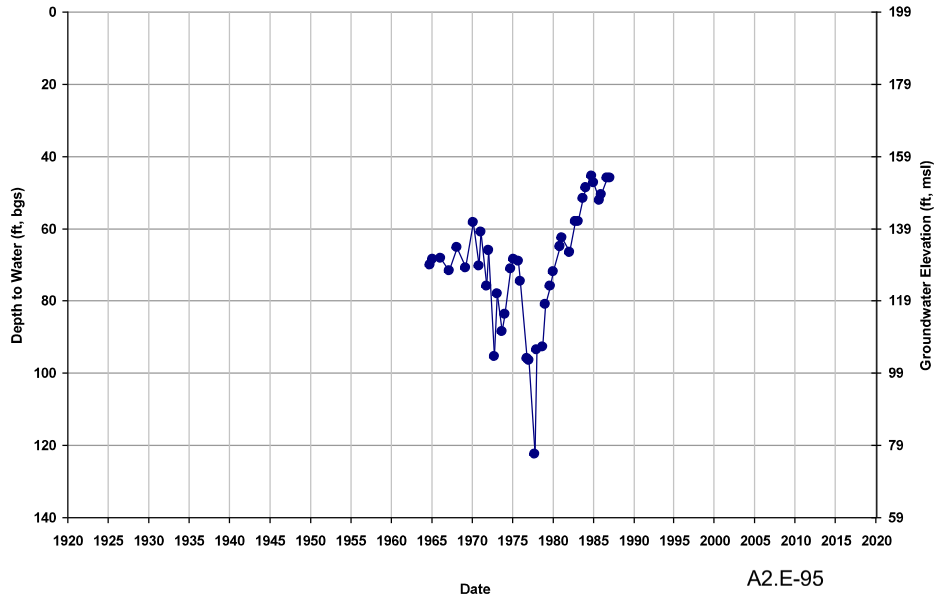
Well ID: 10S15E22K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 190
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



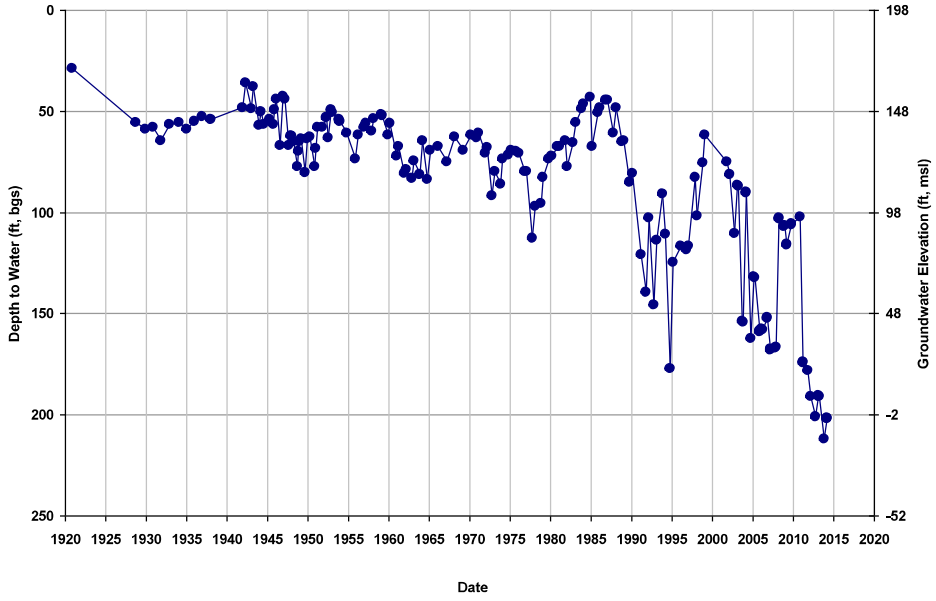
Well ID: 10S15E23C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 199
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



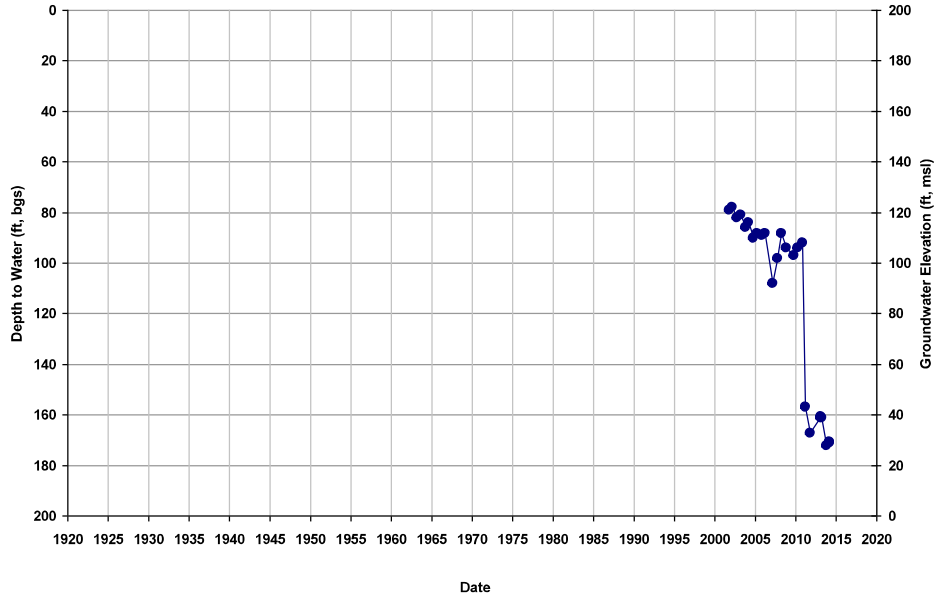
Well ID: 10S15E23K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



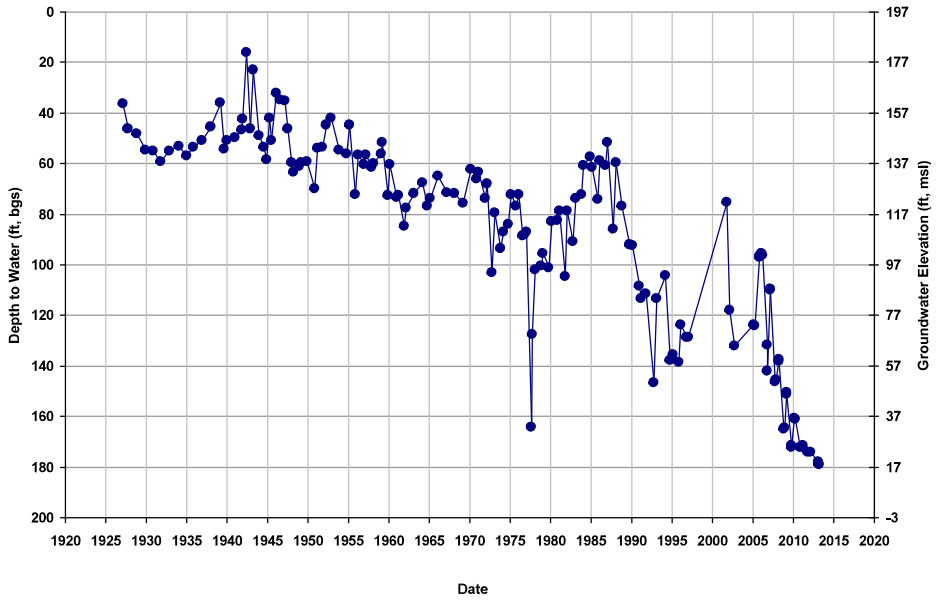
Well ID: 10S15E25A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 200
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



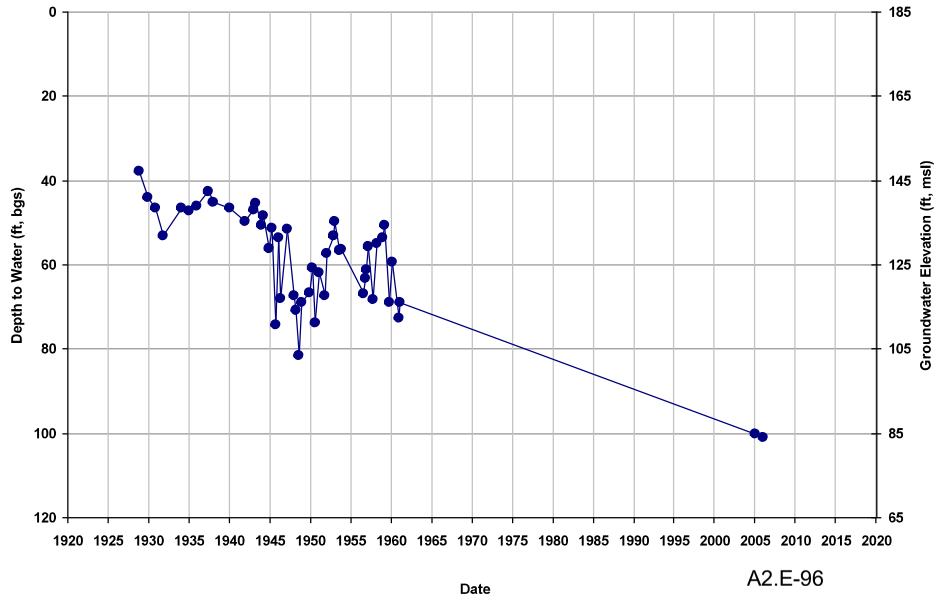
Well ID: 10S15E26A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 197
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



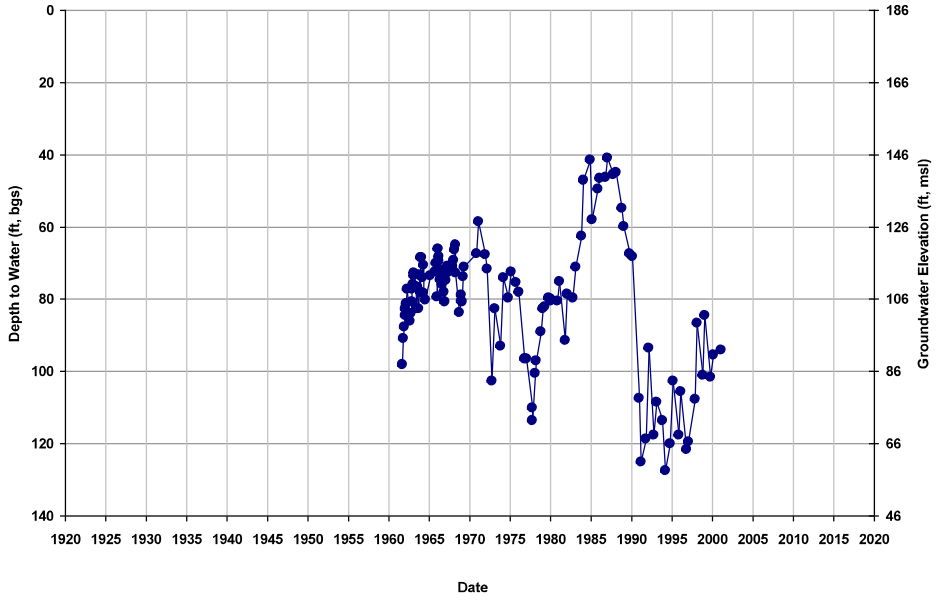
Well ID: 10S15E27D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 185
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



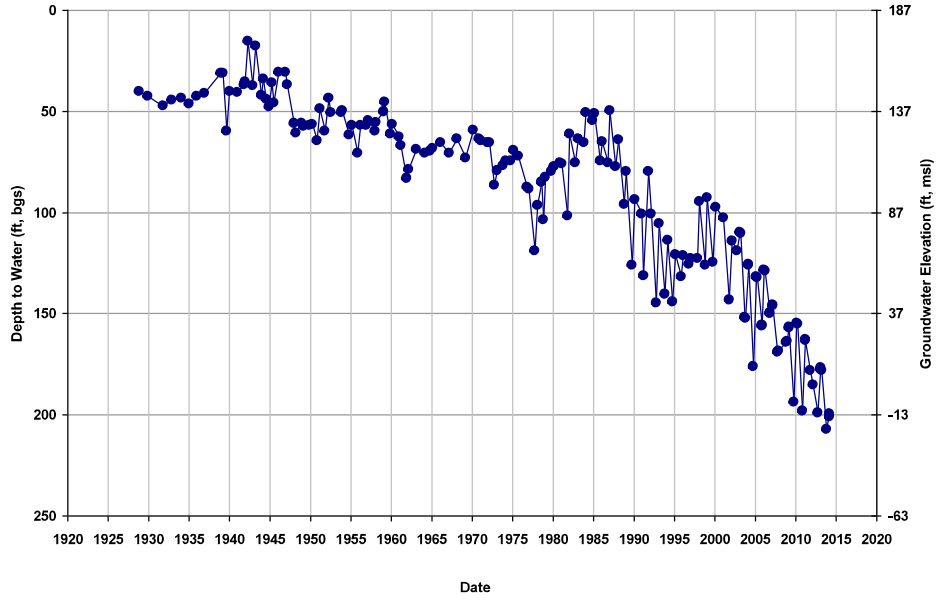
Well ID: 10S15E27D003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 186
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



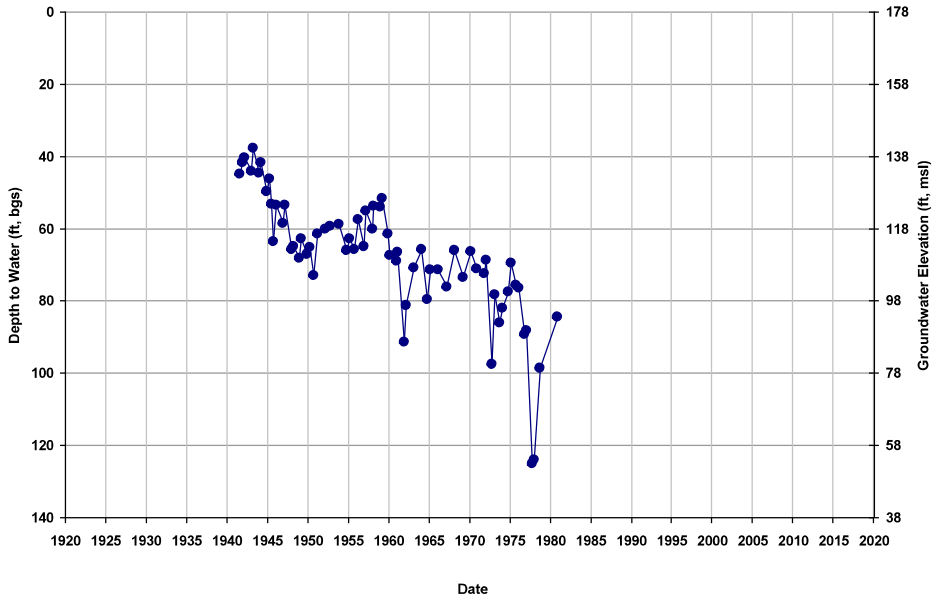
Well ID: 10S15E27R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 187
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



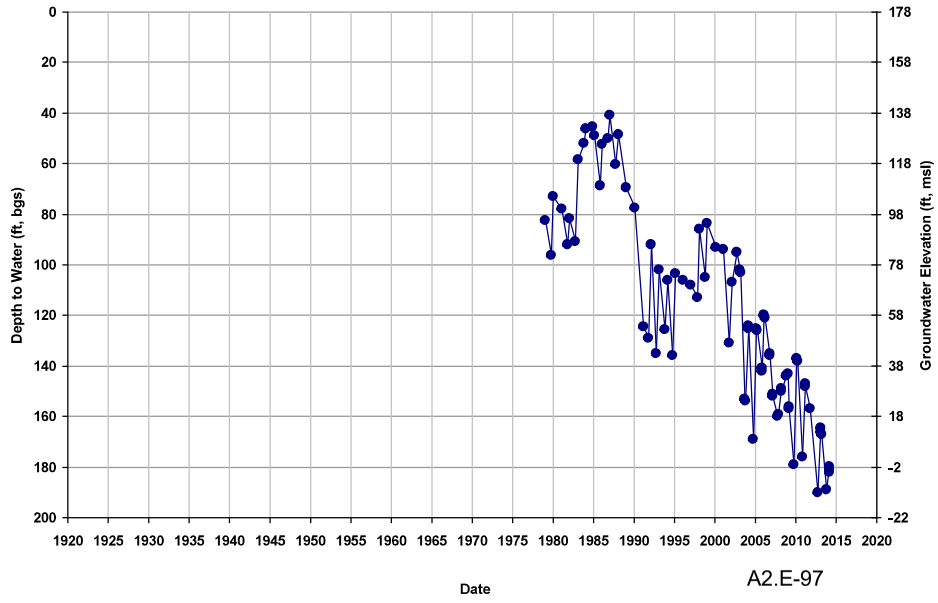
Well ID: 10S15E29A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 178
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



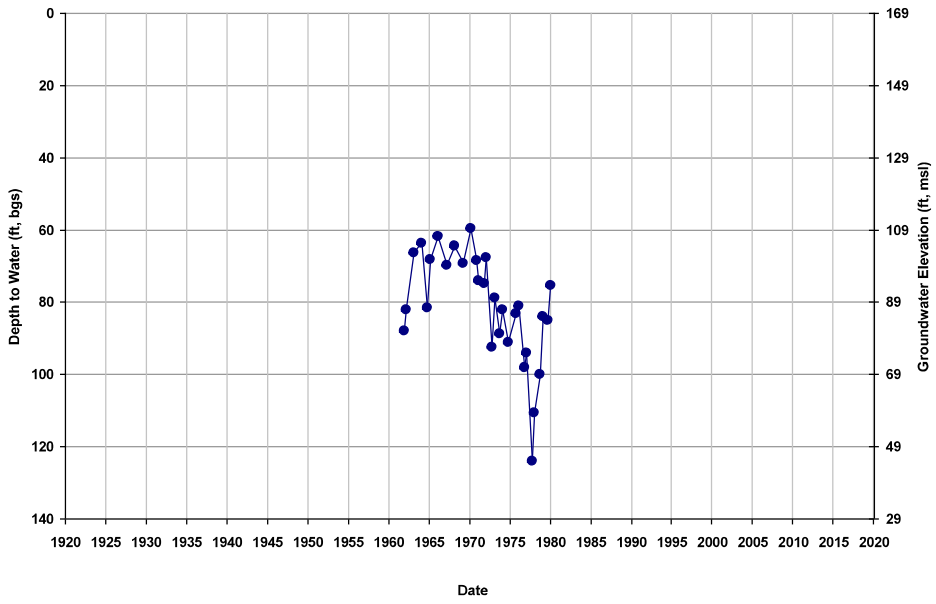
Well ID: 10S15E29A002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 178
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



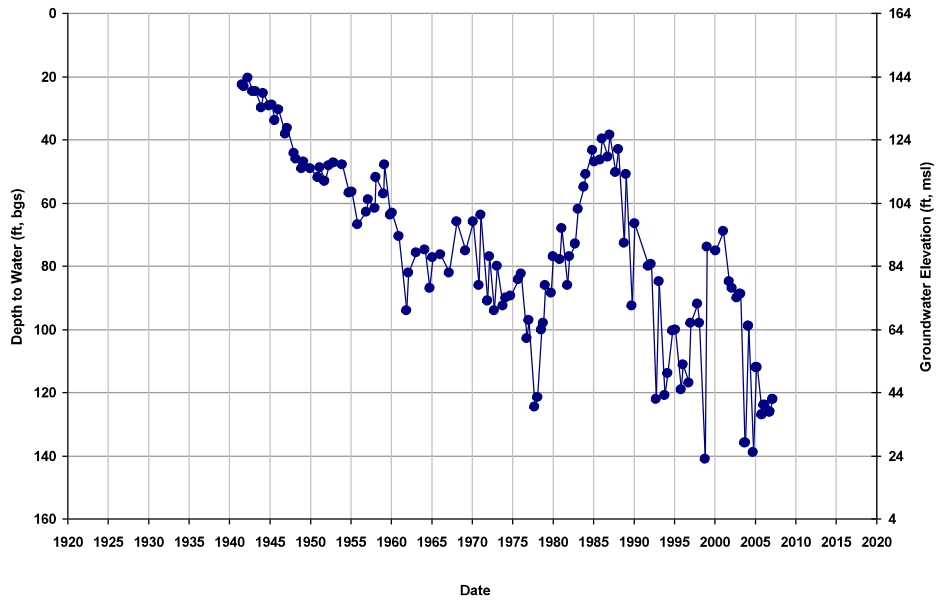
Well ID: 10S15E30J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 169
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



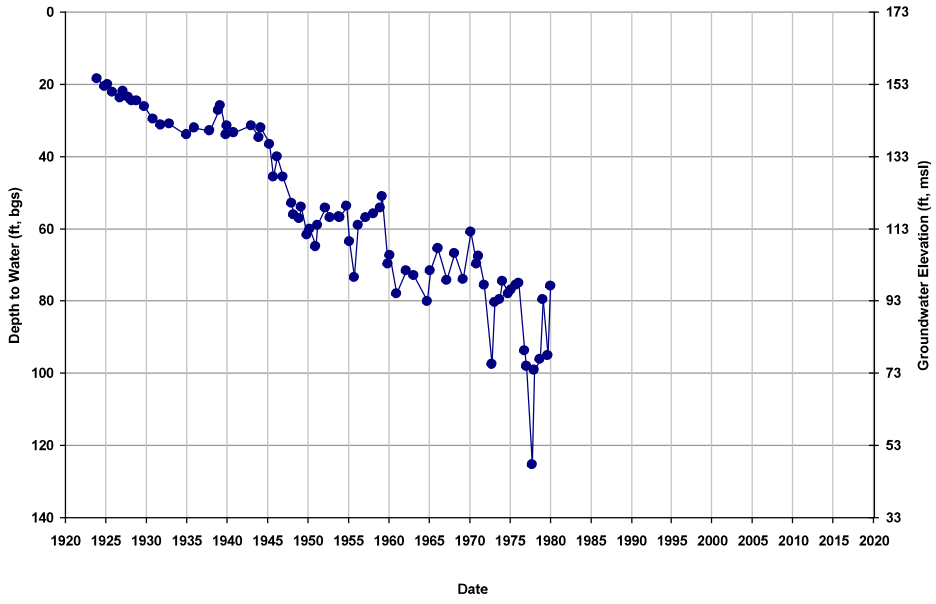
Well ID: 10S15E31C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 164
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



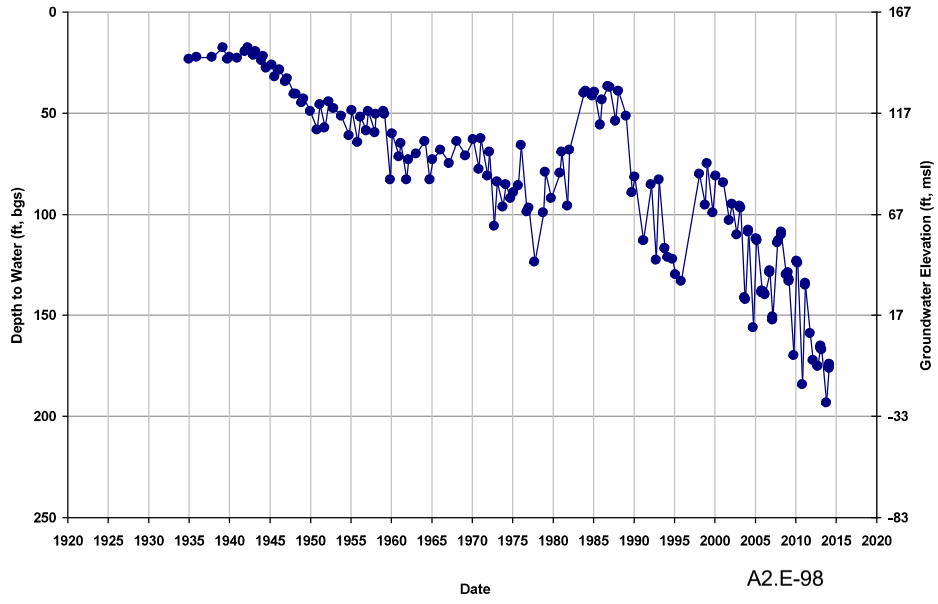
Well ID: 10S15E32A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 172
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



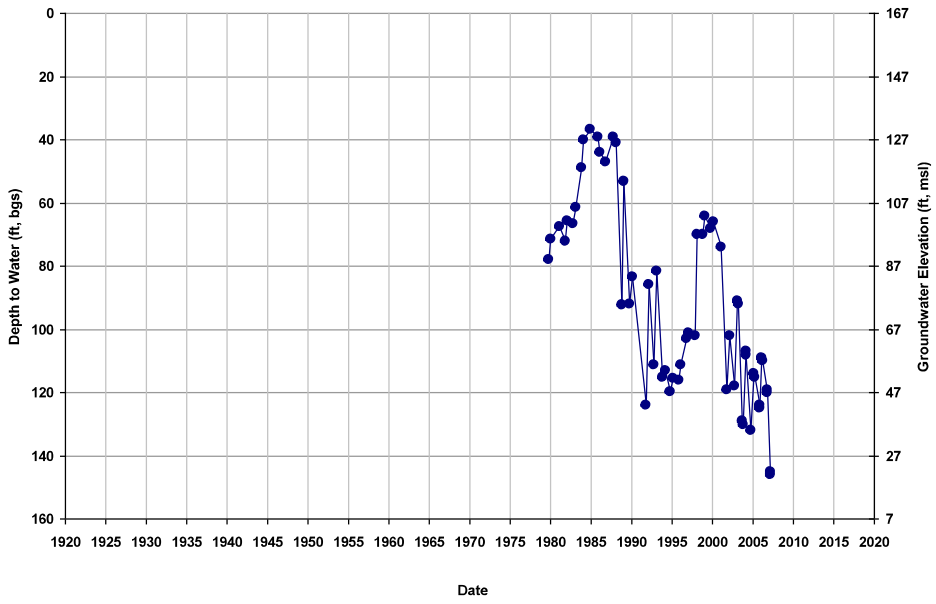
Well ID: 10S15E32L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 166
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



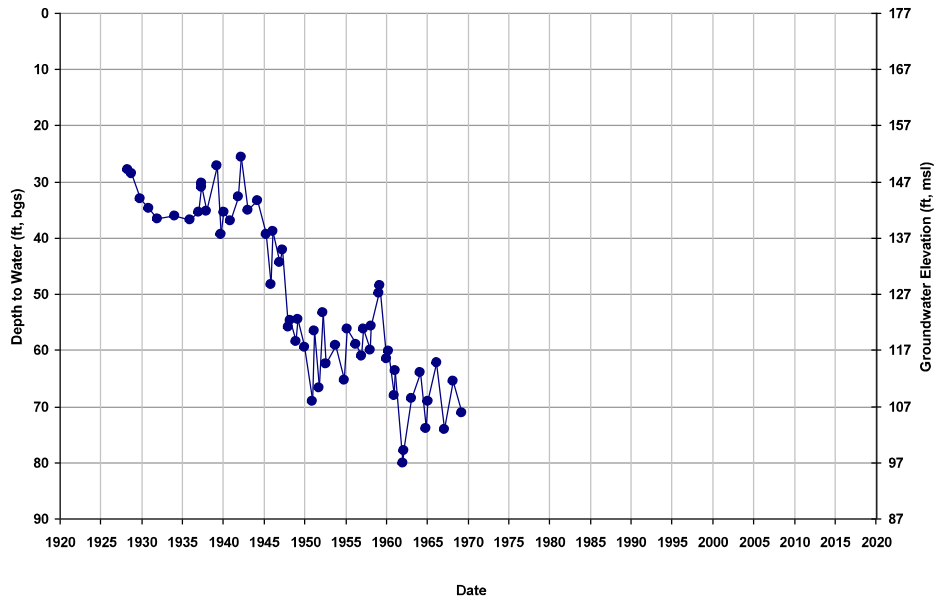
Well ID: 10S15E32L002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 167
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



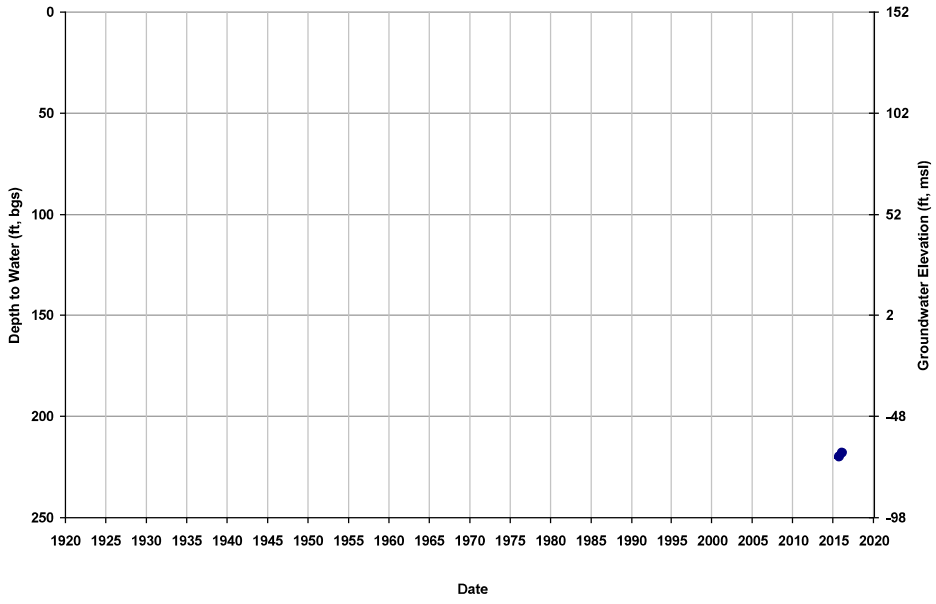
Well ID: 10S15E33B001M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 176
Total Depth (ft): 150
Perf Top (ft): NA
Perf Bottom (ft): NA



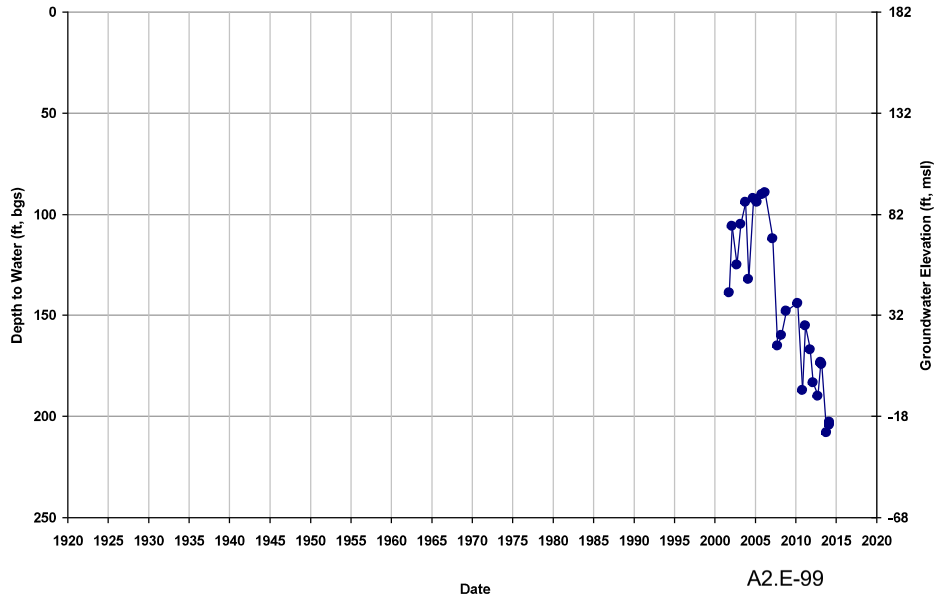
Well ID: 10S15E34A
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 152
Total Depth (ft): 455
Perf Top (ft): 185
Perf Bottom (ft): 365



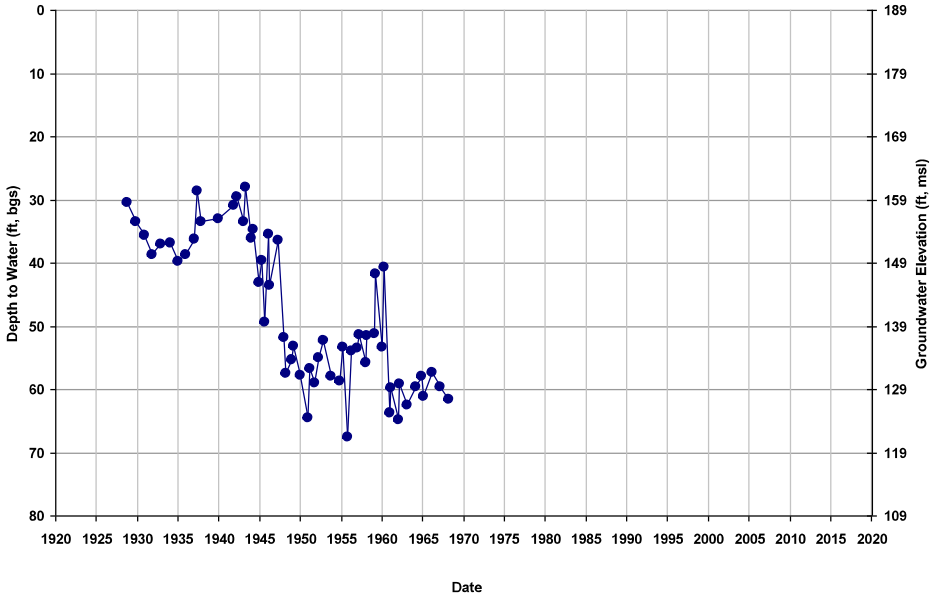
Well ID: 10S15E34L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 182
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



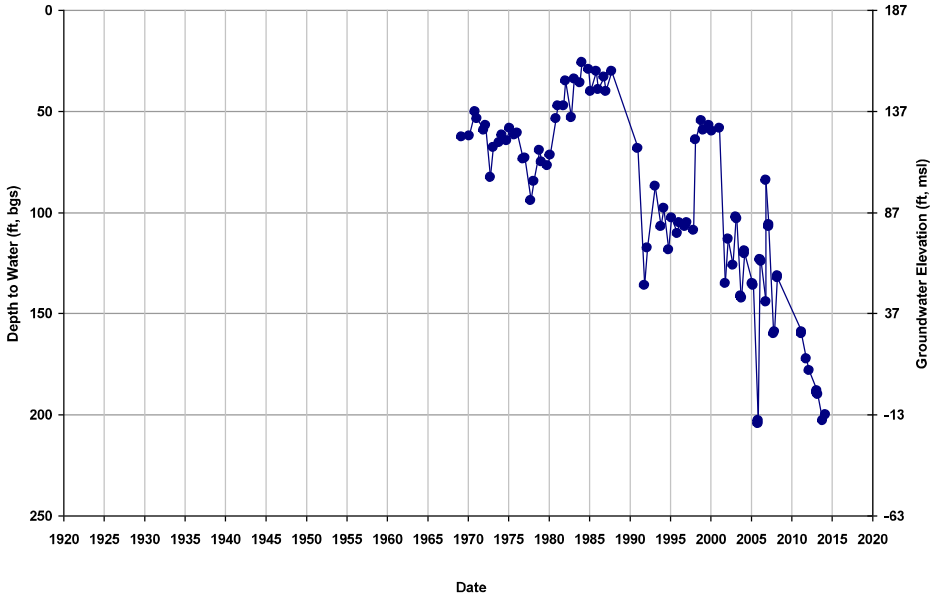
Well ID: 10S15E35A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 188
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



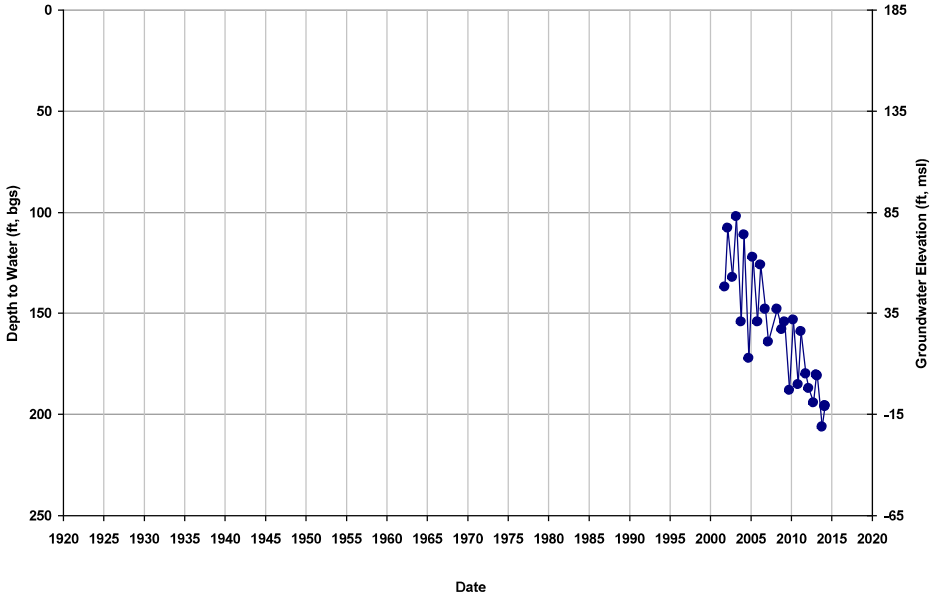
Well ID: 10S15E35A002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 187
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



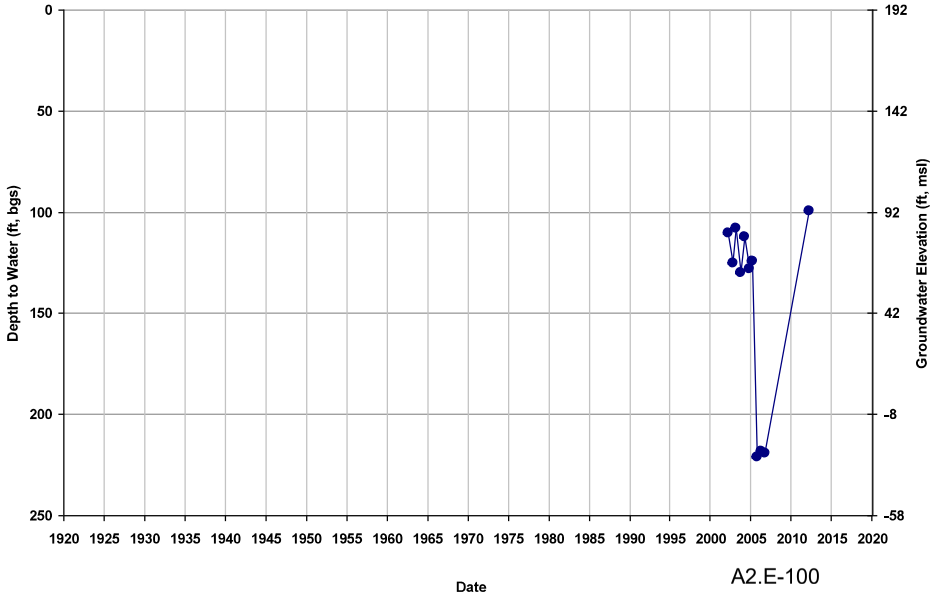
Well ID: 10S15E35J001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 185
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



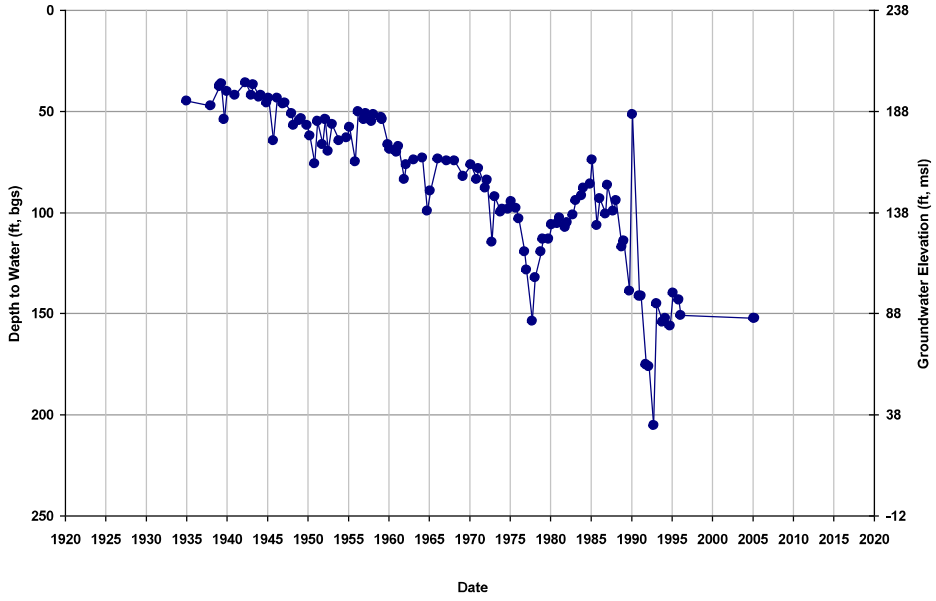
Well ID: 10S15E36A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 192
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



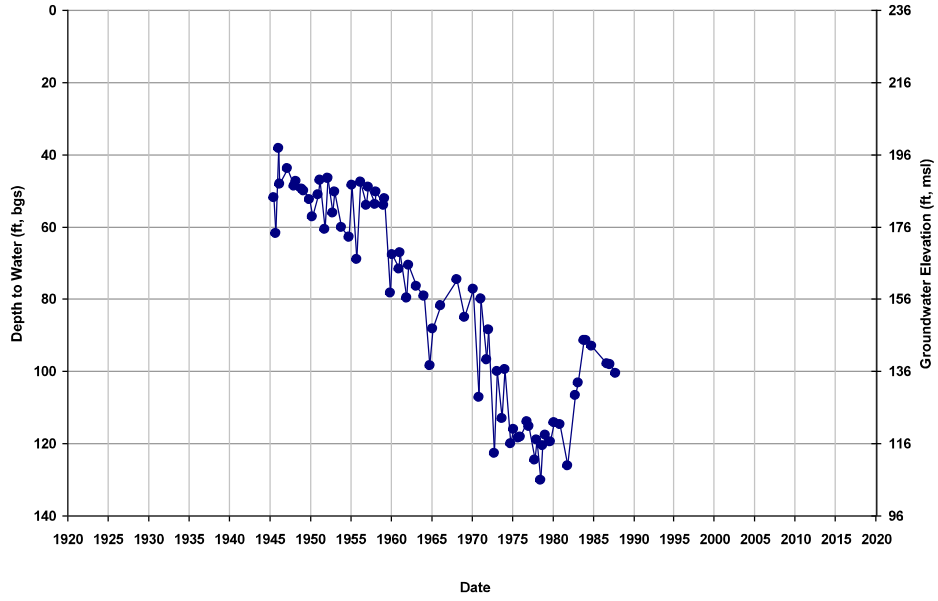
Well ID: 10S16E04N001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 238
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



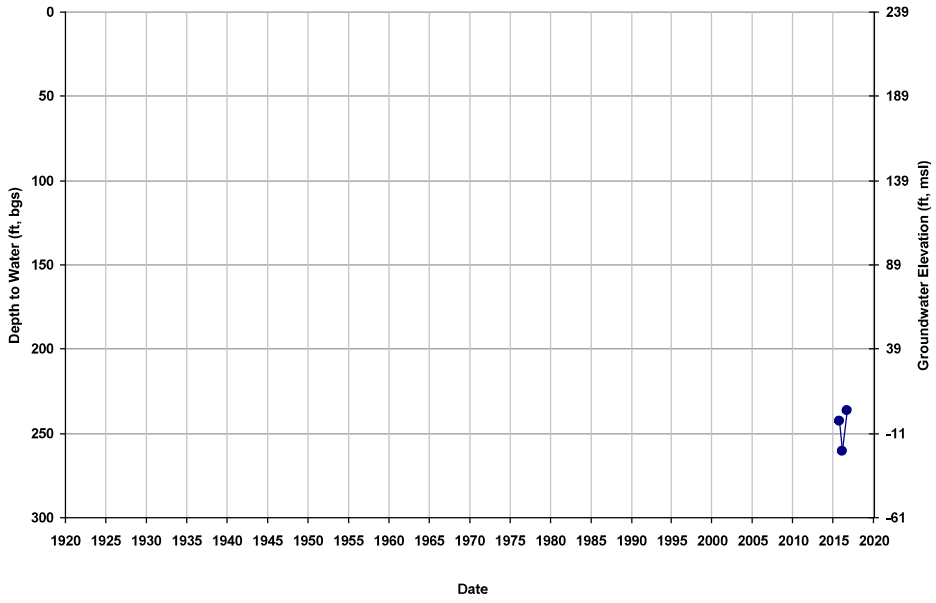
Well ID: 10S16E05C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 236
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



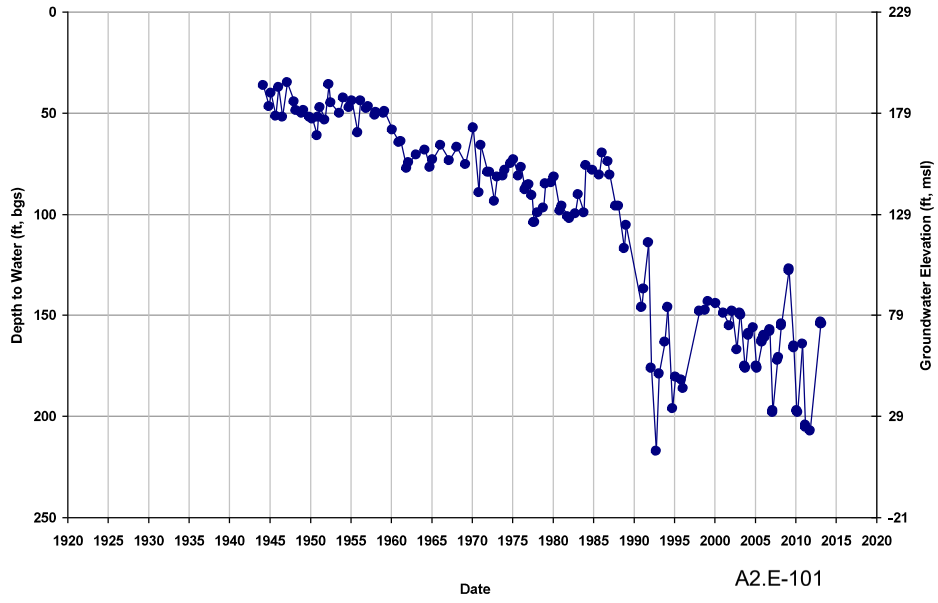
Well ID: 10S16E05M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 239
Total Depth (ft): 440
Perf Top (ft): 240
Perf Bottom (ft): 440



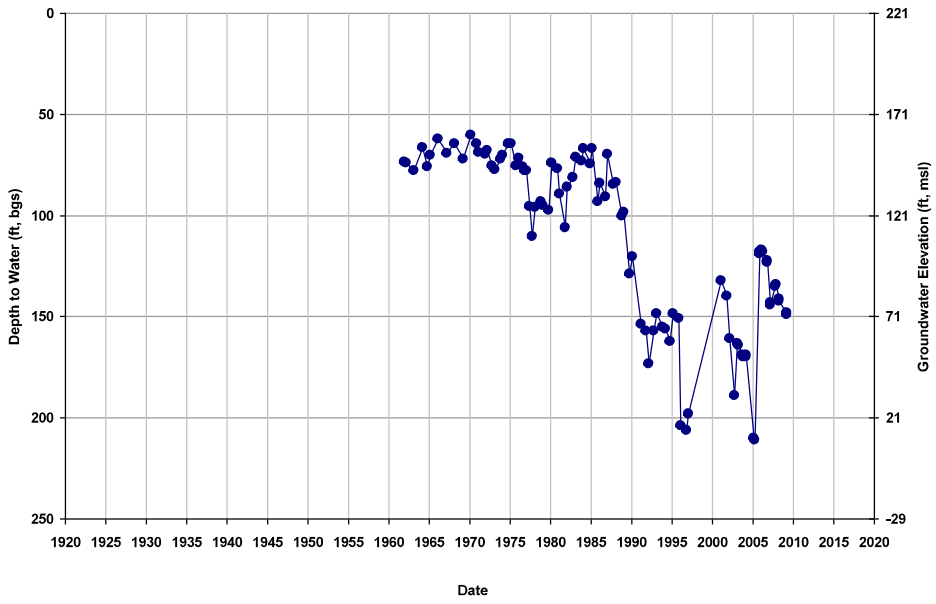
Well ID: 10S16E06R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 229
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



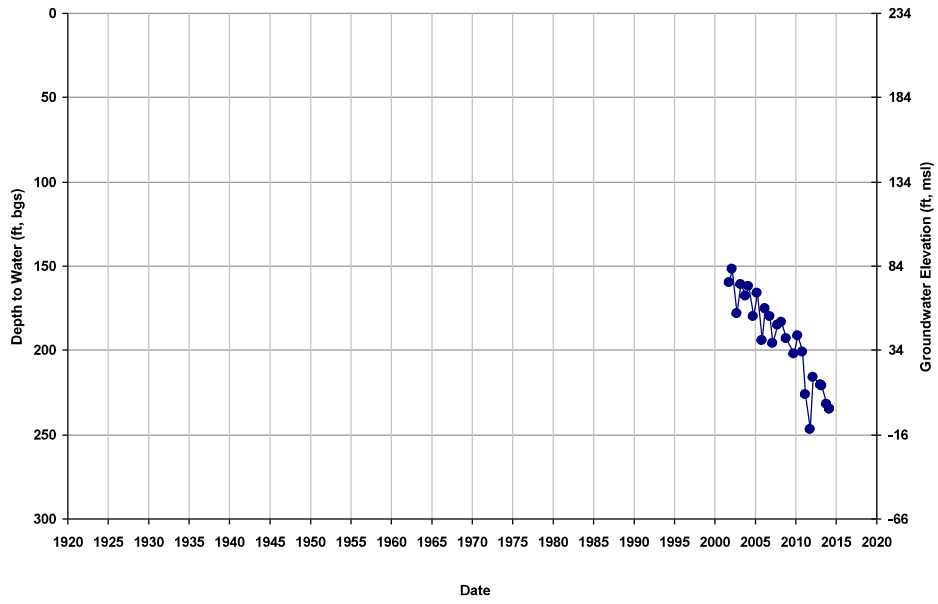
Well ID: 10S16E07K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 221
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



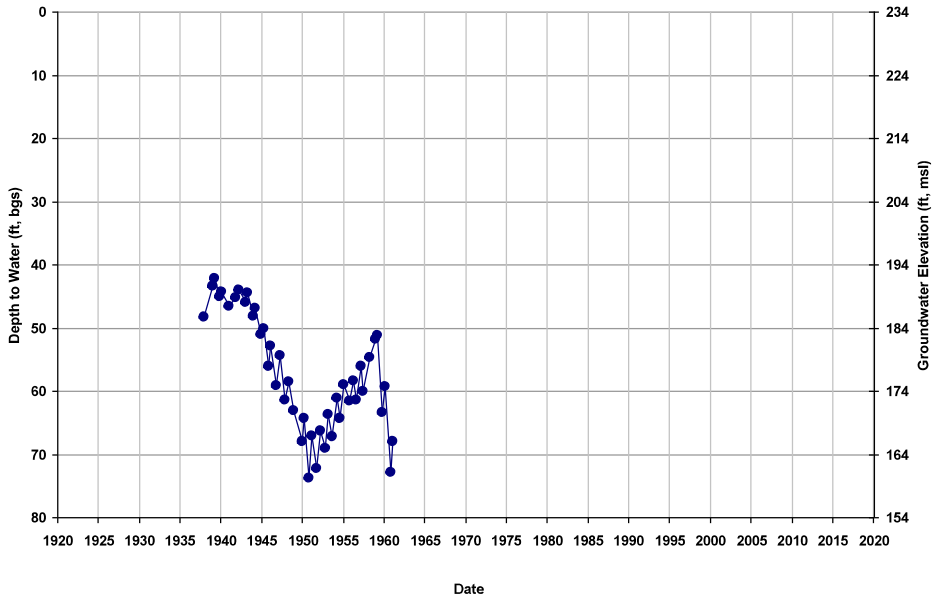
Well ID: 10S16E09E001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 234
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



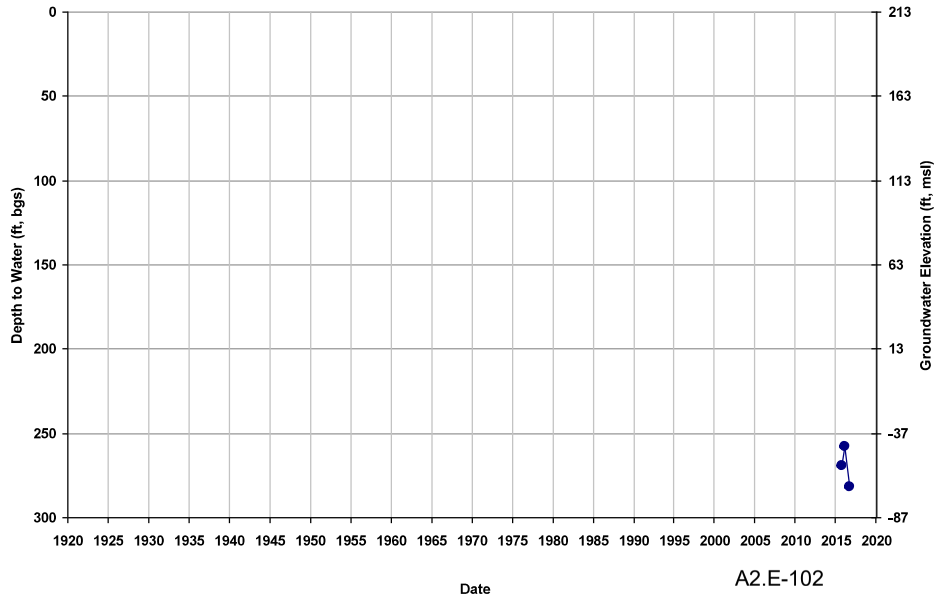
Well ID: 10S16E09E002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 233
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



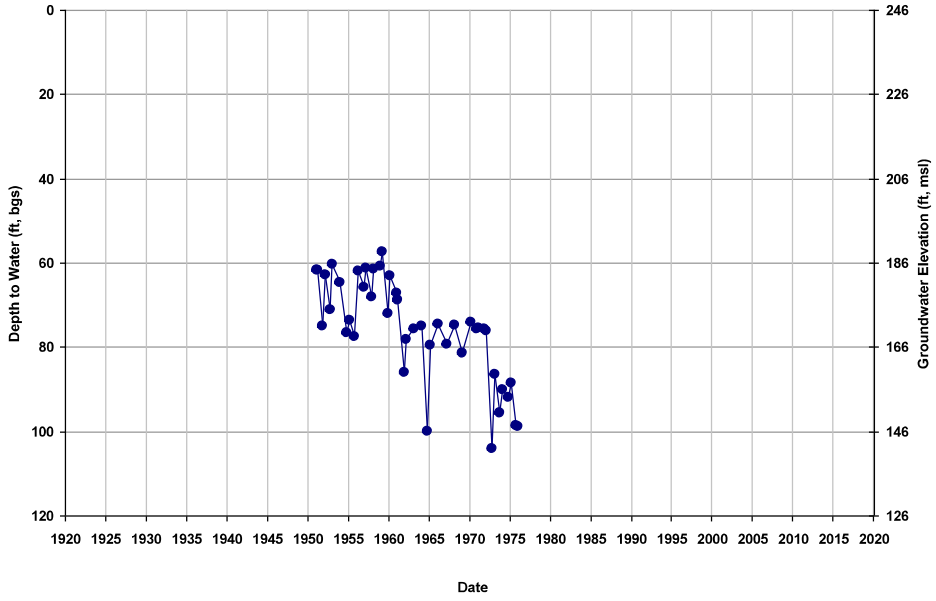
Well ID: 10S16E09M
Depth Zone: Lower; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 213
Total Depth (ft): 955
Perf Top (ft): 290
Perf Bottom (ft): 935



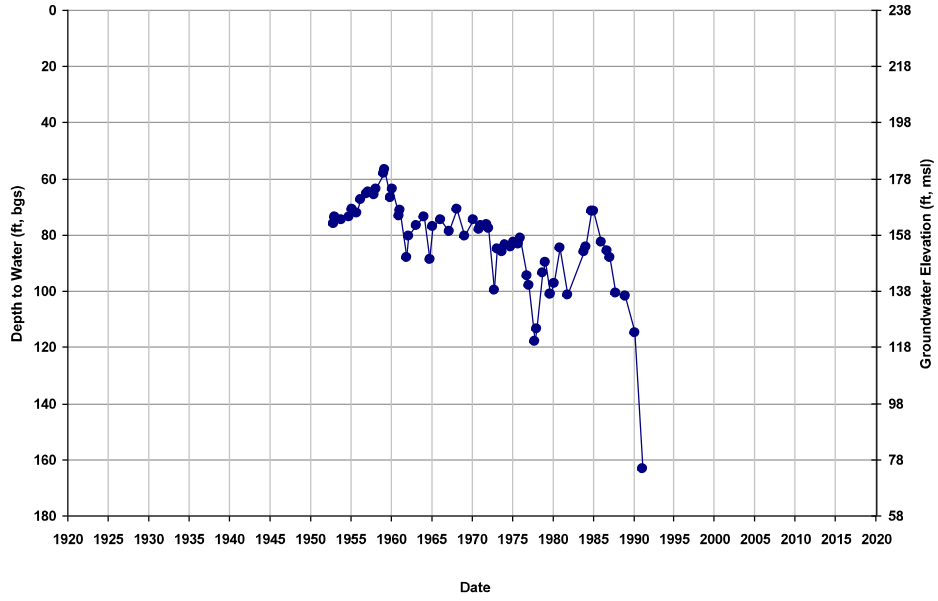
Well ID: 10S16E10C001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 246
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



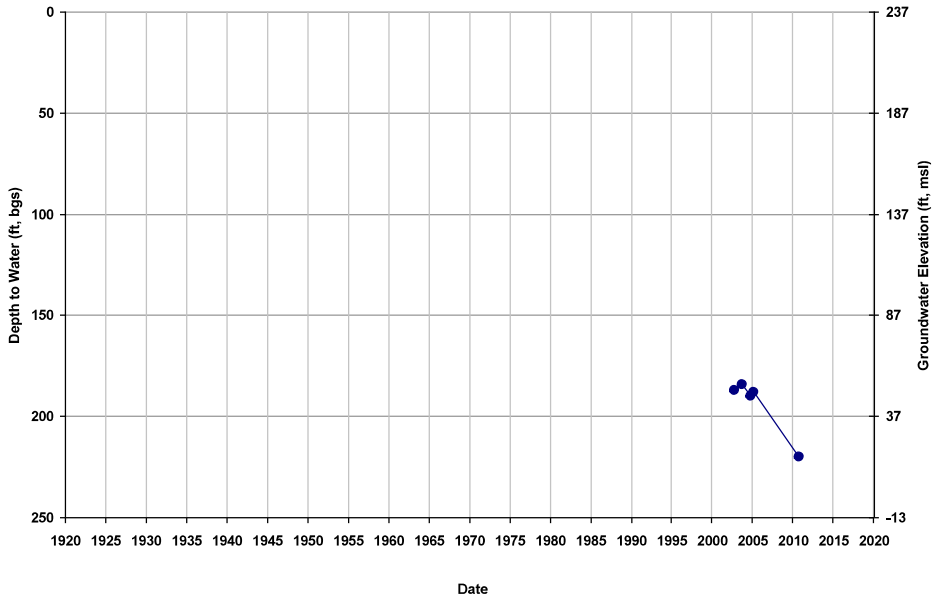
Well ID: 10S16E10N001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 238
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



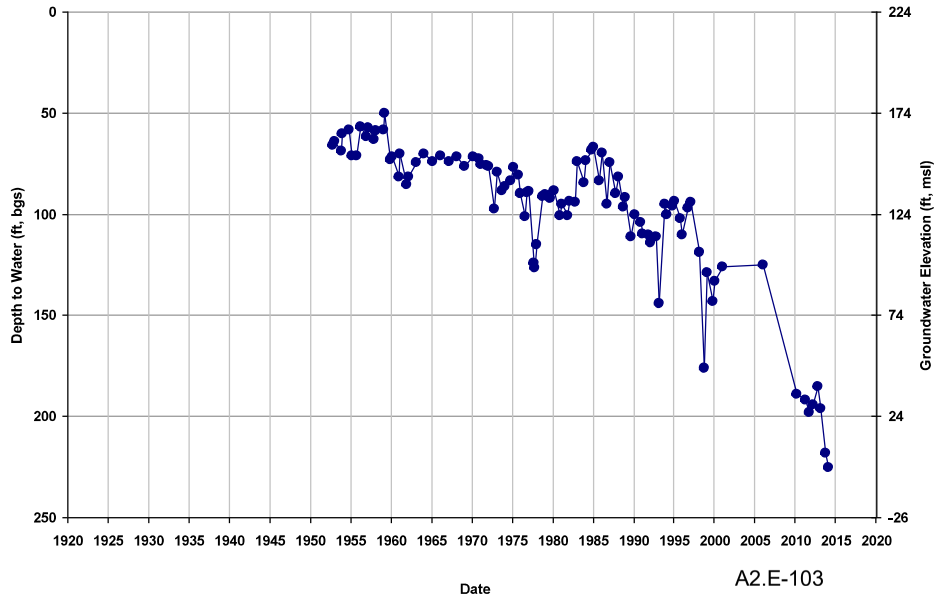
Well ID: 10S16E15F001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 237
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



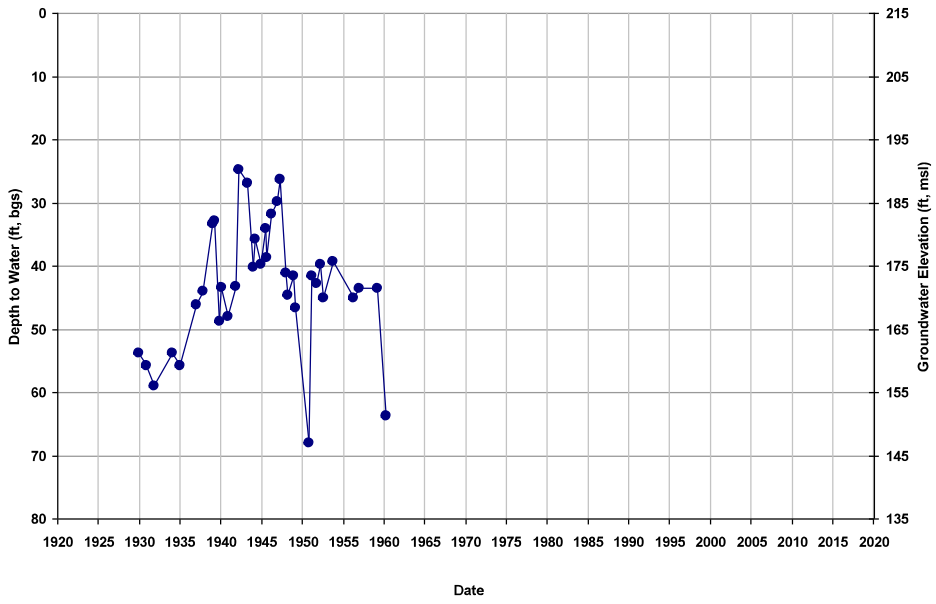
Well ID: 10S16E17C001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 224
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



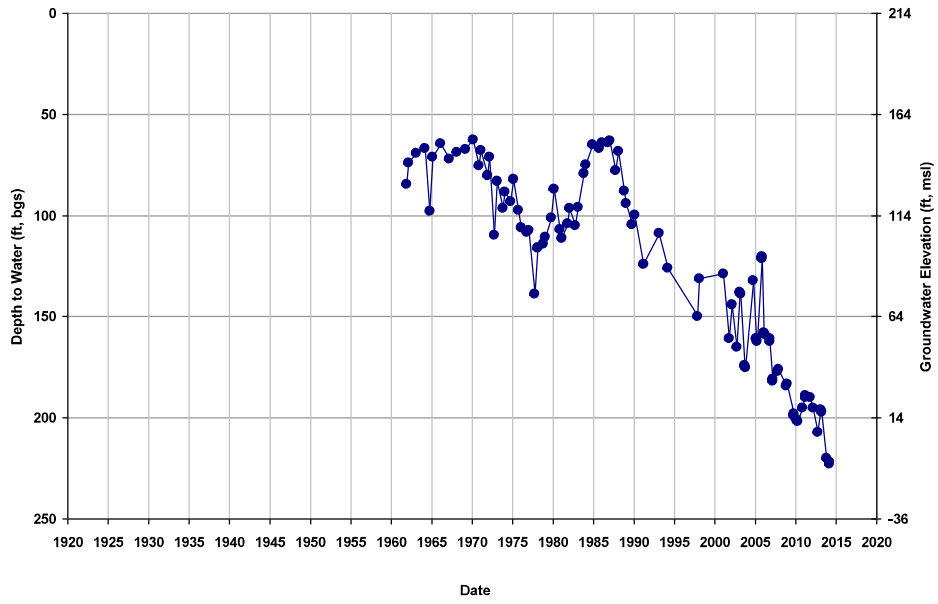
Well ID: 10S16E18D001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 214
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



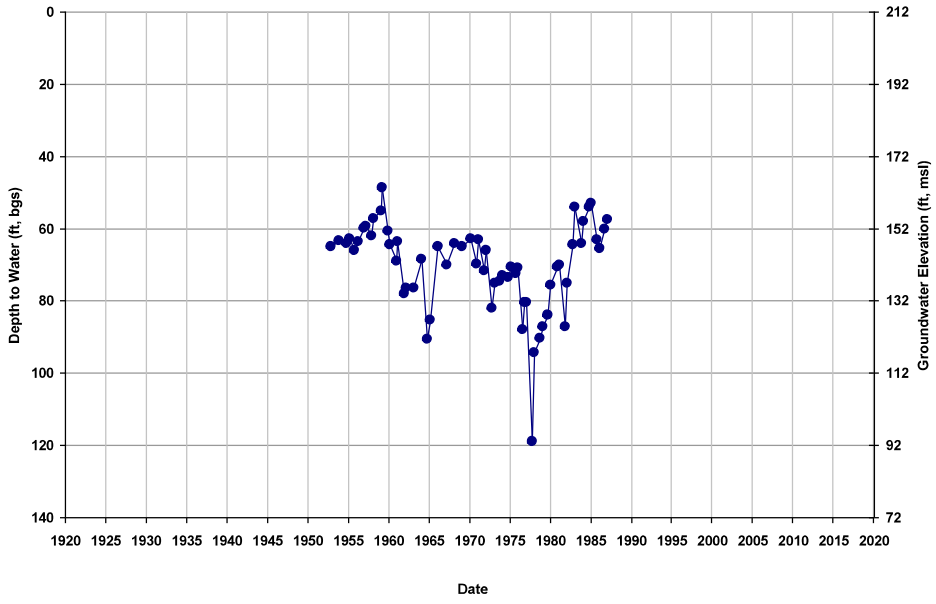
Well ID: 10S16E18D002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 214
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



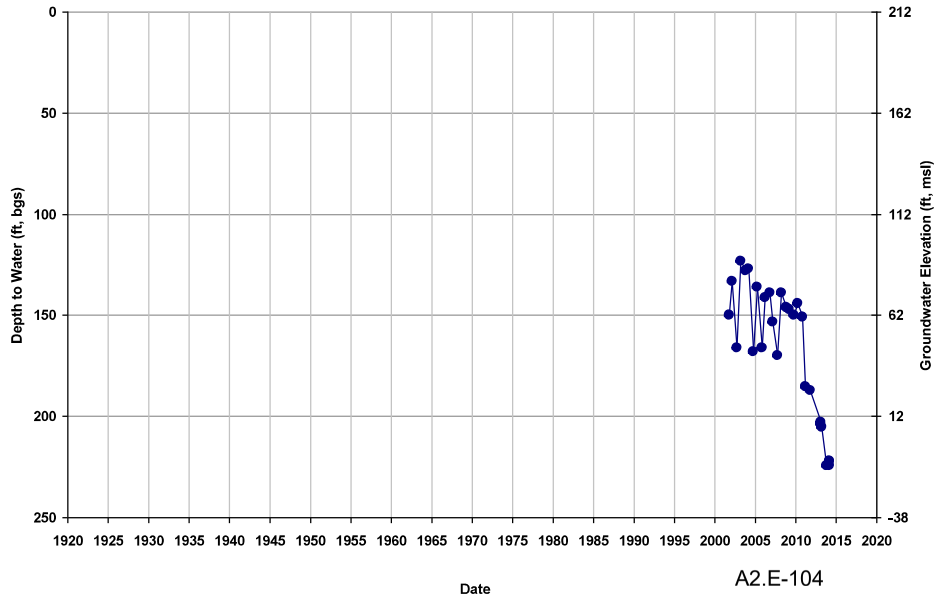
Well ID: 10S16E19A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 212
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



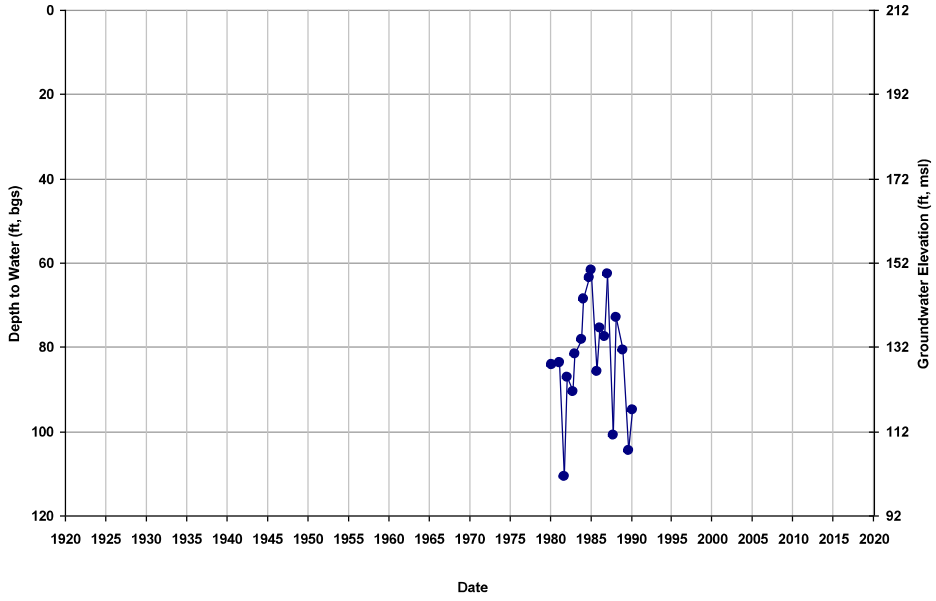
Well ID: 10S16E19A002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 212
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



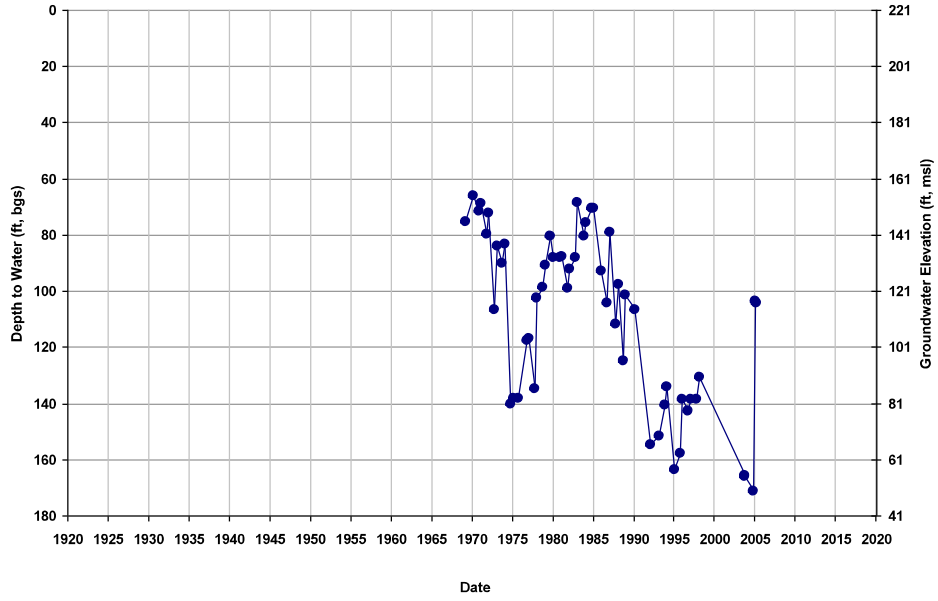
Well ID: 10S16E19J001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 211
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



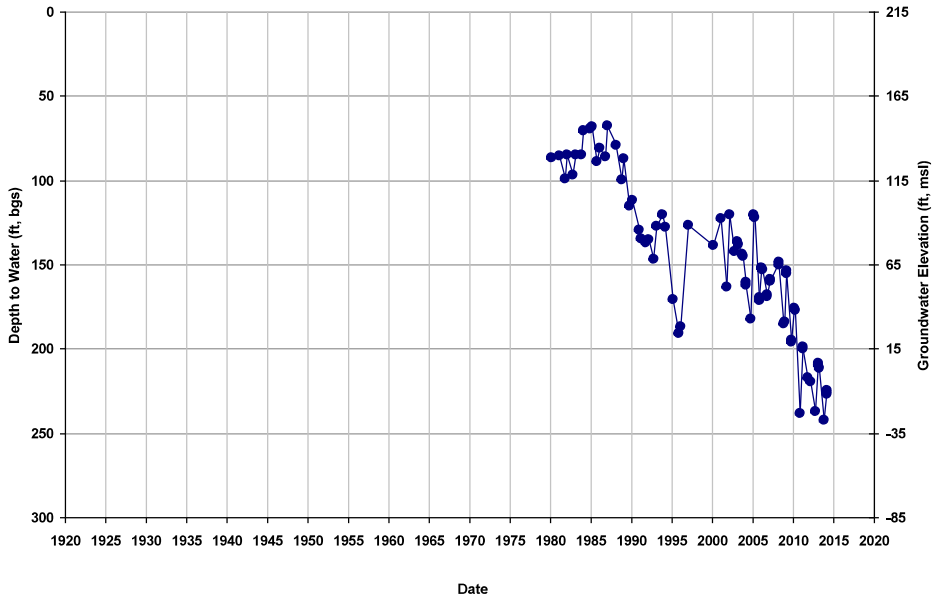
Well ID: 10S16E20A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 221
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



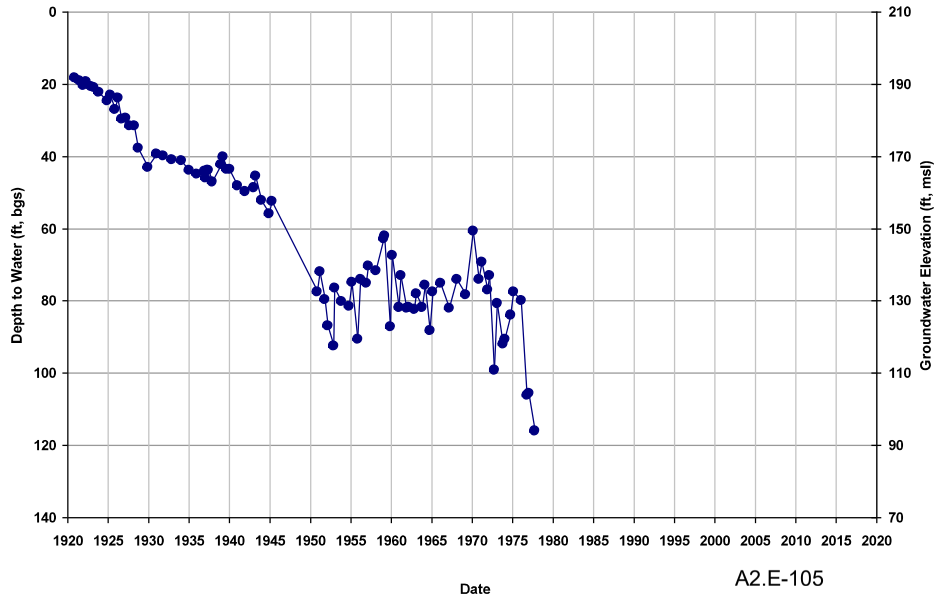
Well ID: 10S16E29A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 215
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



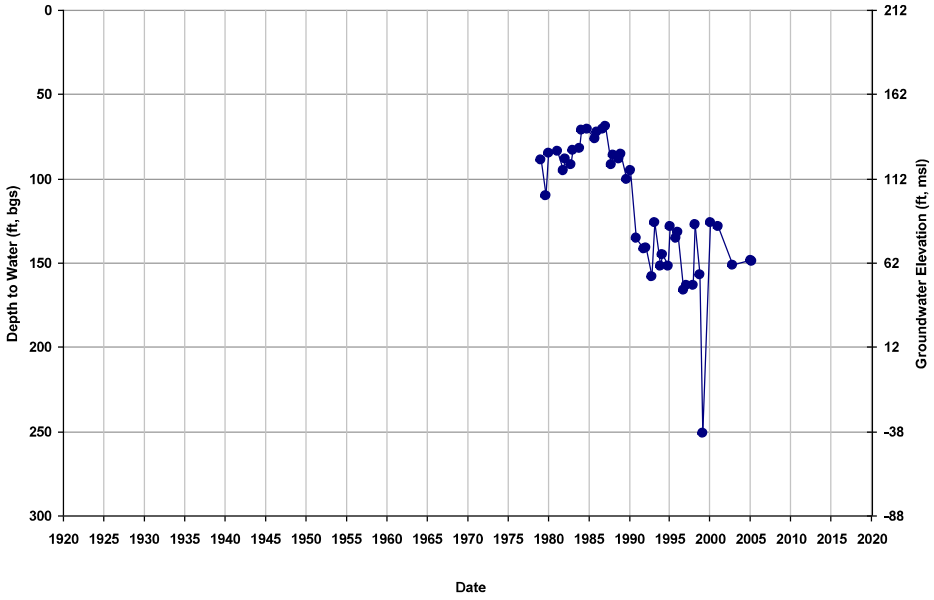
Well ID: 10S16E29R001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 210
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



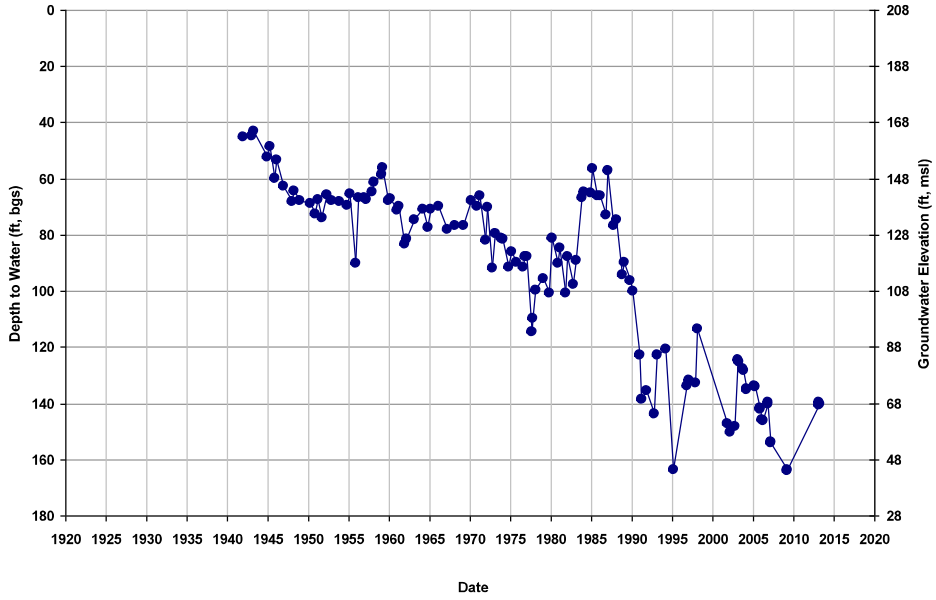
Well ID: 10S16E29R002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 211
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



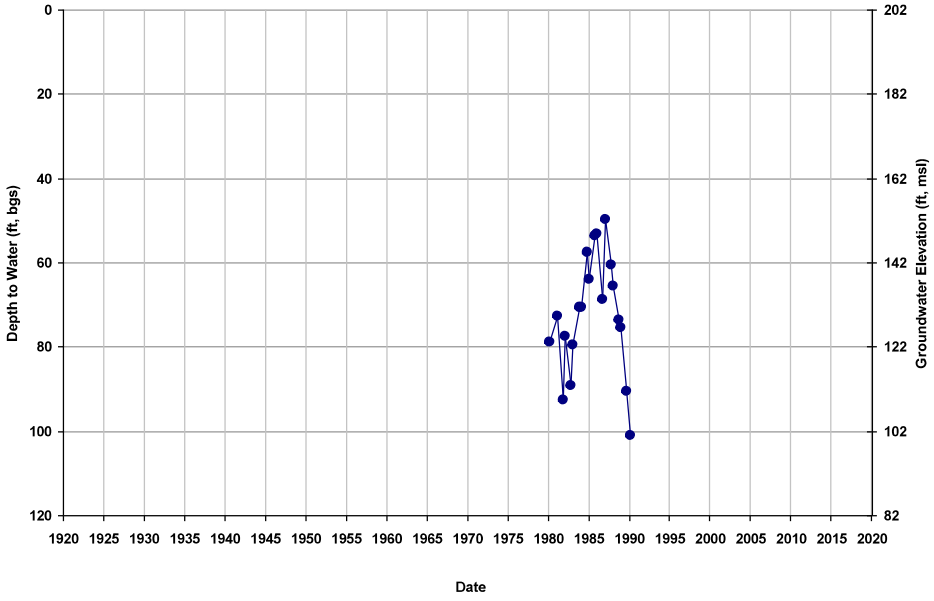
Well ID: 10S16E30A001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 208
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



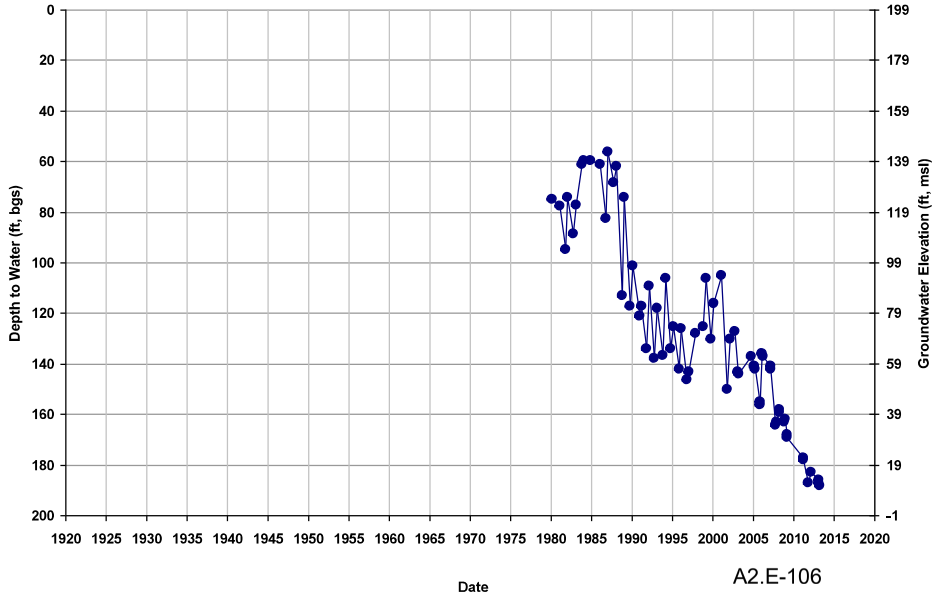
Well ID: 10S16E30D001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 202
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



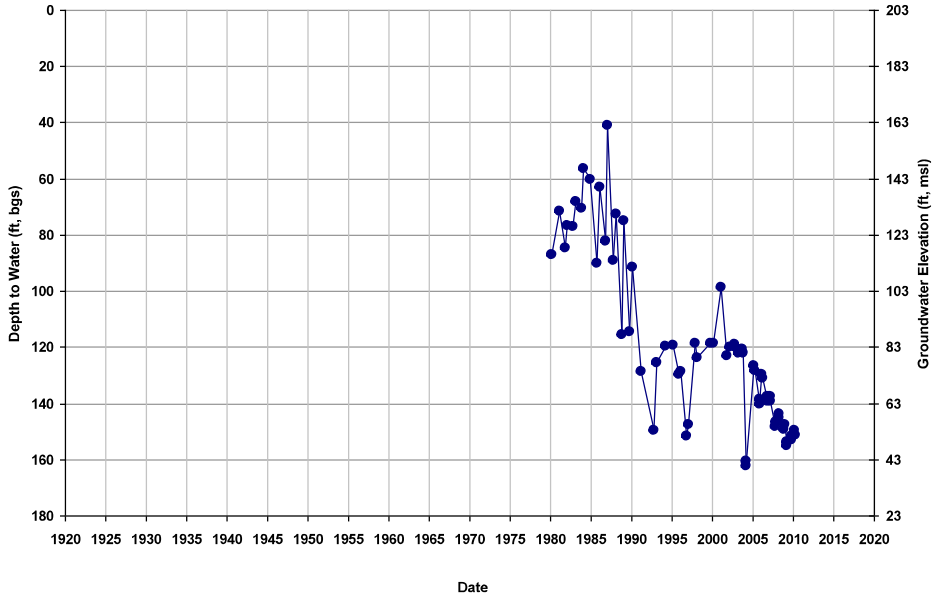
Well ID: 10S16E31J001M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 198
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



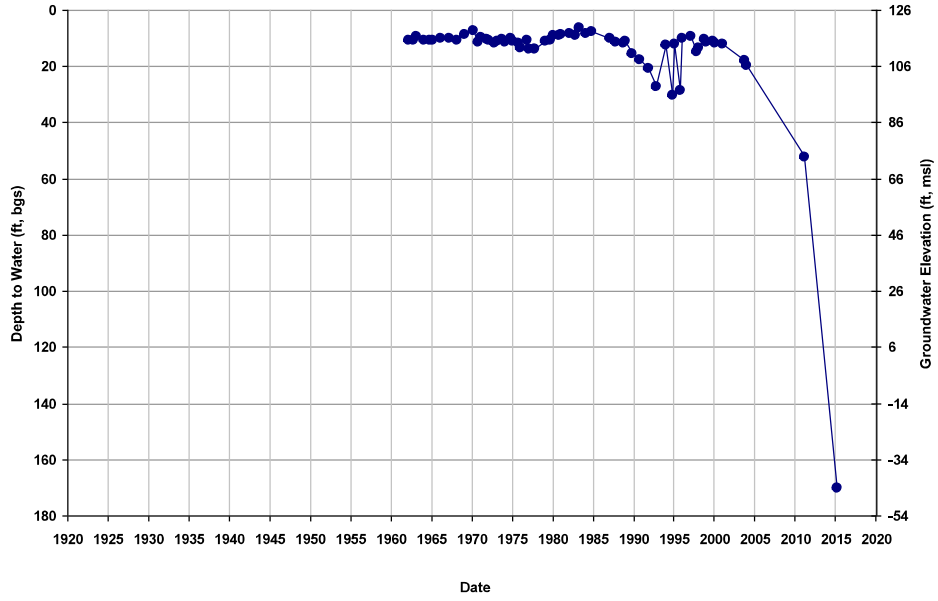
Well ID: 10S16E32D002M
Depth Zone: Unknown; Outside CC
Subbasin: Chowchilla

GSE (ft, msl): 203
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



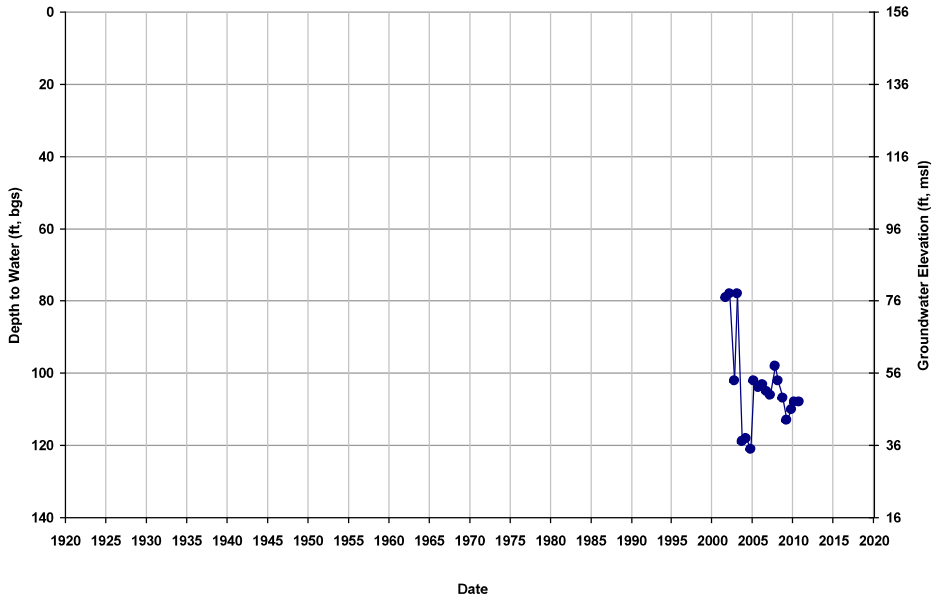
Well ID: 11S13E01Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 126
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



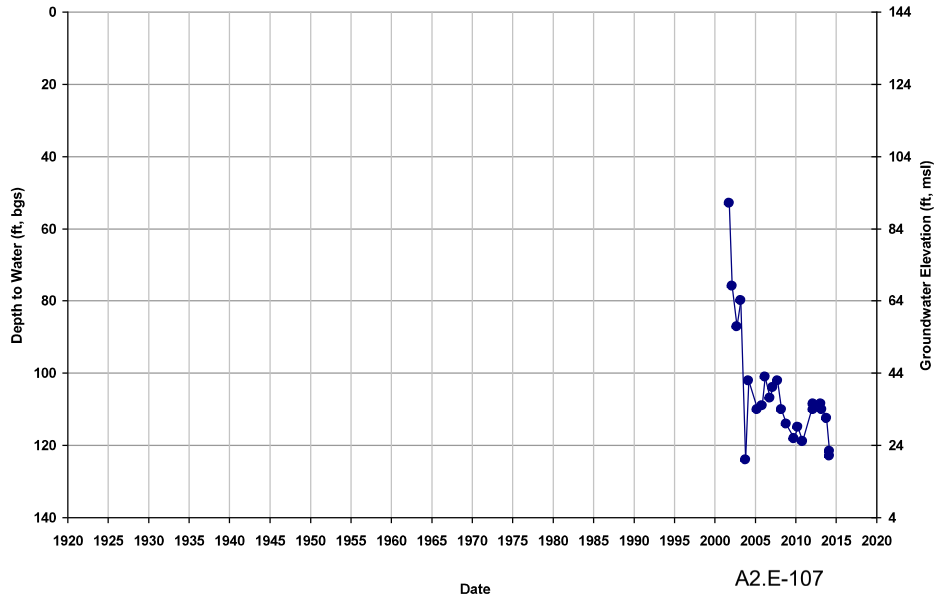
Well ID: 11S14E01R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 156
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



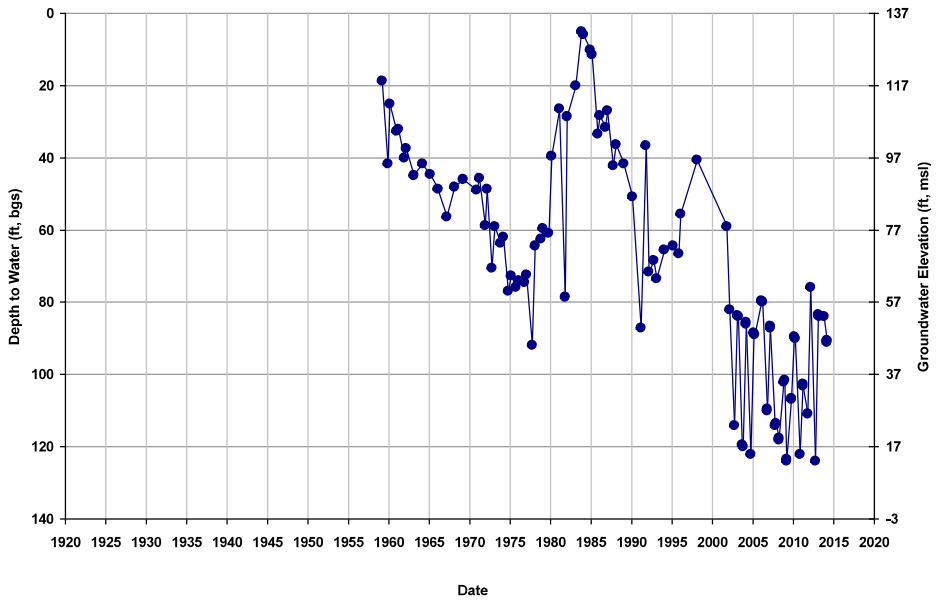
Well ID: 11S14E03G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



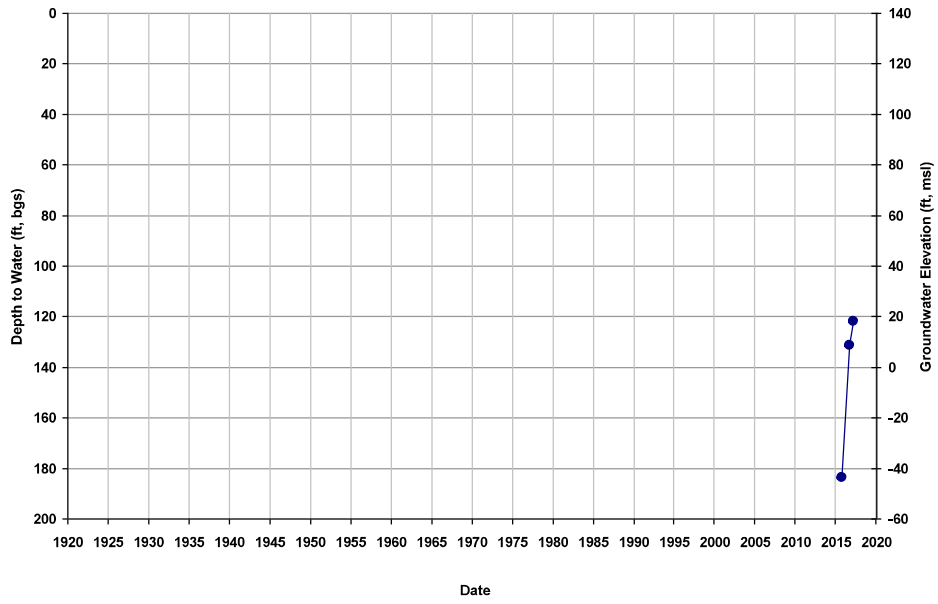
Well ID: 11S14E04C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



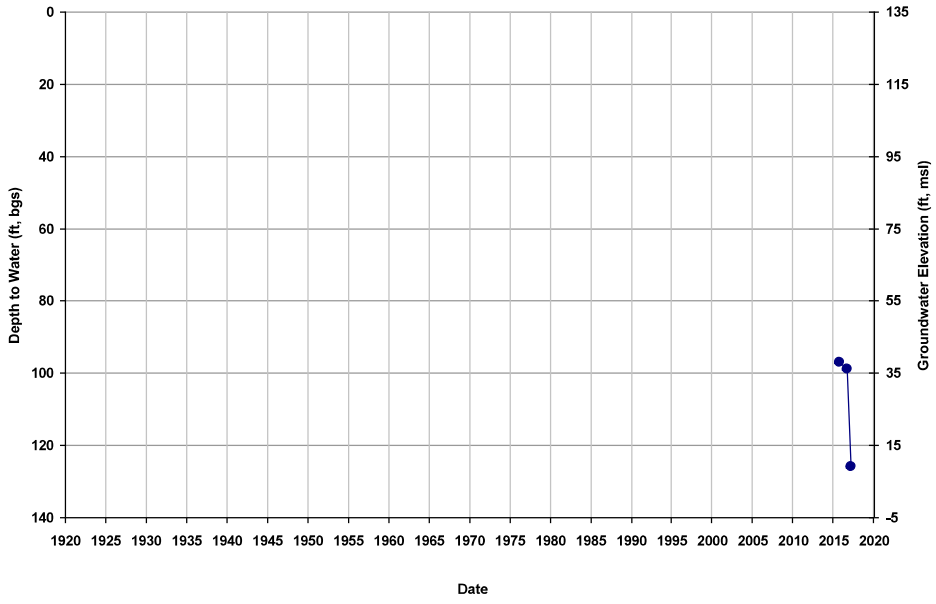
Well ID: 11S14E04J001M
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 140
Total Depth (ft): 900
Perf Top (ft): NA
Perf Bottom (ft): NA



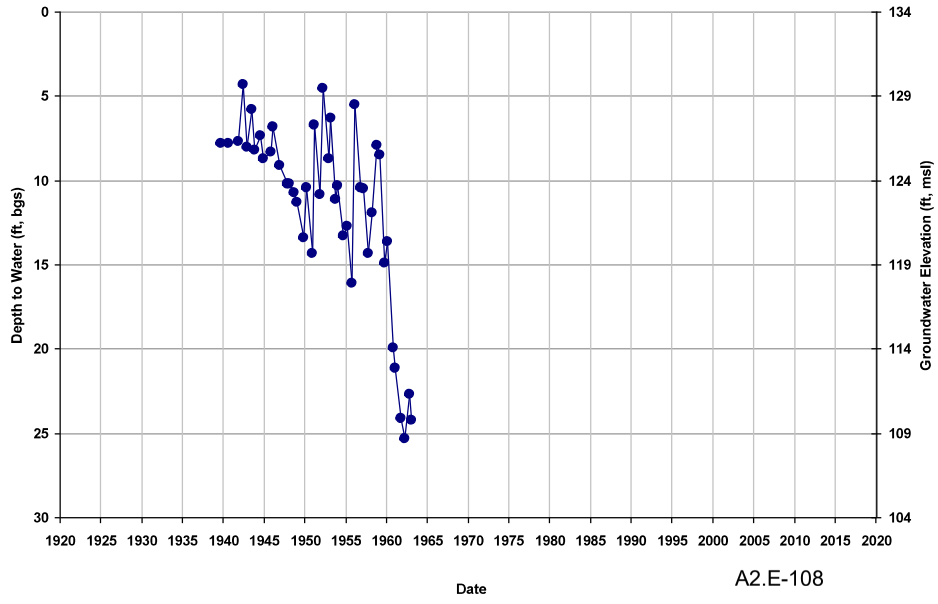
Well ID: 11S14E05J001M
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 135
Total Depth (ft): 500
Perf Top (ft): 300
Perf Bottom (ft): 500



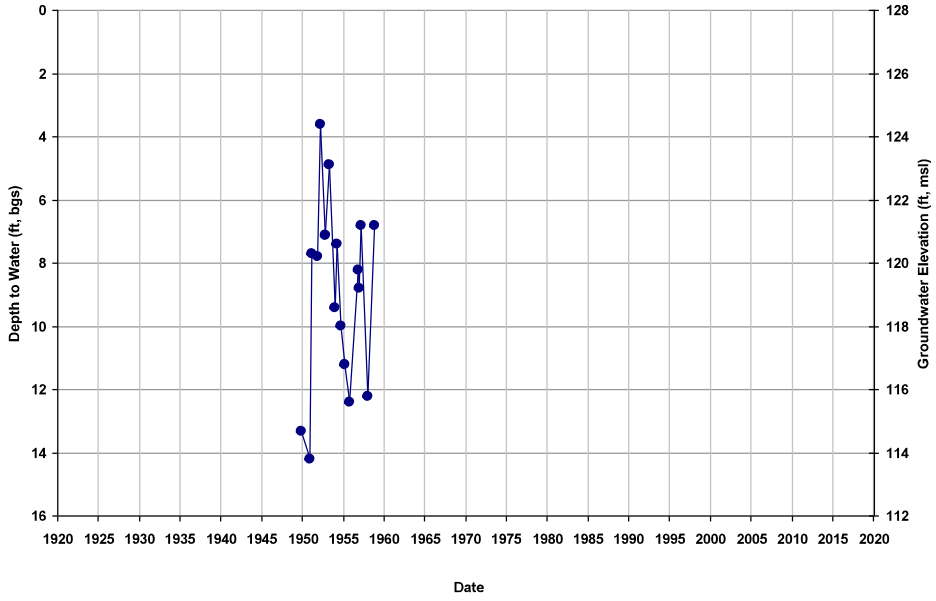
Well ID: 11S14E05P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



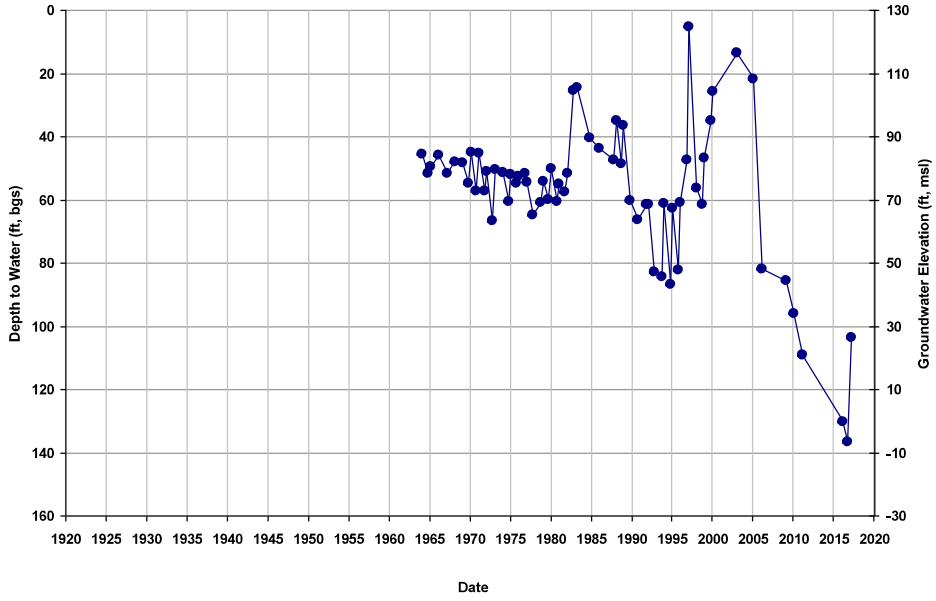
Well ID: 11S14E06M001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 128
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



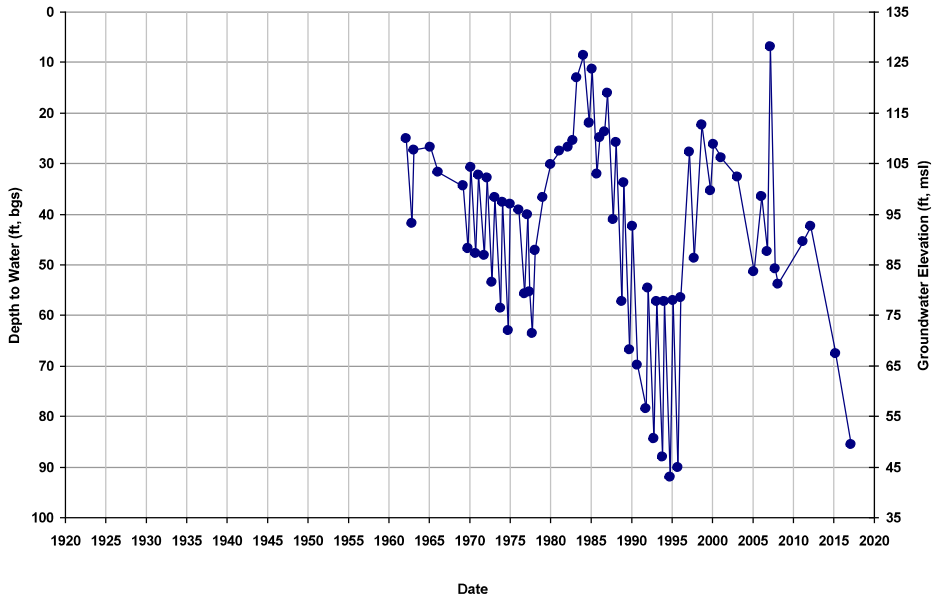
Well ID: 11S14E07N001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 129
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



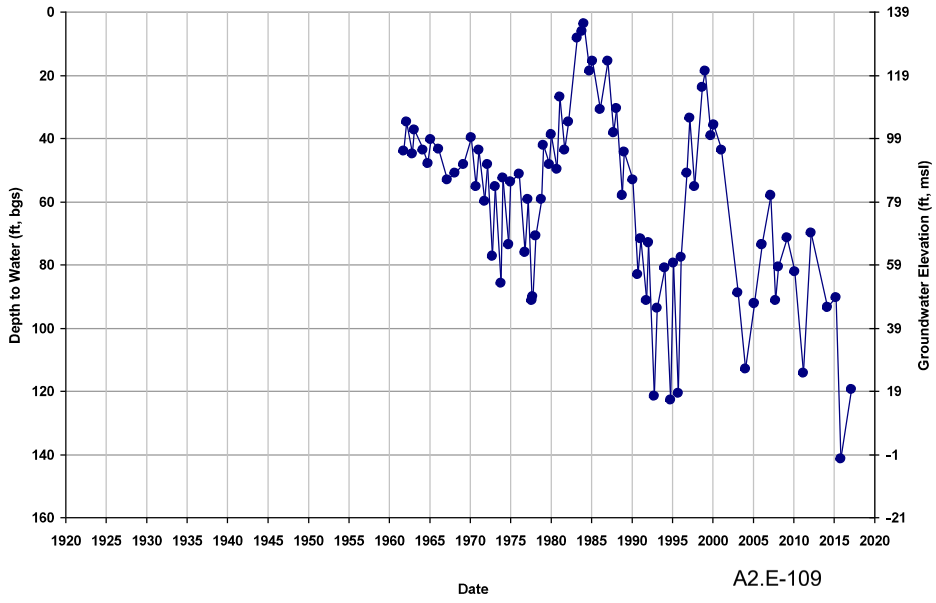
Well ID: 11S14E08R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



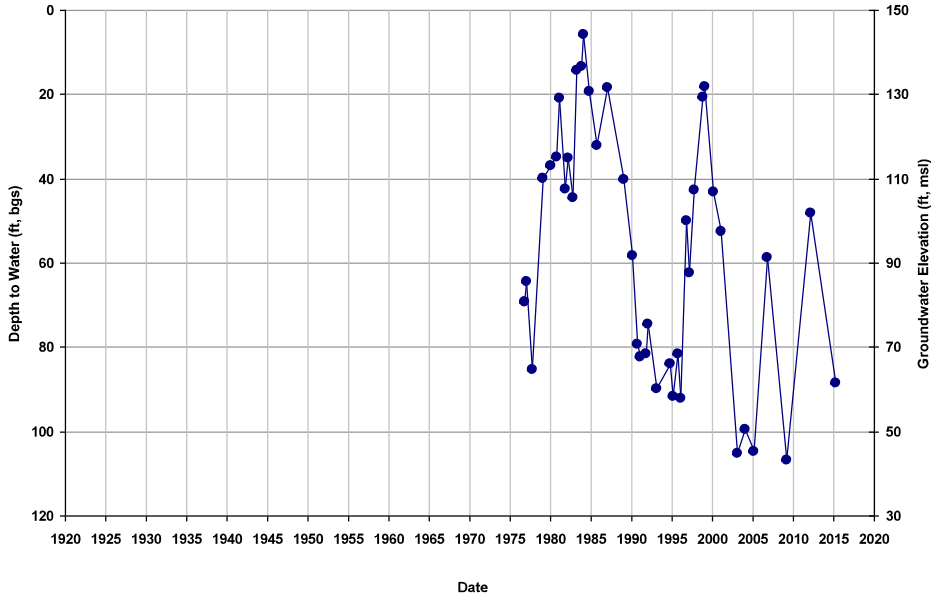
Well ID: 11S14E09A003M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



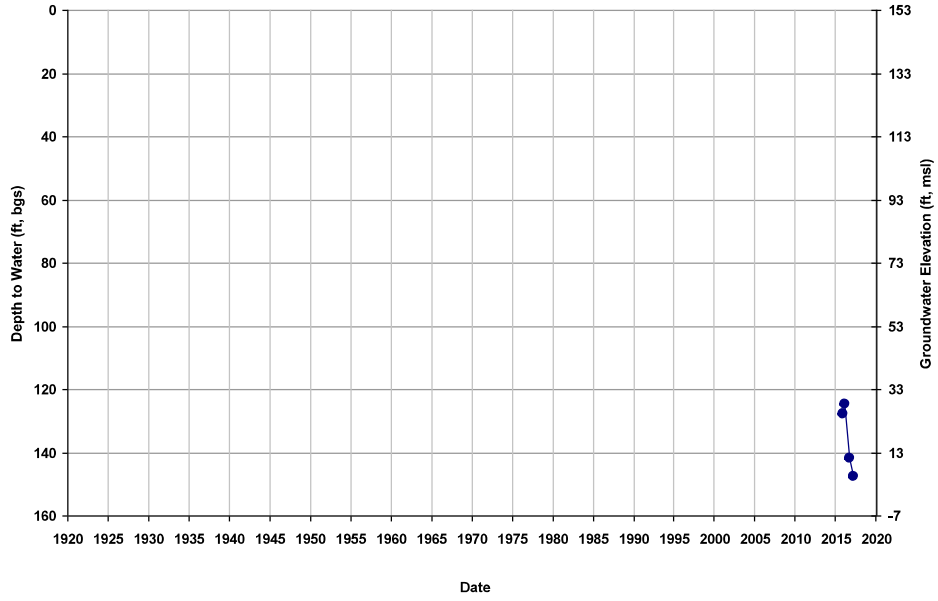
Well ID: 11S14E12E001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 150
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



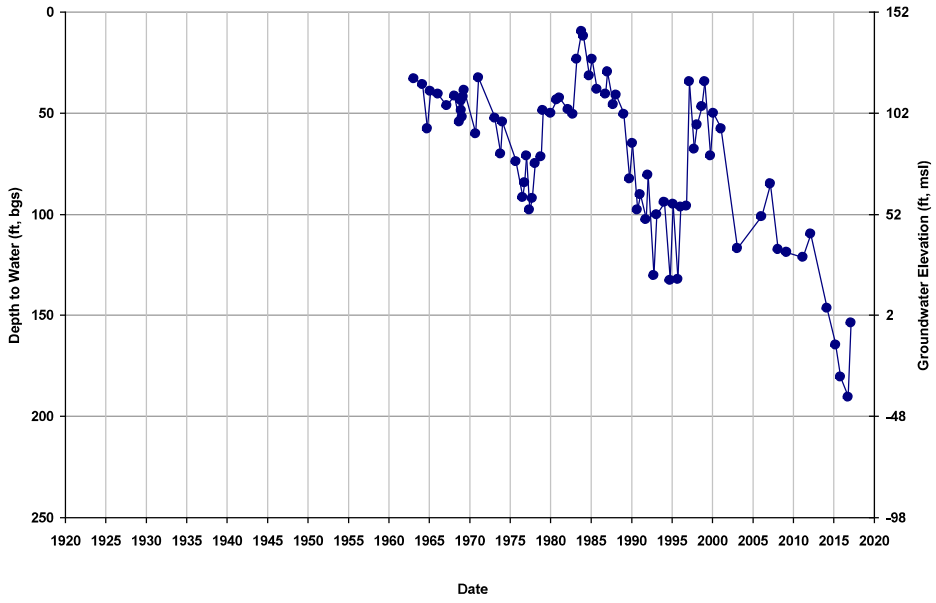
Well ID: 11S14E12H1
Depth Zone: Composite or Lower; Wi
Subbasin: Chowchilla

GSE (ft, msl): 153
Total Depth (ft): 420
Perf Top (ft): NA
Perf Bottom (ft): NA



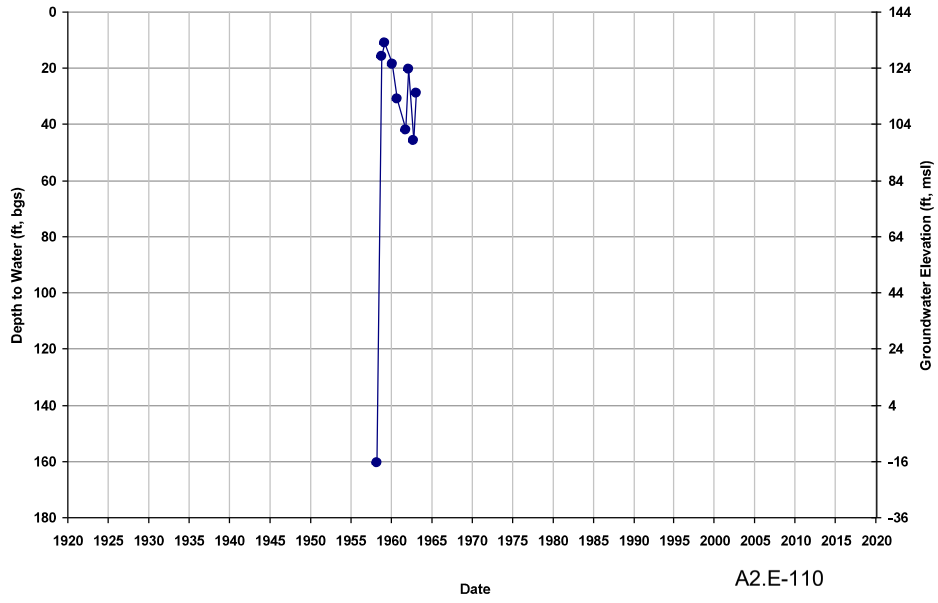
Well ID: 11S14E13R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 152
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



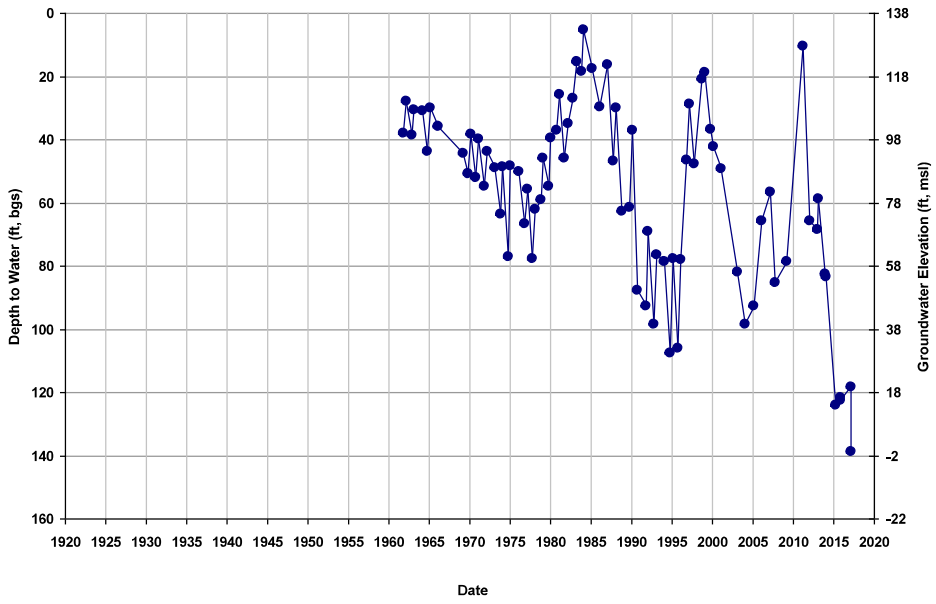
Well ID: 11S14E14Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



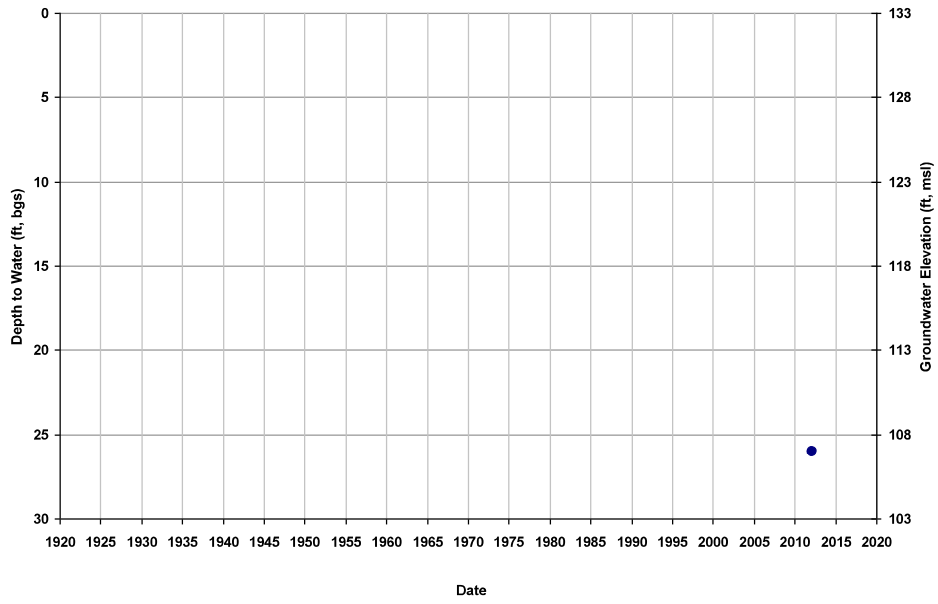
Well ID: 11S14E16A001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



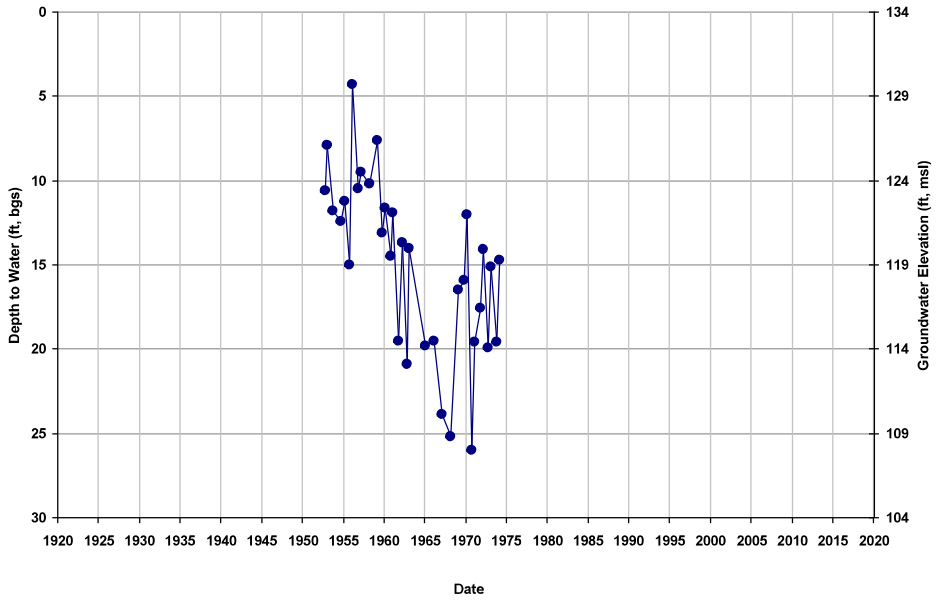
Well ID: 11S14E17J001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



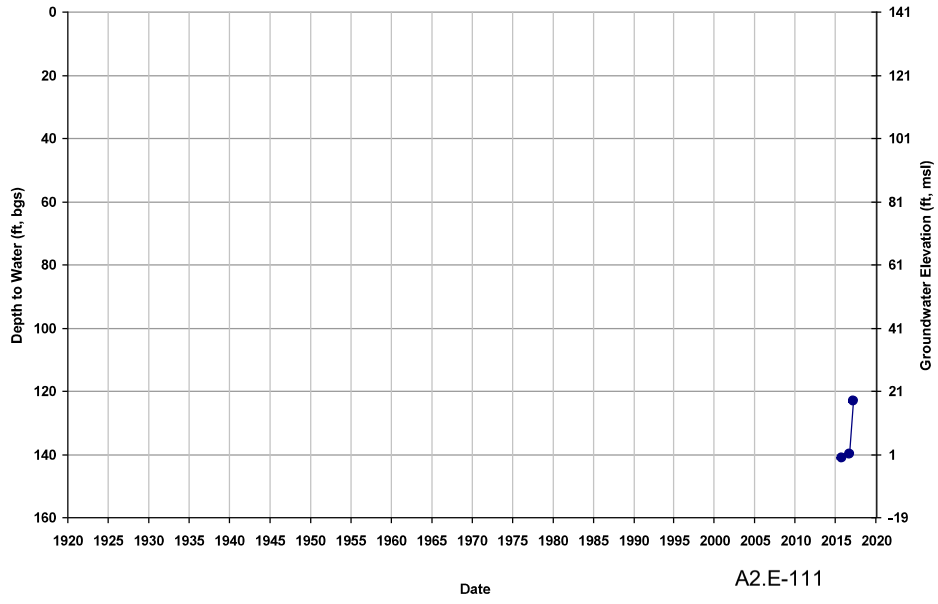
Well ID: 11S14E21N001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



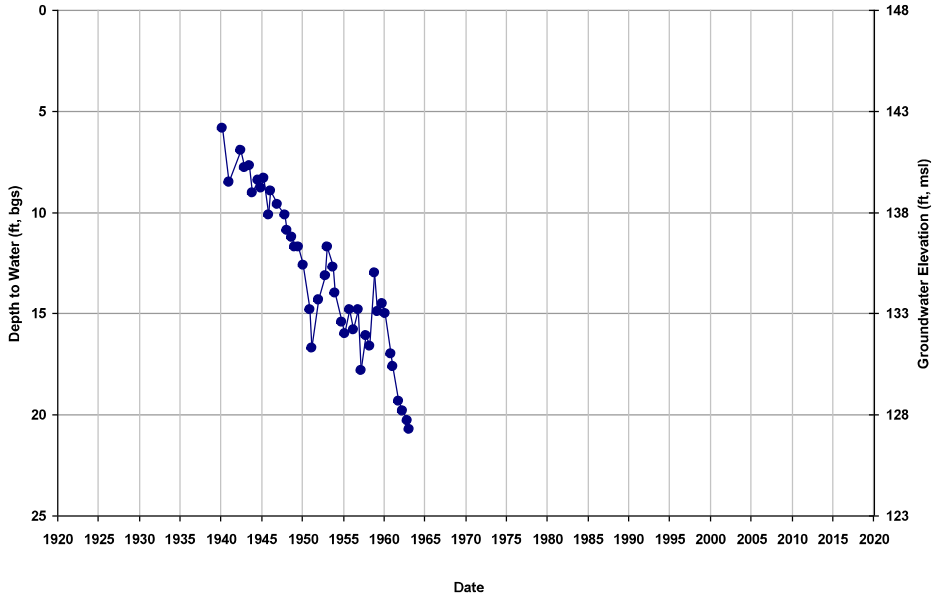
Well ID: 11S14E22F001M
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 141
Total Depth (ft): 840
Perf Top (ft): 190
Perf Bottom (ft): 260



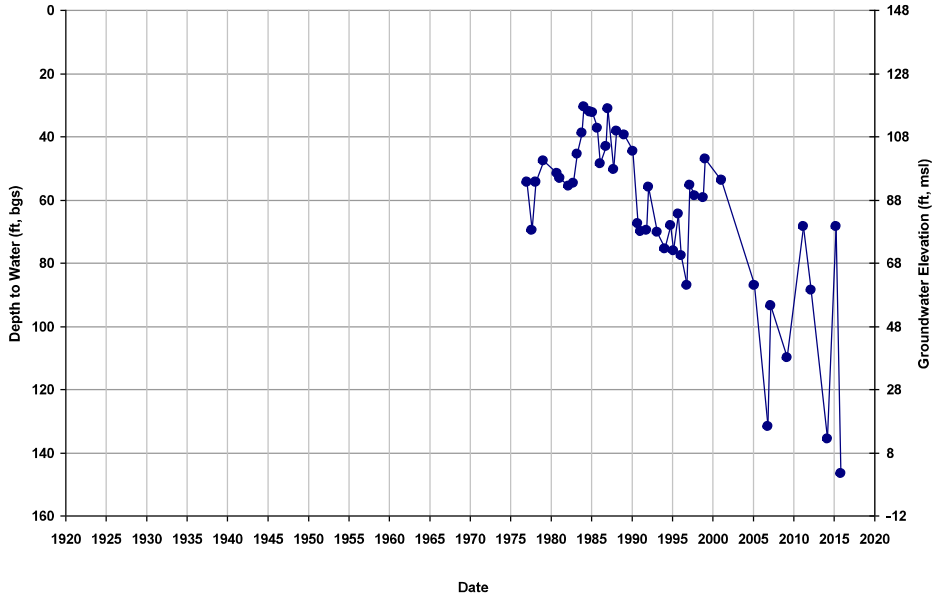
Well ID: 11S14E25L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 147
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



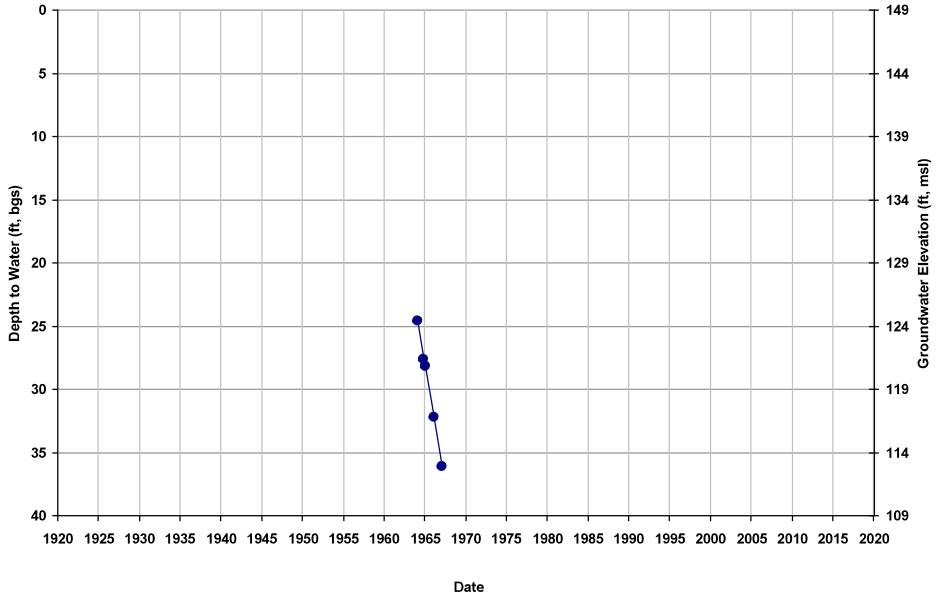
Well ID: 11S14E25L002M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 148
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



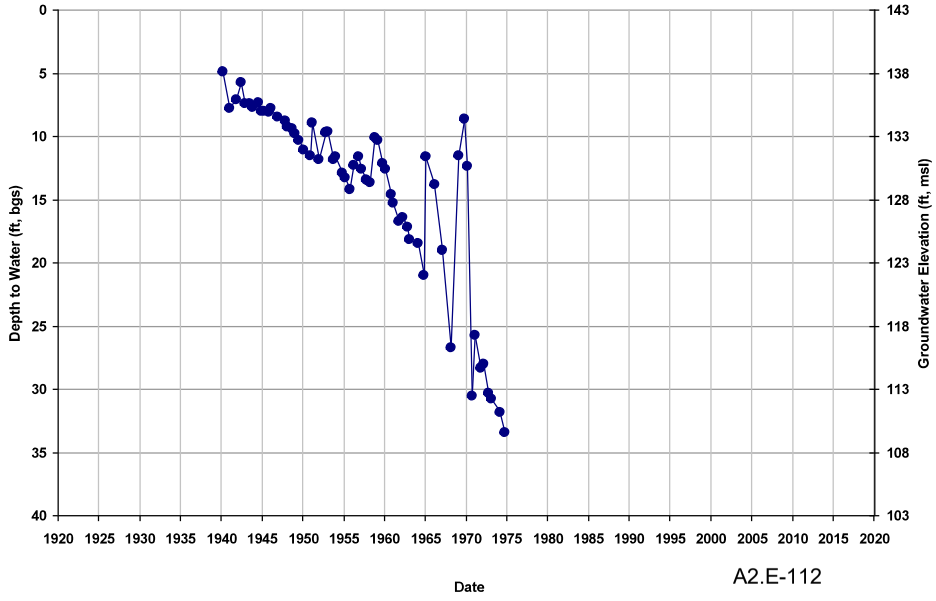
Well ID: 11S14E25R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 149
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



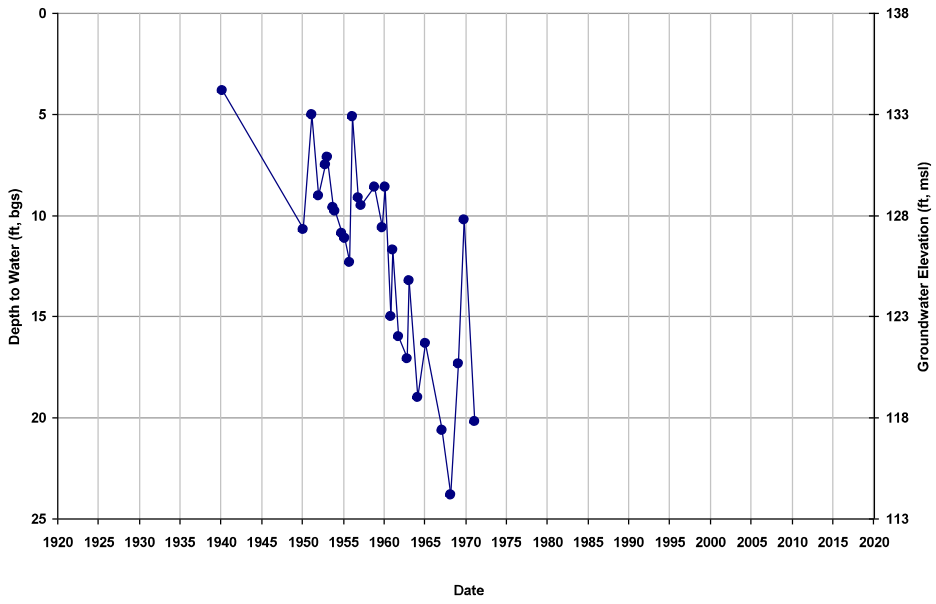
Well ID: 11S14E26L001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



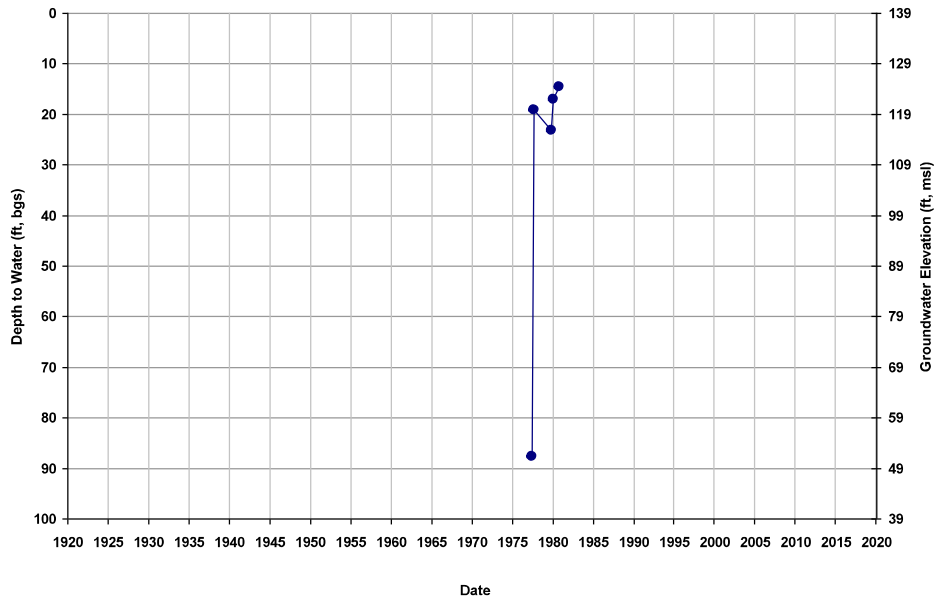
Well ID: 11S14E27F001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



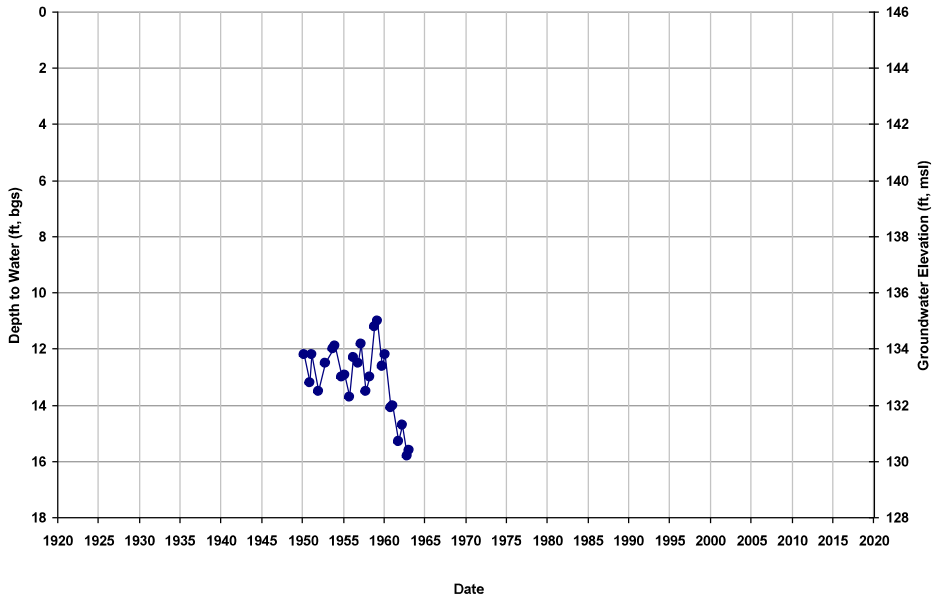
Well ID: 11S14E33P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 139
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



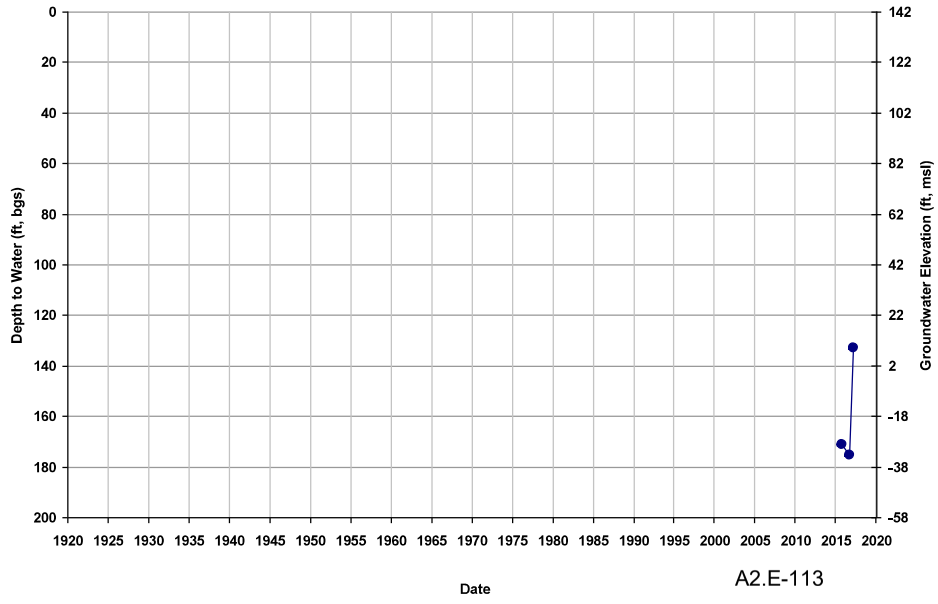
Well ID: 11S14E35Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 146
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



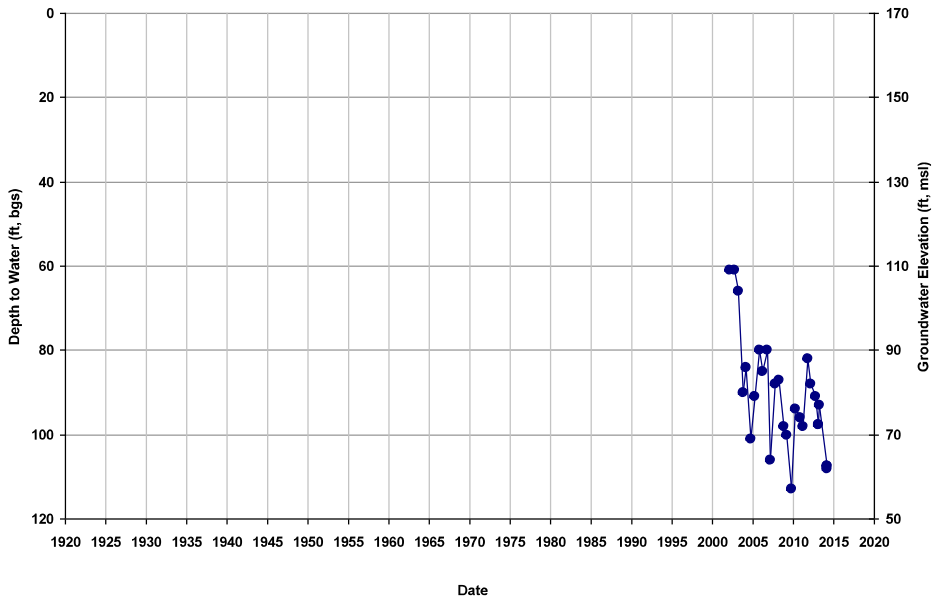
Well ID: 11S15E01F
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 480
Perf Top (ft): 160
Perf Bottom (ft): 475



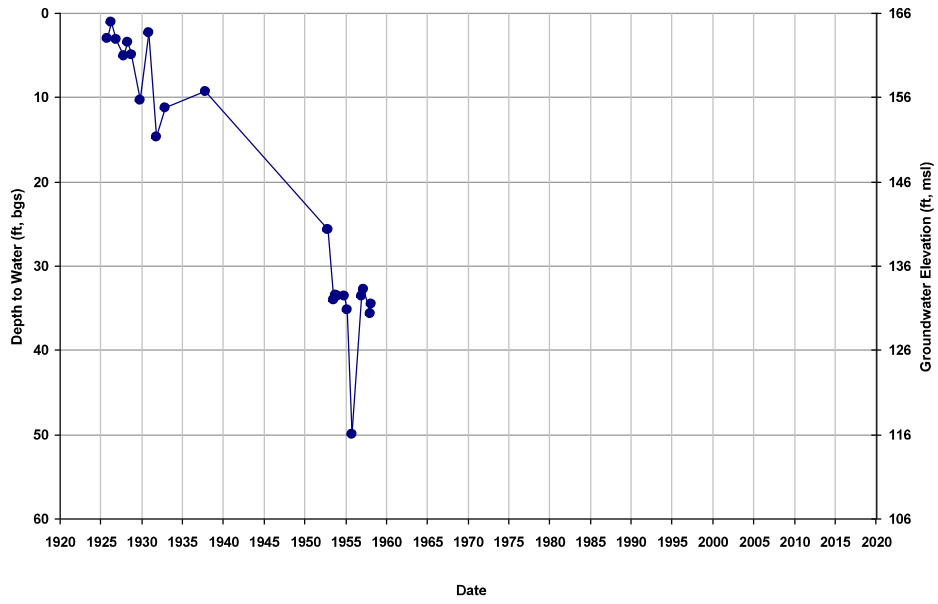
Well ID: 11S15E04H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 170
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



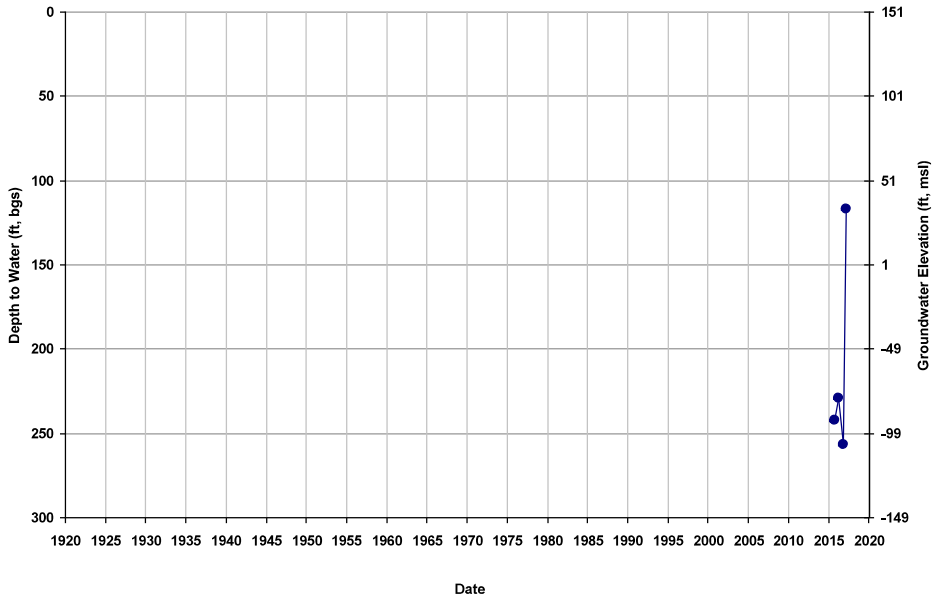
Well ID: 11S15E04P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 165
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



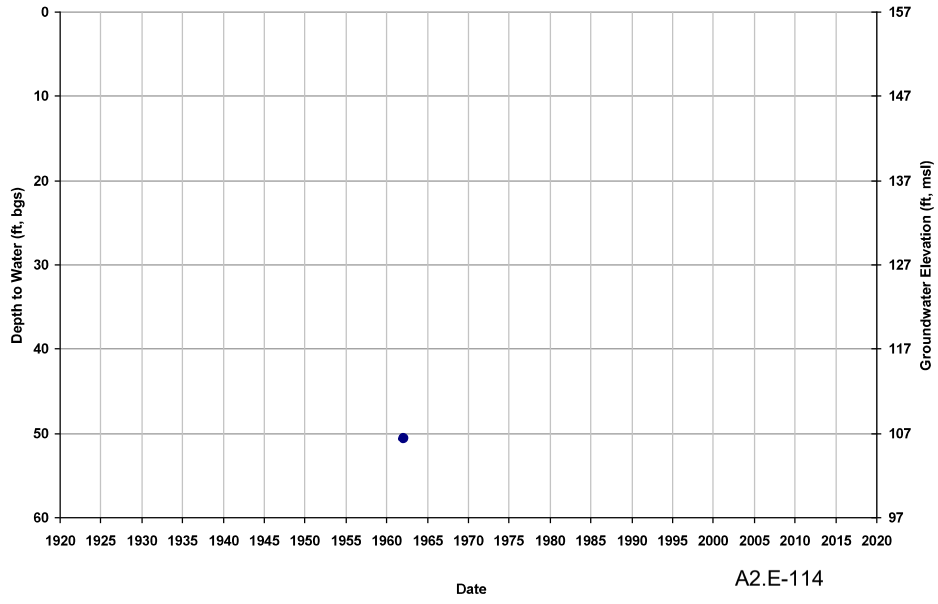
Well ID: 11S15E06L
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 151
Total Depth (ft): 390
Perf Top (ft): 120
Perf Bottom (ft): 390



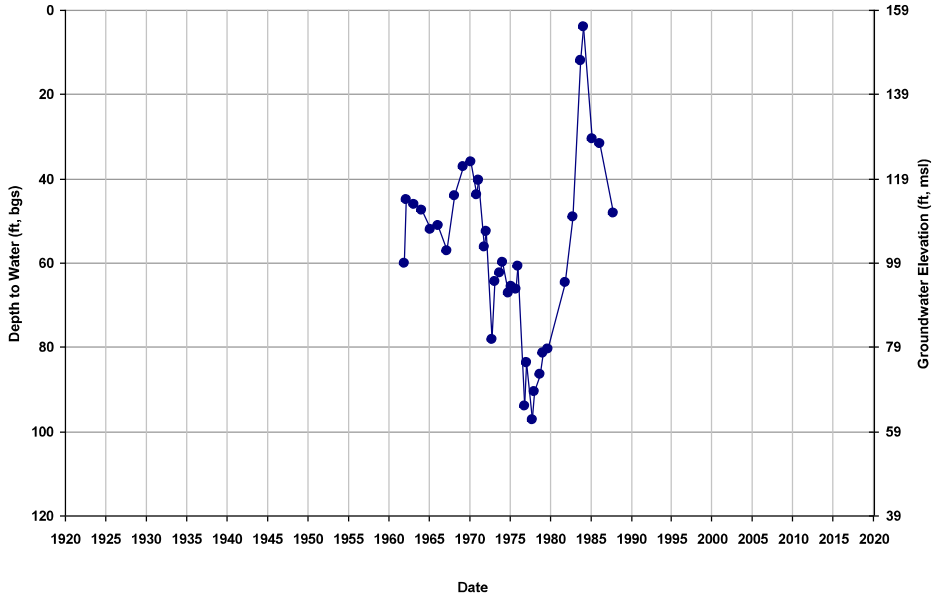
Well ID: 11S15E07K001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 156
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



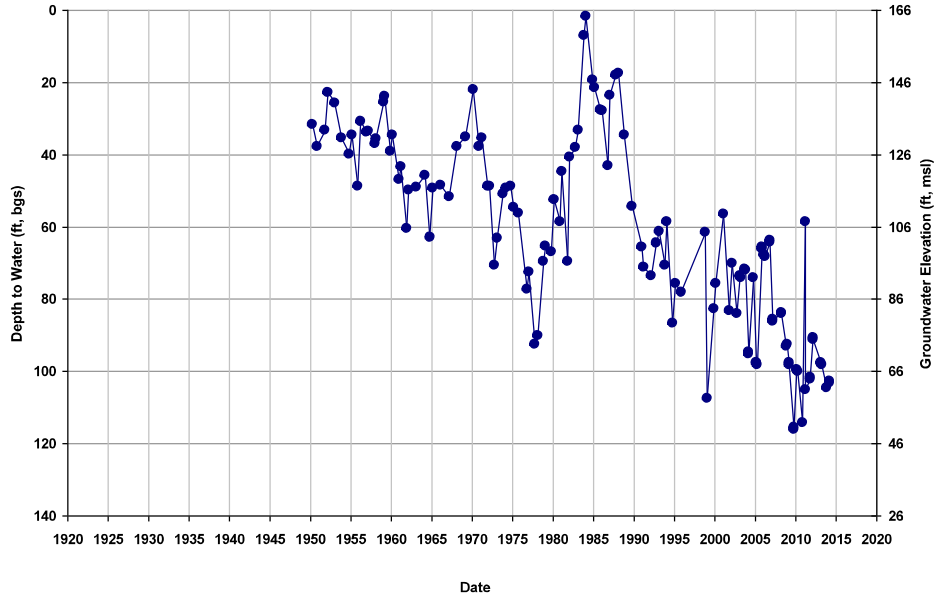
Well ID: 11S15E07R001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



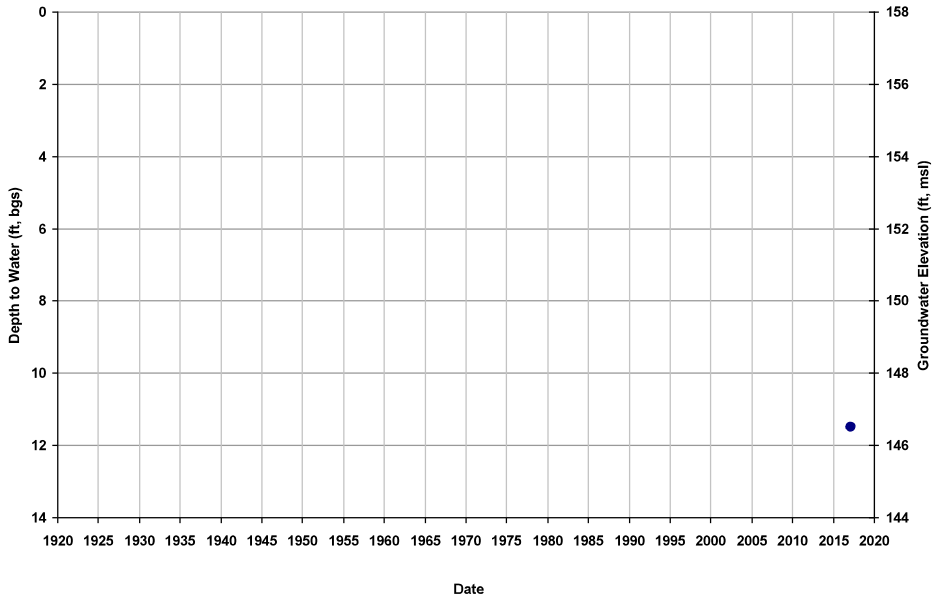
Well ID: 11S15E09C001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 166
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



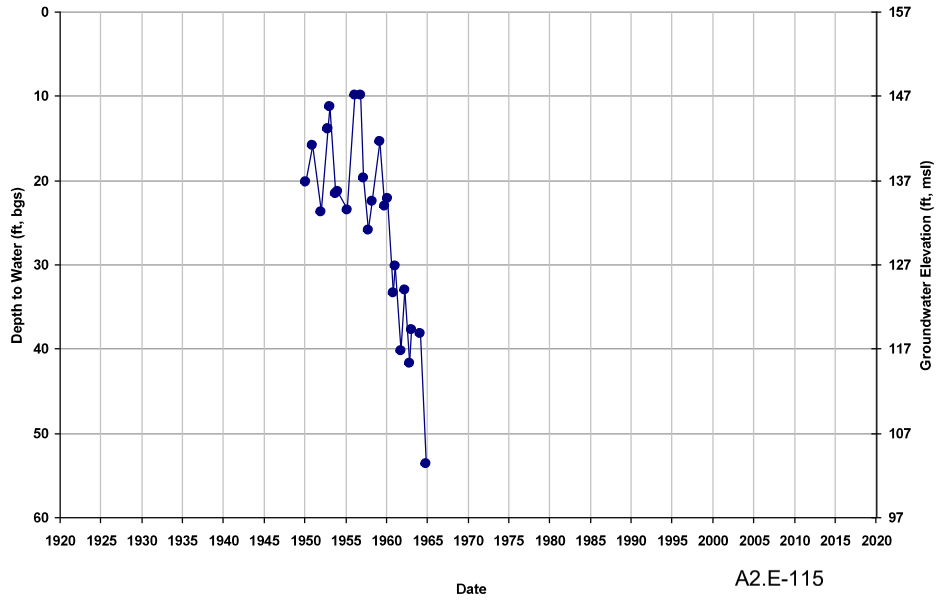
Well ID: 11S15E17P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 158
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



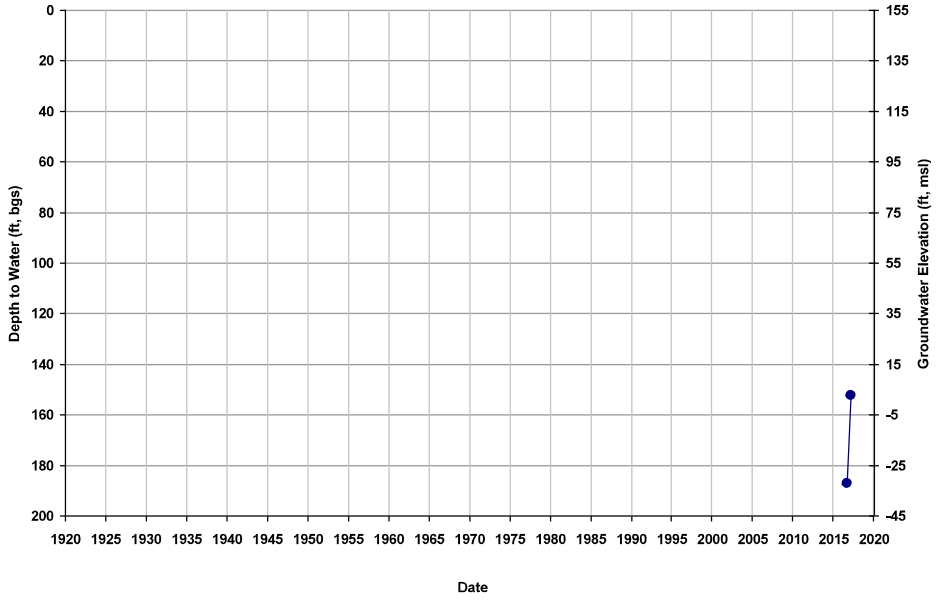
Well ID: 11S15E18H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 157
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



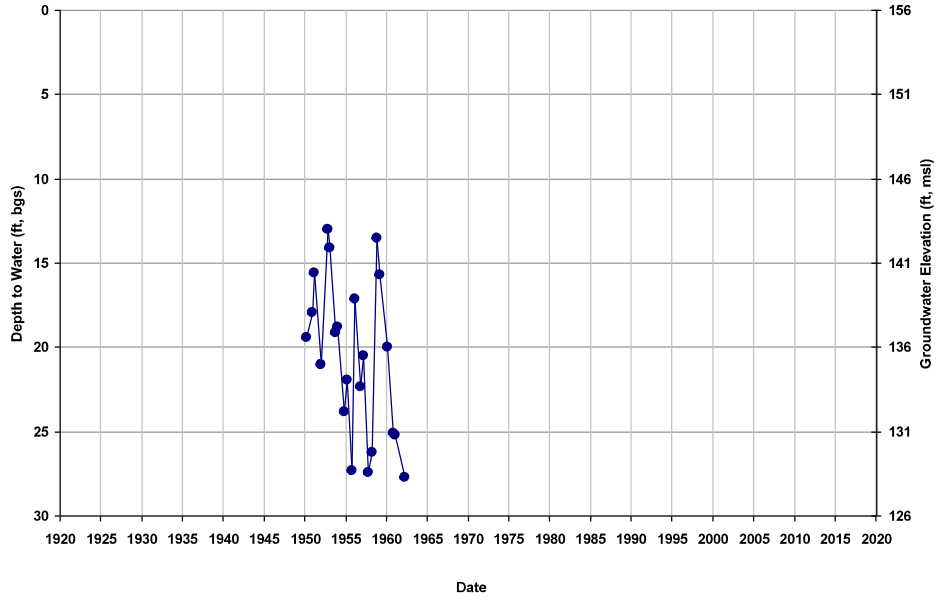
Well ID: 11S15E18P001M
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 155
Total Depth (ft): 700
Perf Top (ft): 265
Perf Bottom (ft): 696



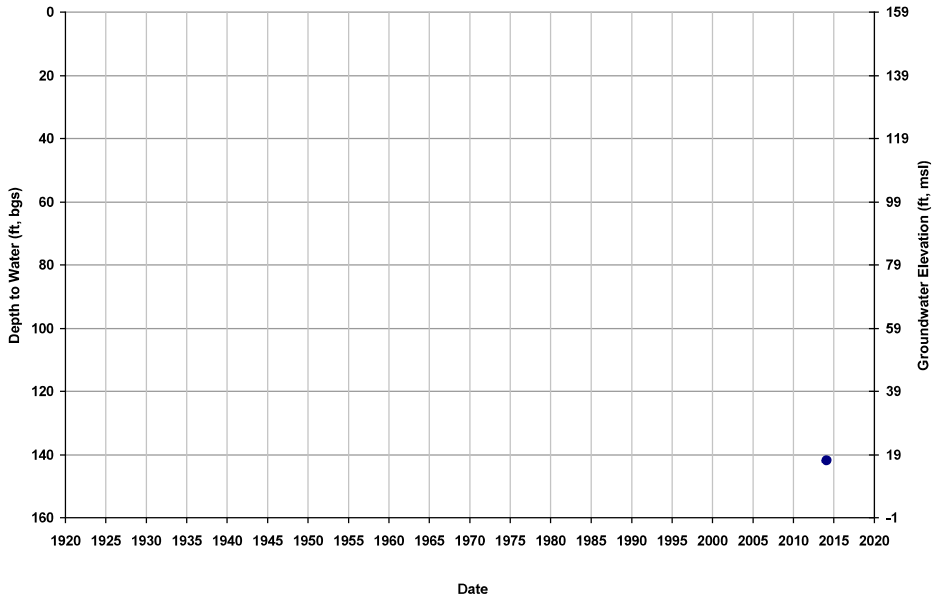
Well ID: 11S15E19H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 156
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



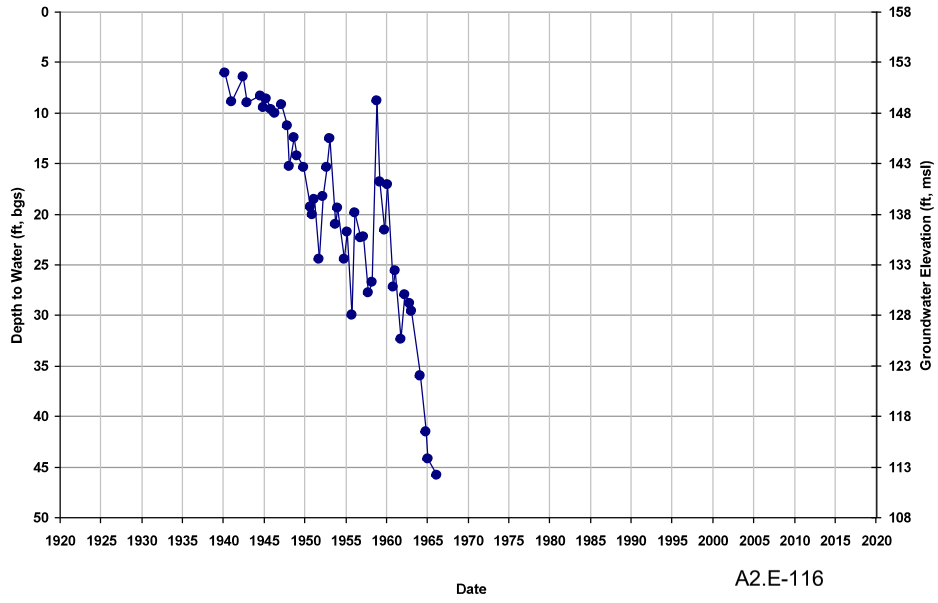
Well ID: 11S15E20Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



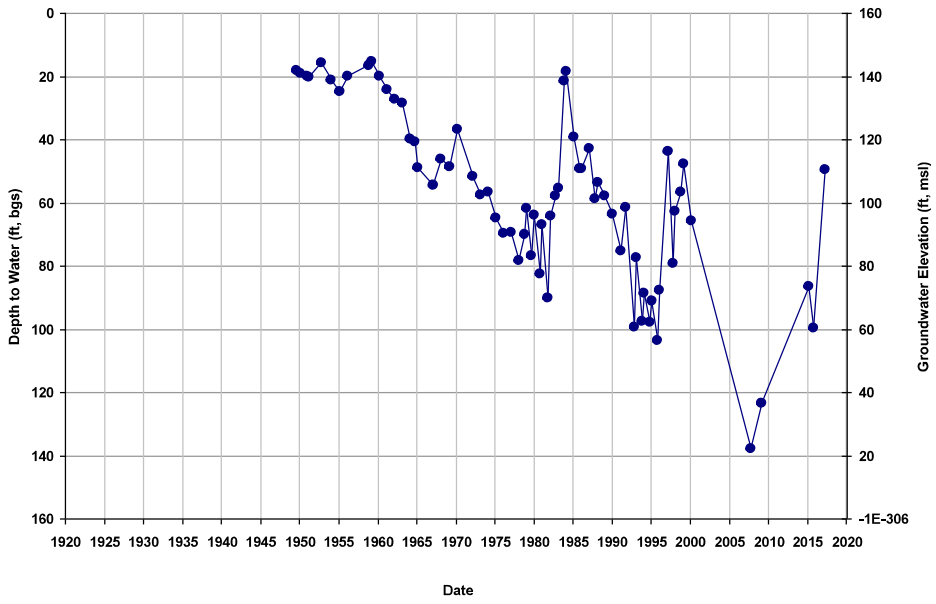
Well ID: 11S15E29G001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 158
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



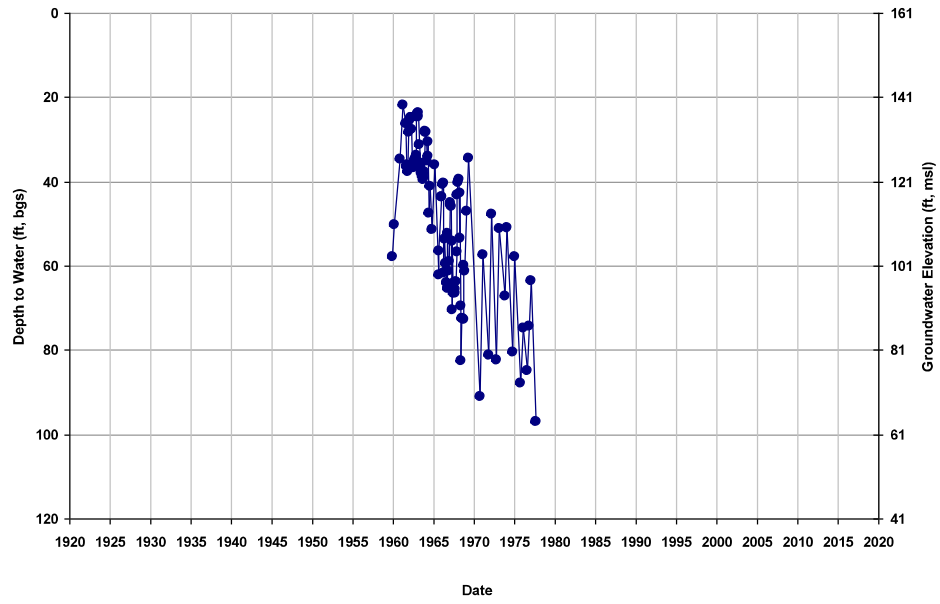
Well ID: 11S15E29H001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 159
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



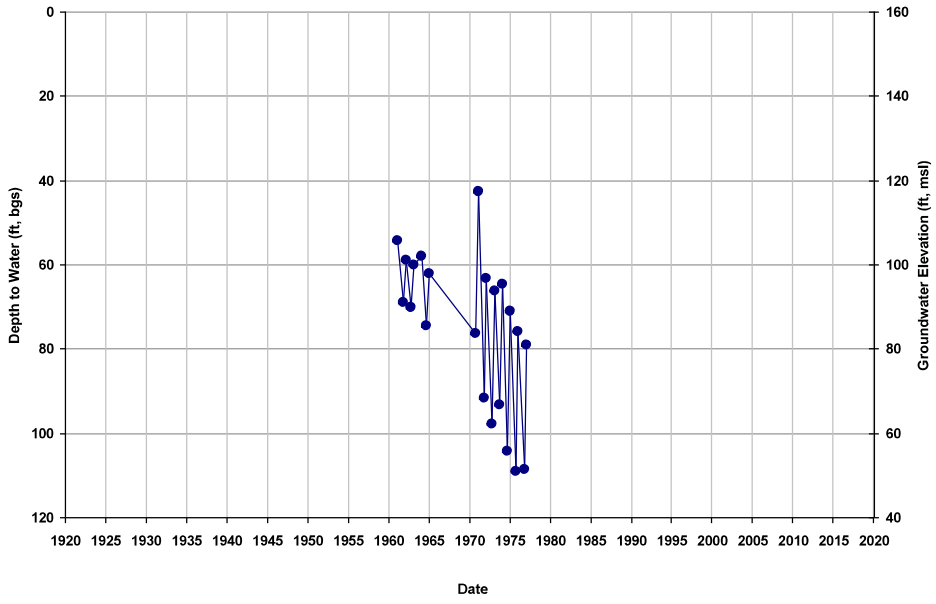
Well ID: 11S15E33P001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 161
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



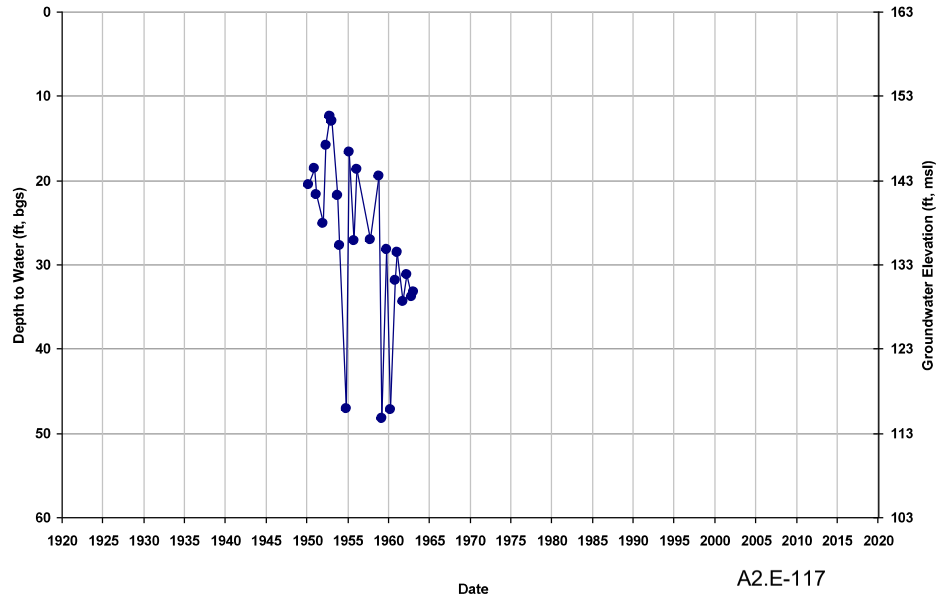
Well ID: 11S15E33P004M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 160
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



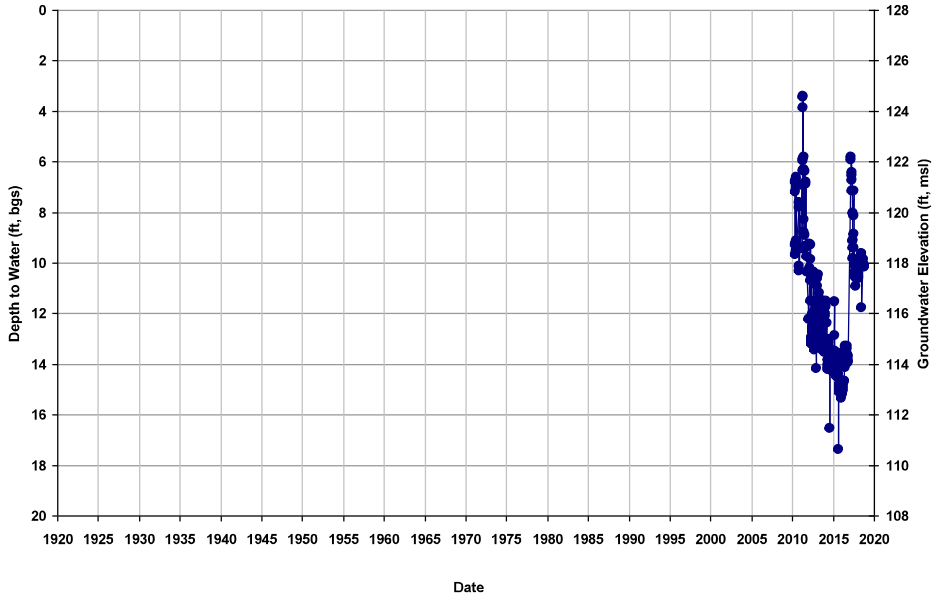
Well ID: 11S15E33Q001M
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 163
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



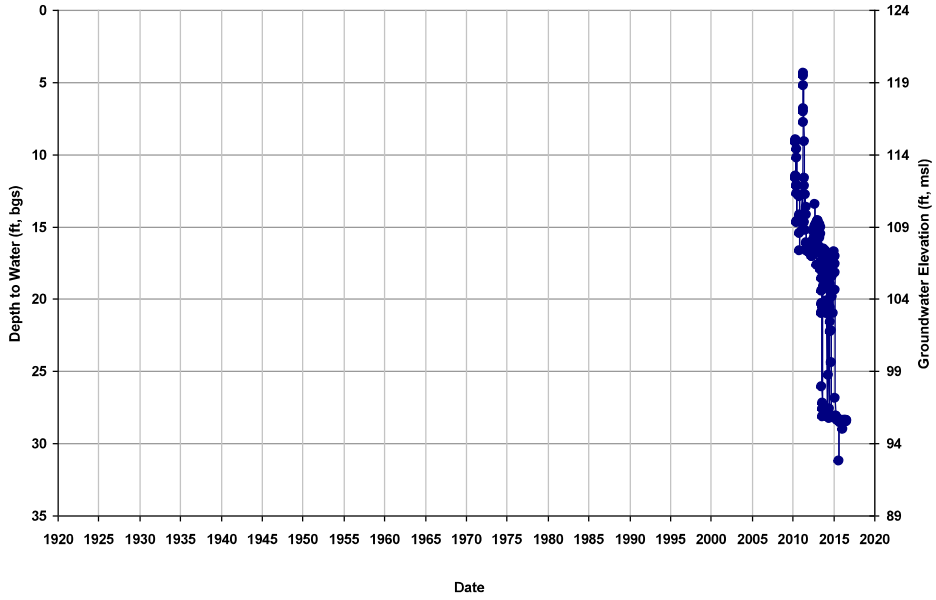
Well ID: SJRRP_MW-10-78
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 127
Total Depth (ft): 28
Perf Top (ft): 10
Perf Bottom (ft): 25



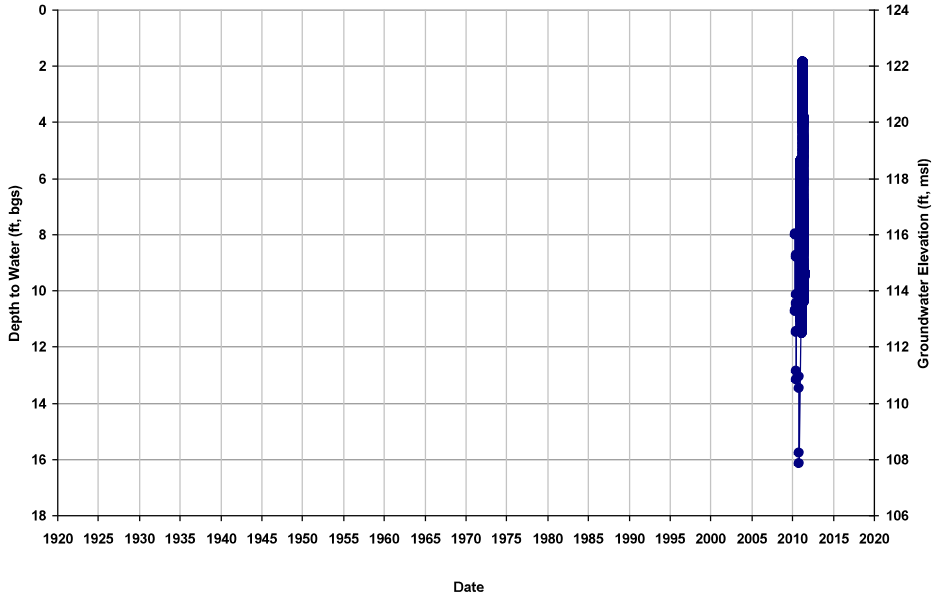
Well ID: SJRRP_MW-10-80
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 123
Total Depth (ft): 27.9
Perf Top (ft): 10
Perf Bottom (ft): 25



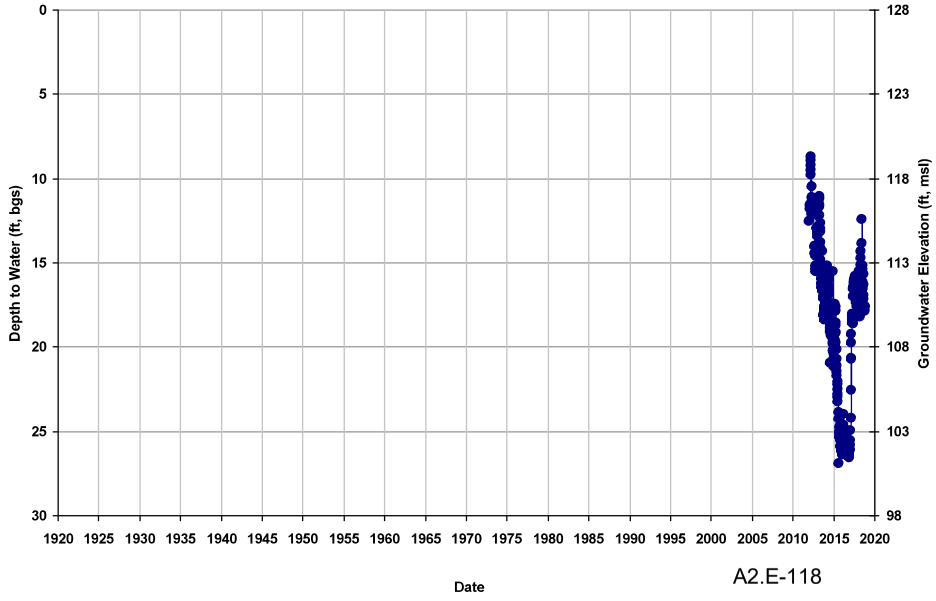
Well ID: SJRRP_MW-10-89
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 123
Total Depth (ft): 26.4
Perf Top (ft): 10
Perf Bottom (ft): 25



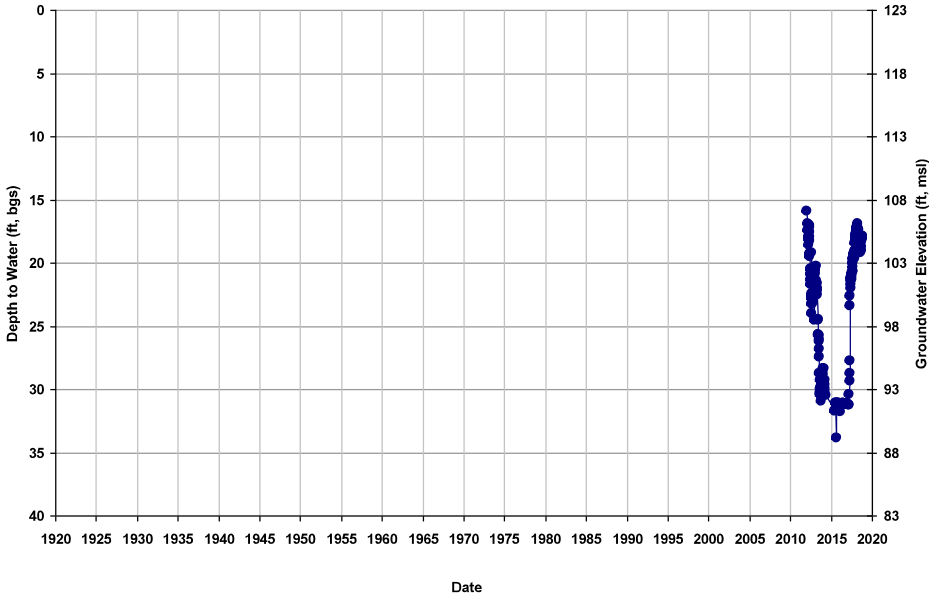
Well ID: SJRRP_MW-11-161
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 127
Total Depth (ft): 30
Perf Top (ft): NA
Perf Bottom (ft): NA



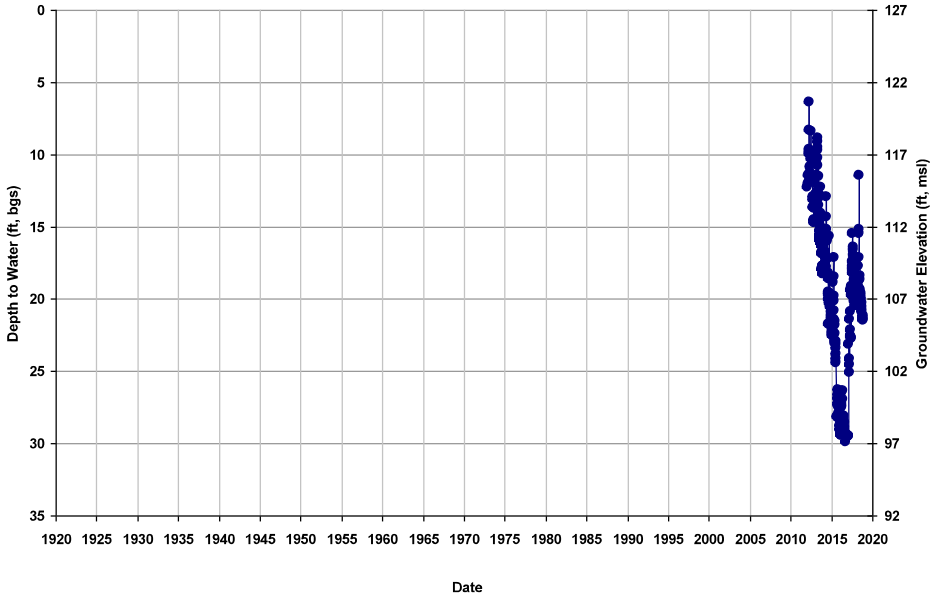
Well ID: SJRRP_MW-11-162
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 123
Total Depth (ft): 30
Perf Top (ft): NA
Perf Bottom (ft): NA



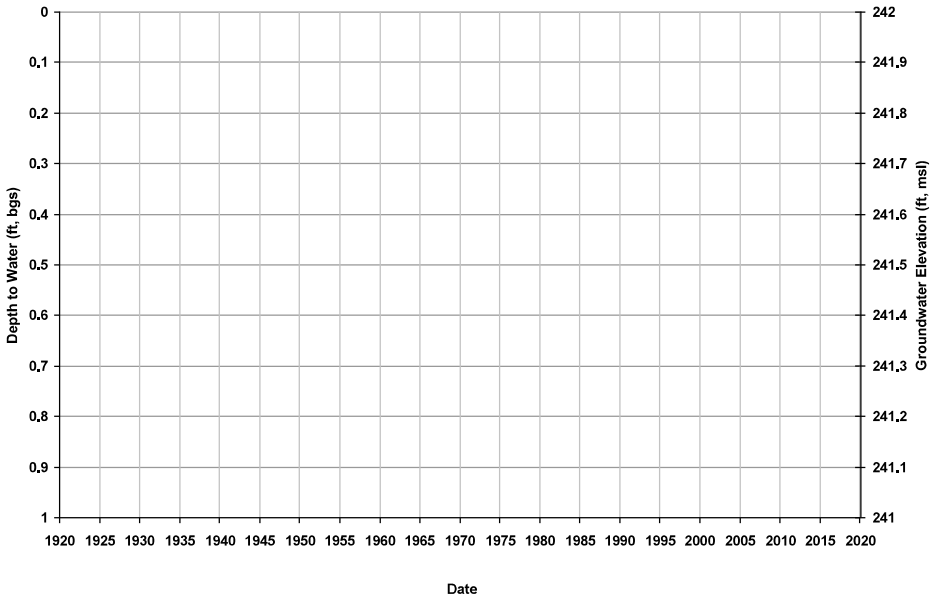
Well ID: SJRRP_MW-11-163
Depth Zone: Upper, Shallow GW; Wit
Subbasin: Chowchilla

GSE (ft, msl): 127
Total Depth (ft): 29
Perf Top (ft): NA
Perf Bottom (ft): NA



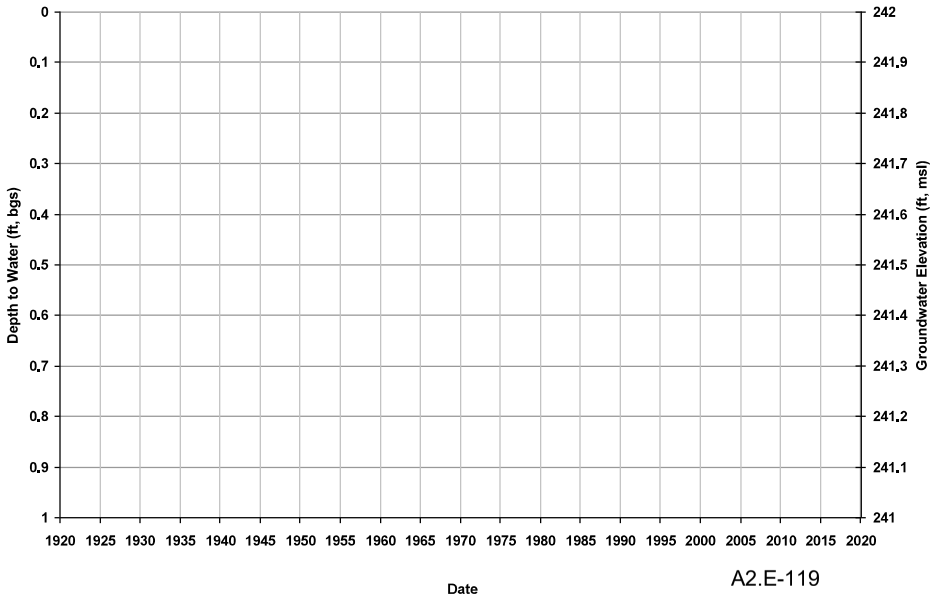
Well ID: SL0603935695 - MW-24
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 242
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



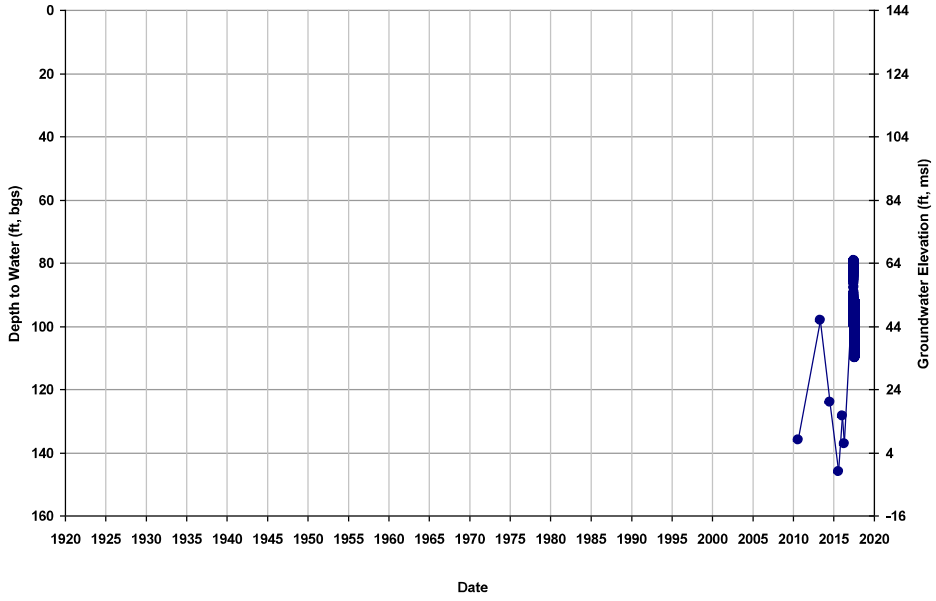
Well ID: SL0603935695 - VEW-11
Depth Zone: Unknown; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 242
Total Depth (ft): NA
Perf Top (ft): NA
Perf Bottom (ft): NA



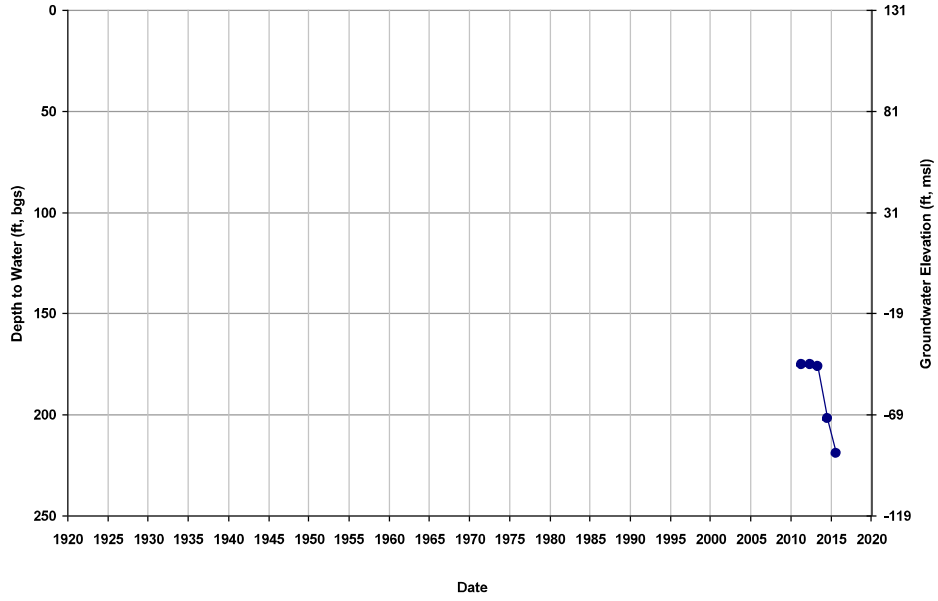
Well ID: TTR-10
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): 222
Perf Top (ft): 158
Perf Bottom (ft): 222



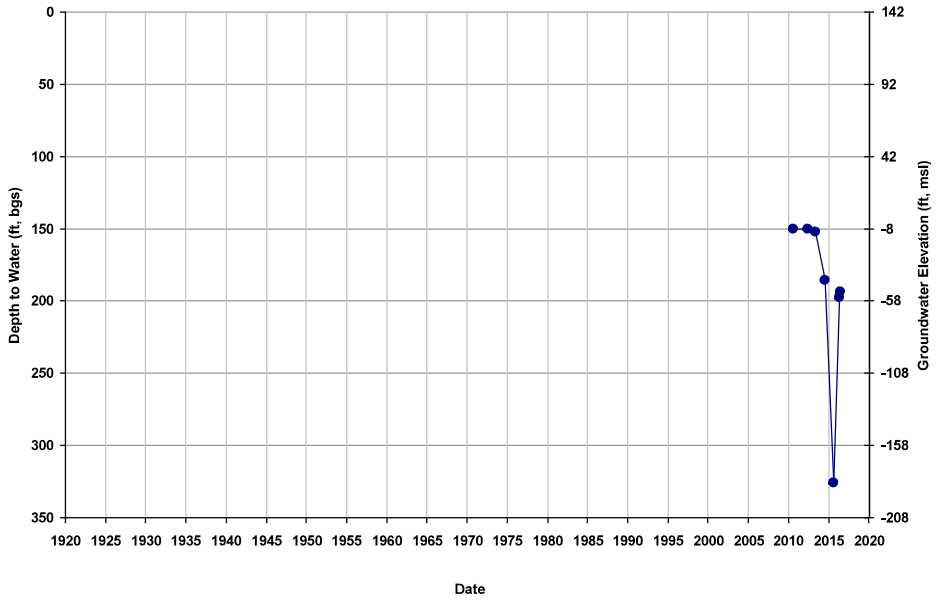
Well ID: TTR-11
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 131
Total Depth (ft): 800
Perf Top (ft): 290
Perf Bottom (ft): 780



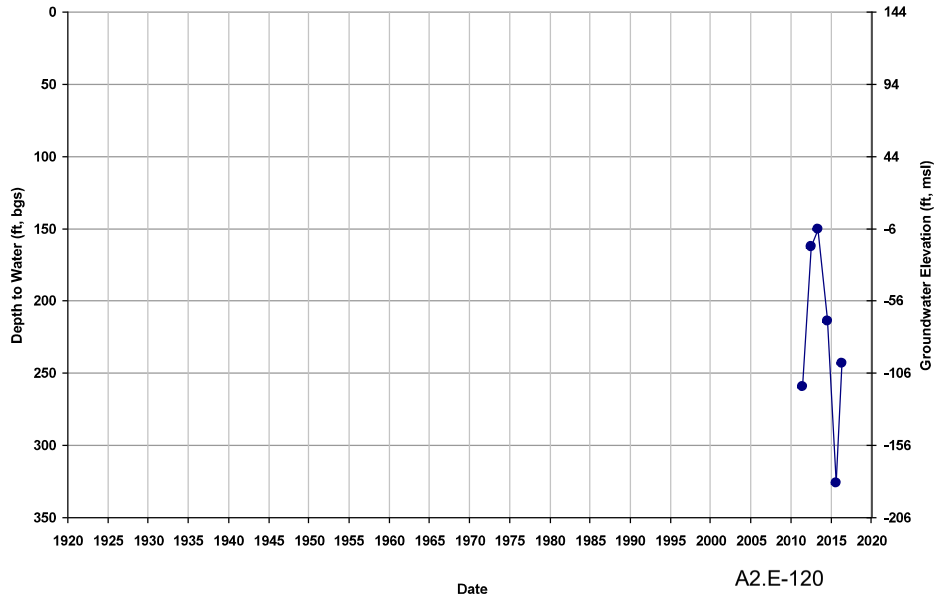
Well ID: TTR-12
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 467
Perf Top (ft): 160
Perf Bottom (ft): 440



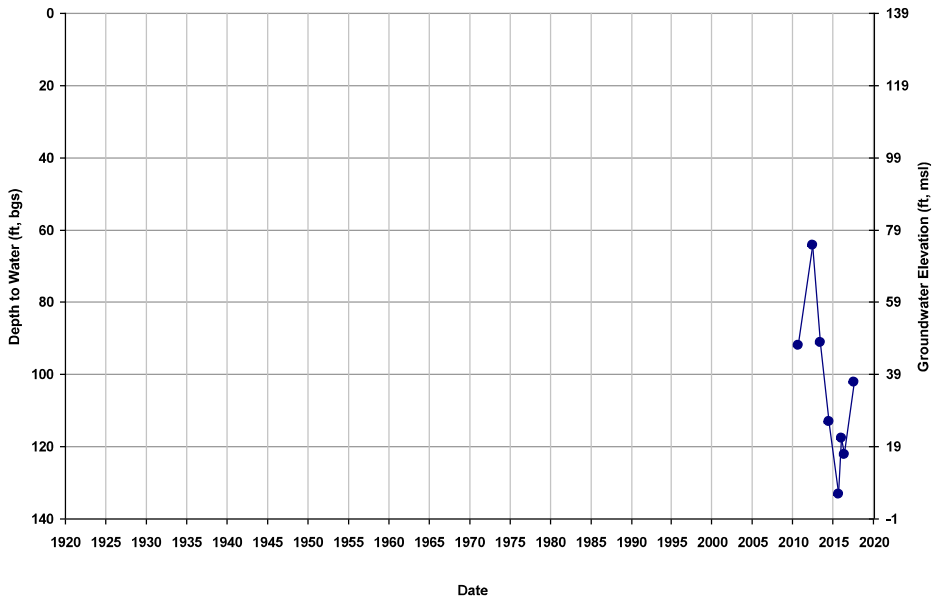
Well ID: TTR-13
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): 413
Perf Top (ft): 133
Perf Bottom (ft): 413



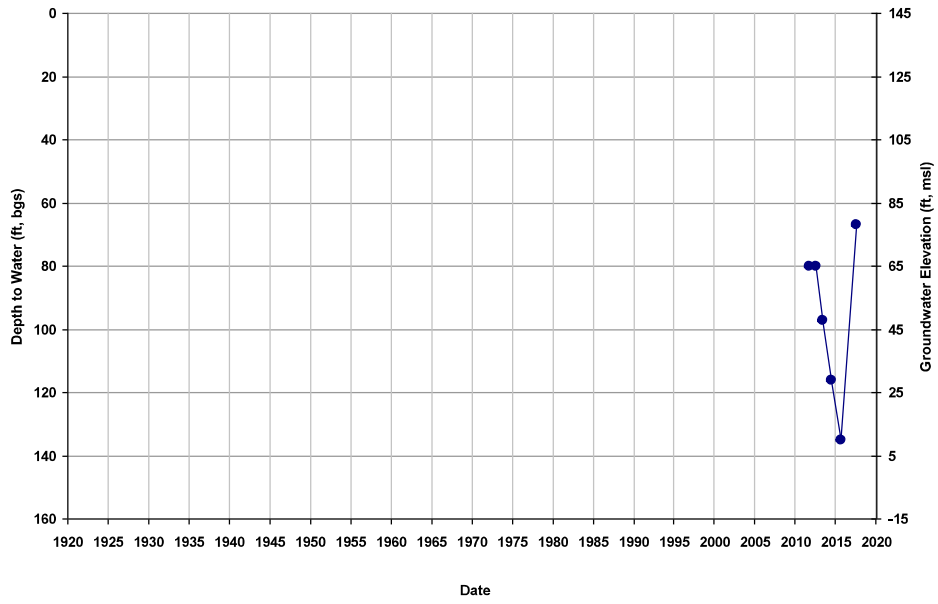
Well ID: TTR-14
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 139
Total Depth (ft): 219
Perf Top (ft): 137
Perf Bottom (ft): 219



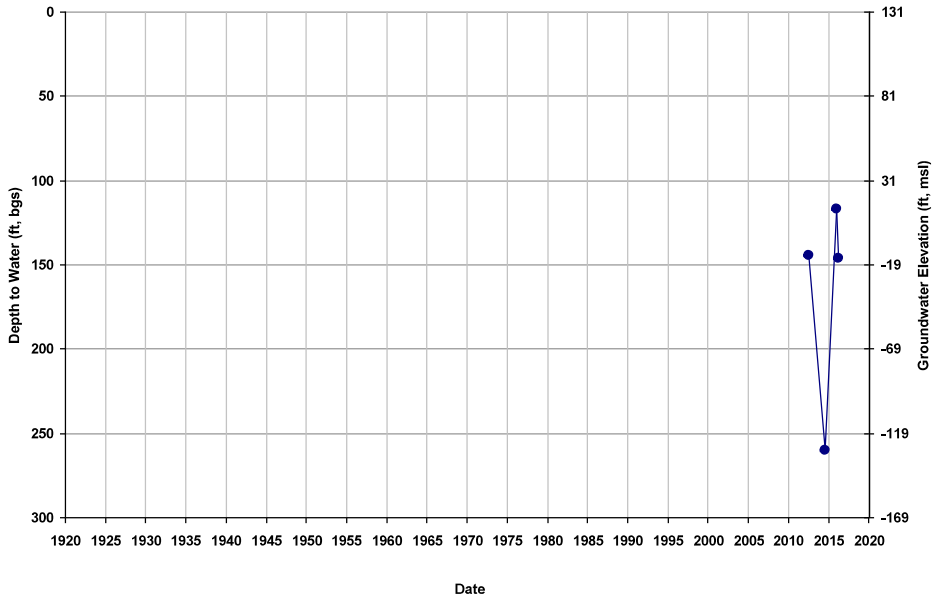
Well ID: TTR-15
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 145
Total Depth (ft): 194
Perf Top (ft): 148
Perf Bottom (ft): 194



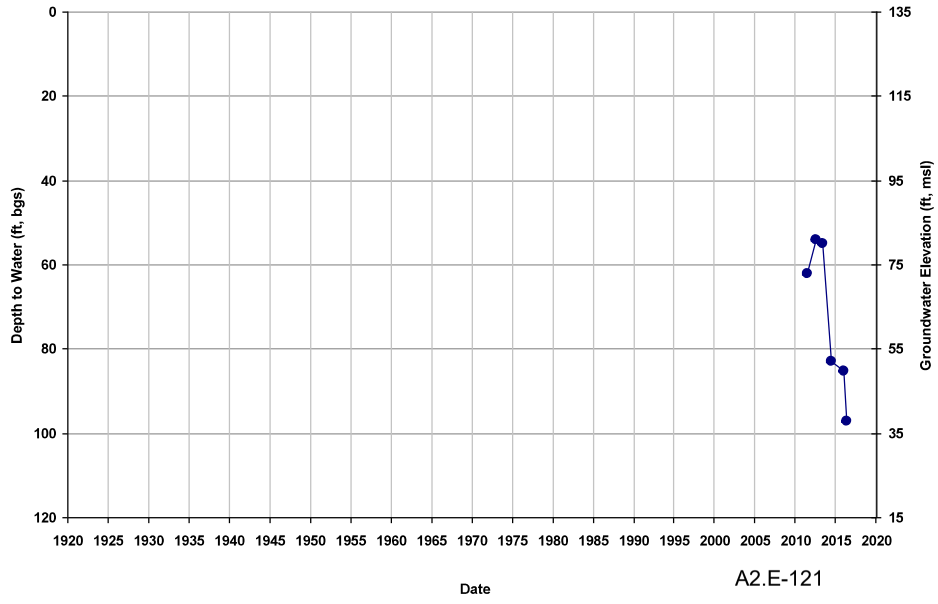
Well ID: TTR-16
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 131
Total Depth (ft): 857
Perf Top (ft): 292
Perf Bottom (ft): 854



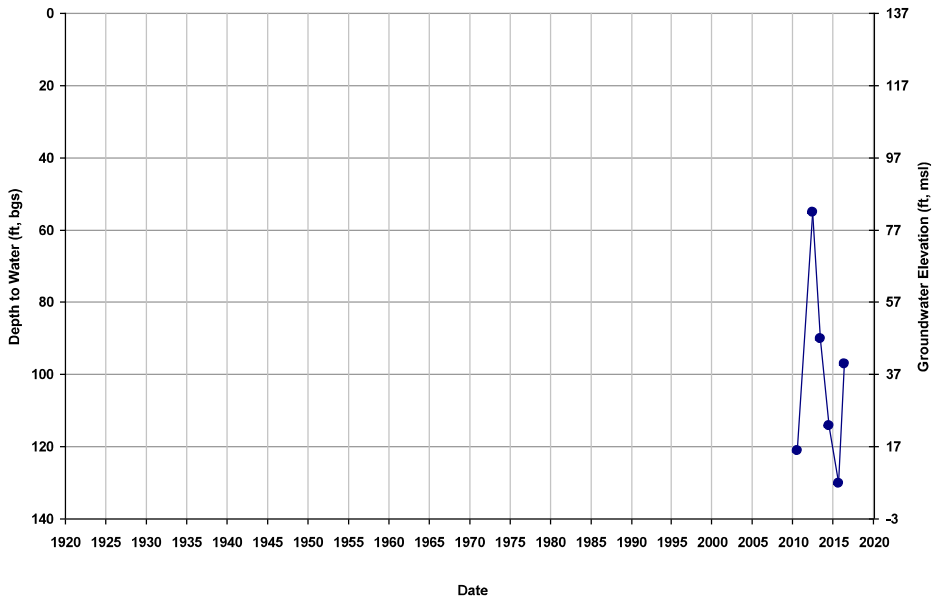
Well ID: TTR-17
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): 256
Perf Top (ft): 175
Perf Bottom (ft): 252



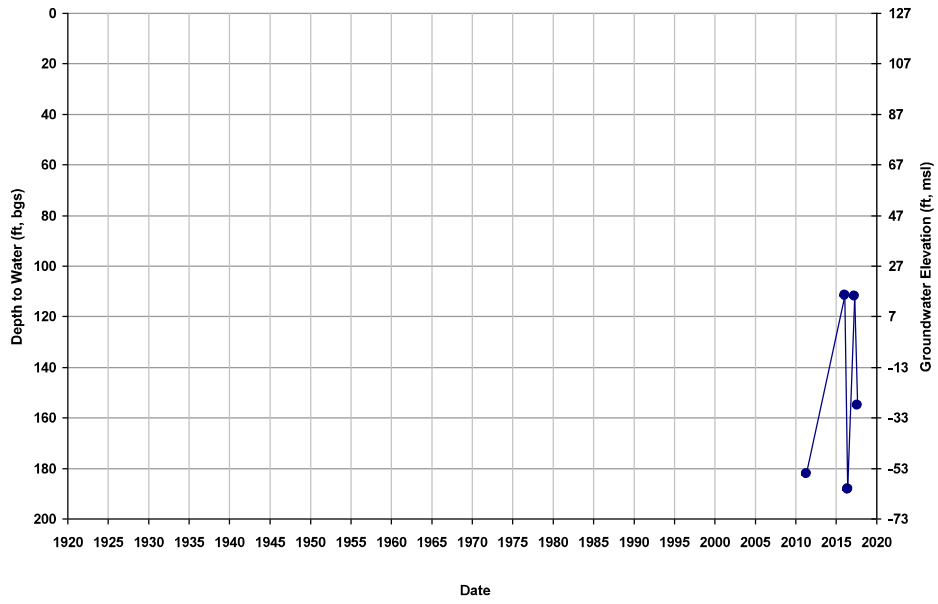
Well ID: TTR-18
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 211
Perf Top (ft): 166
Perf Bottom (ft): 213



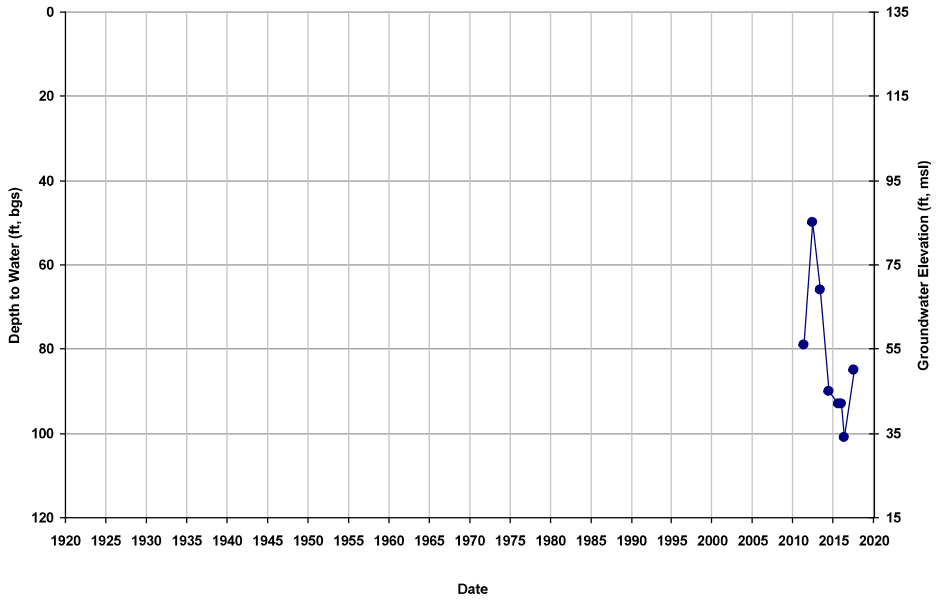
Well ID: TTR-19
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 127
Total Depth (ft): 860
Perf Top (ft): 290
Perf Bottom (ft): 840



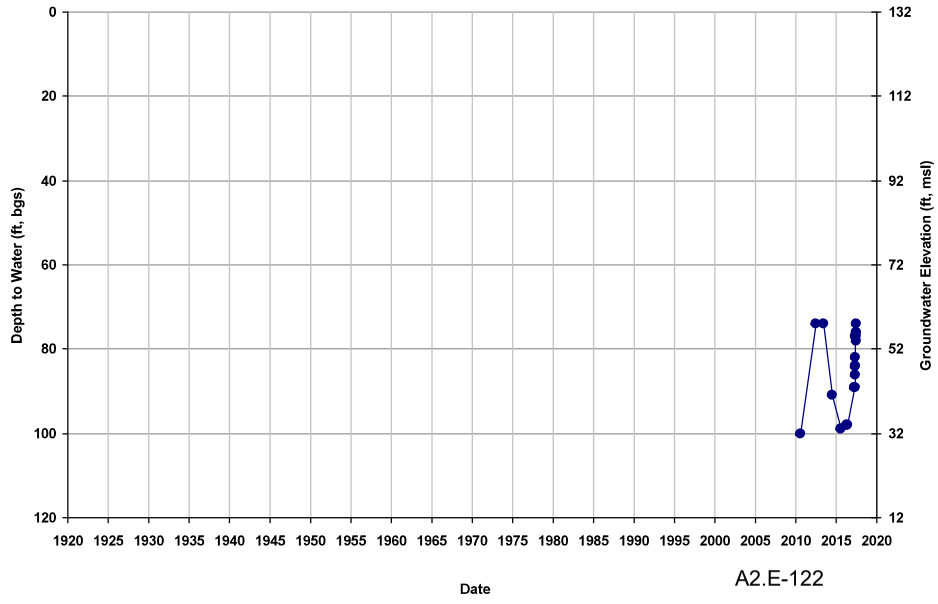
Well ID: TTR-2
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 135
Total Depth (ft): 213
Perf Top (ft): 157
Perf Bottom (ft): 209



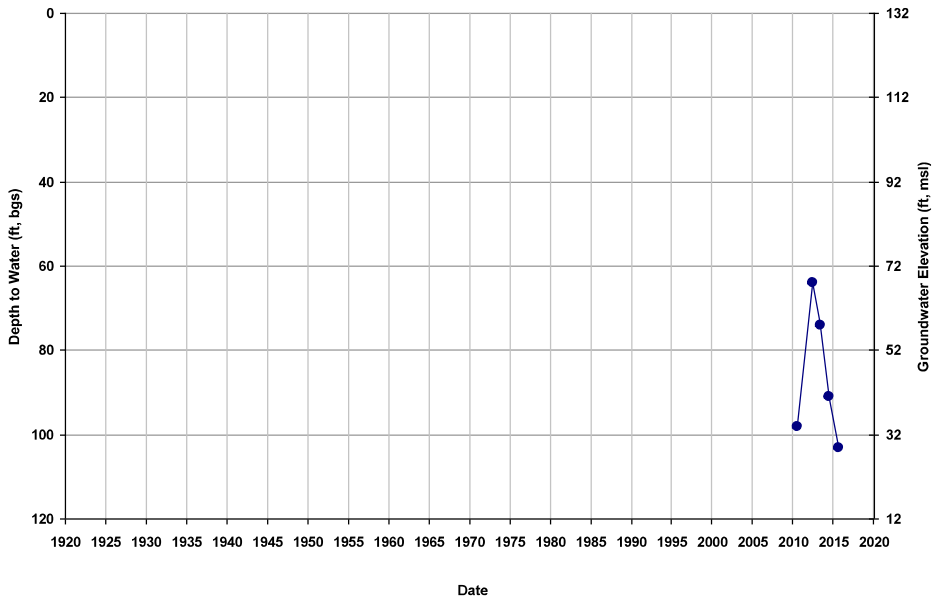
Well ID: TTR-20
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): 200
Perf Top (ft): 145
Perf Bottom (ft): 200



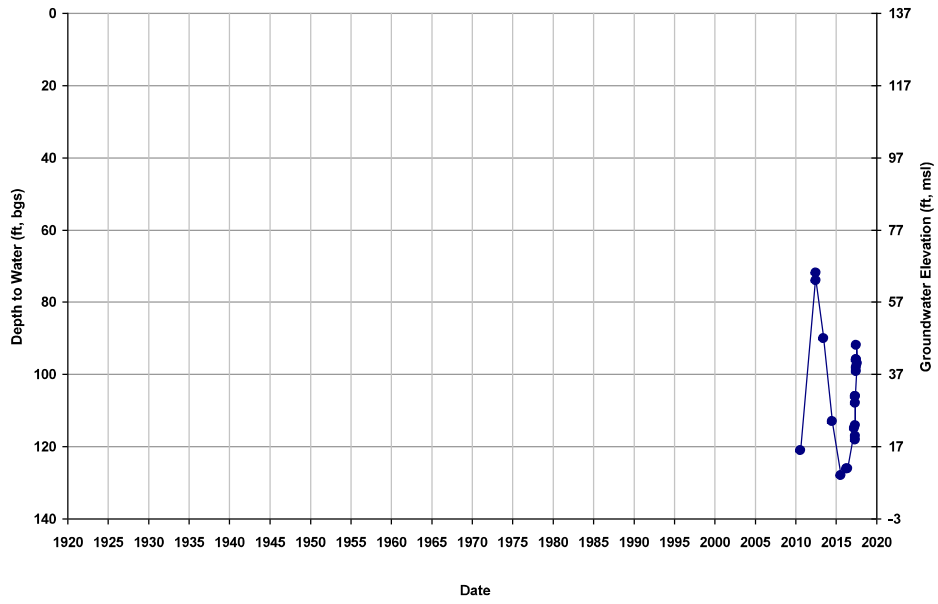
Well ID: TTR-21
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): 158
Perf Top (ft): 71
Perf Bottom (ft): 203



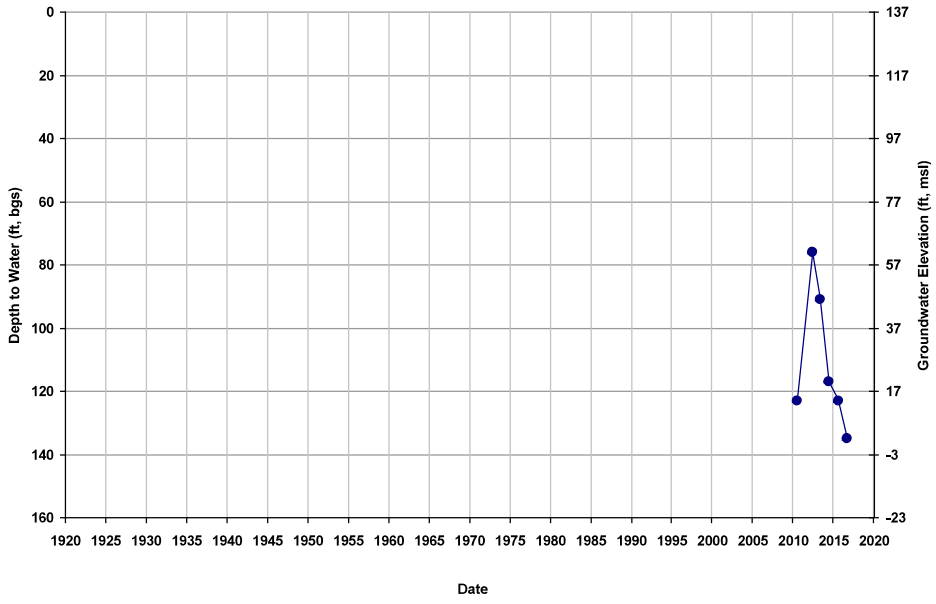
Well ID: TTR-22
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 304
Perf Top (ft): 170
Perf Bottom (ft): 298



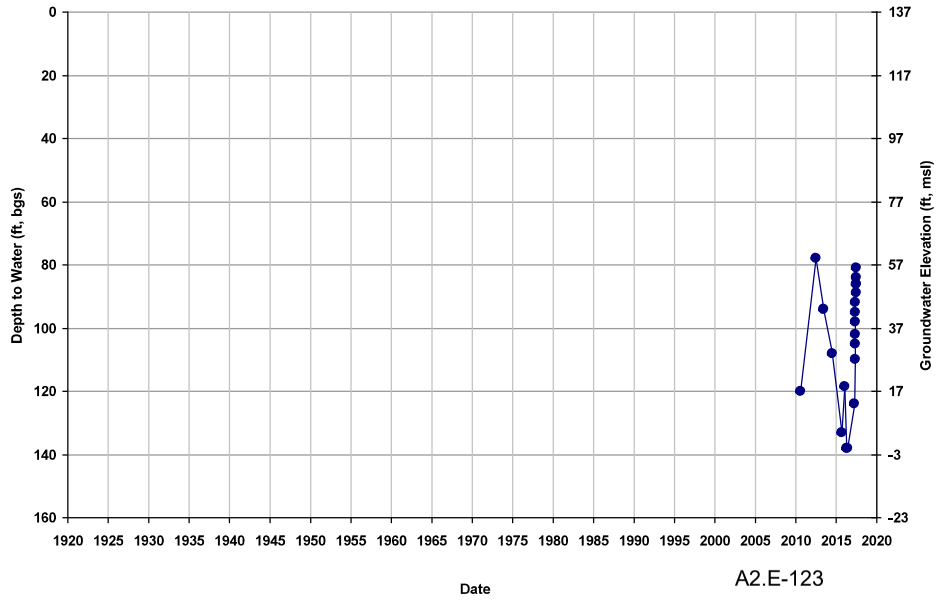
Well ID: TTR-23
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 212
Perf Top (ft): 170
Perf Bottom (ft): 208



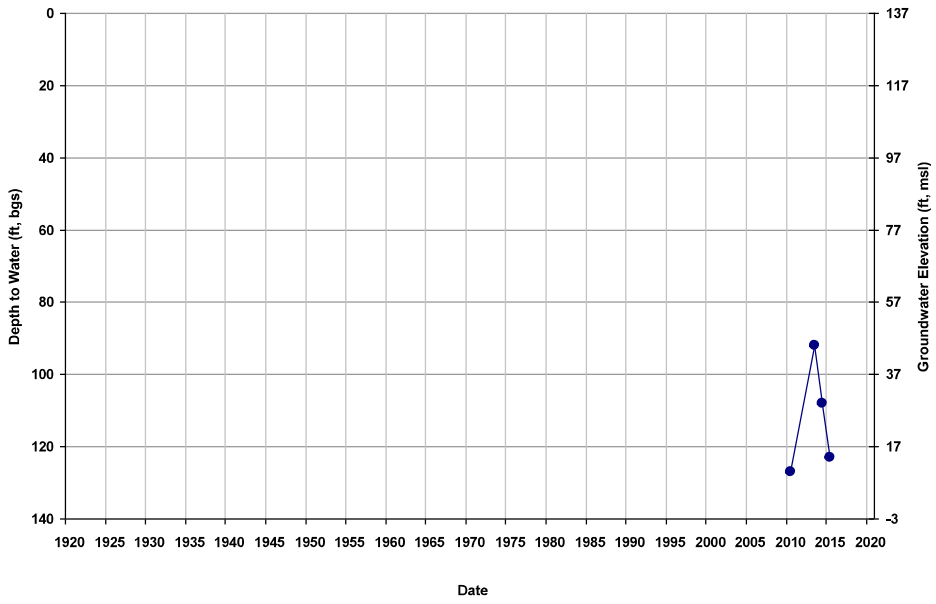
Well ID: TTR-24
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 188
Perf Top (ft): 137
Perf Bottom (ft): 188



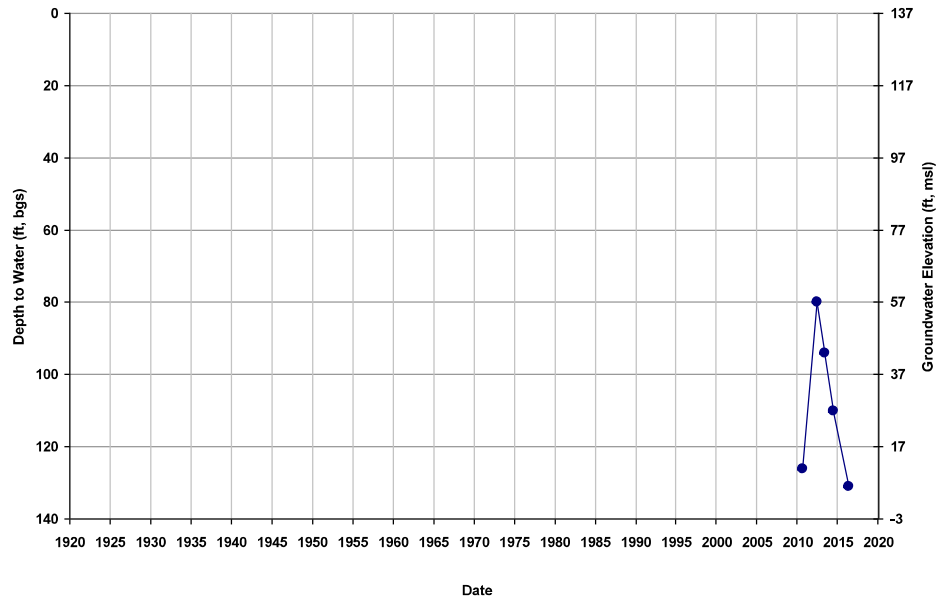
Well ID: TTR-25
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 211
Perf Top (ft): 167
Perf Bottom (ft): 211



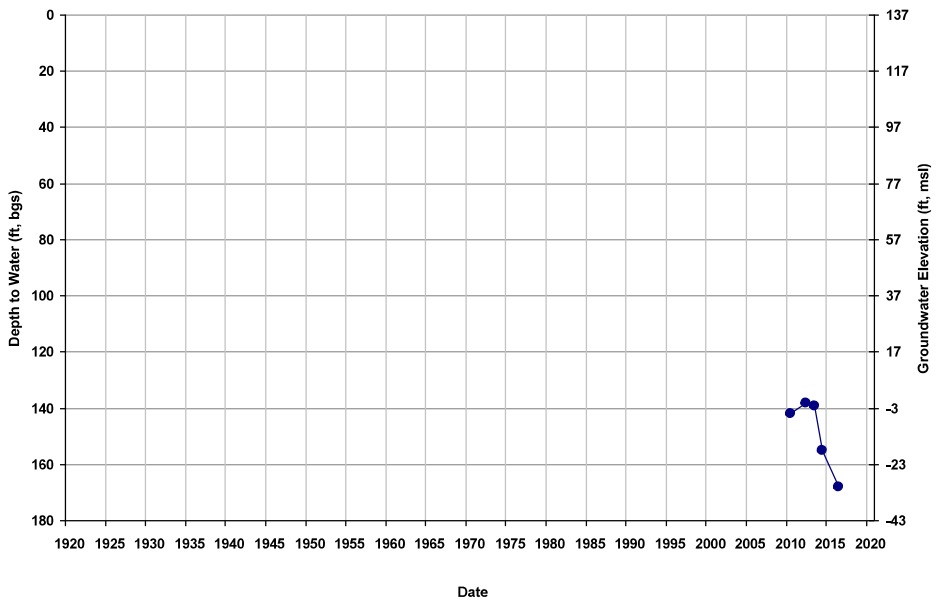
Well ID: TTR-26
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 300
Perf Top (ft): 130
Perf Bottom (ft): 299



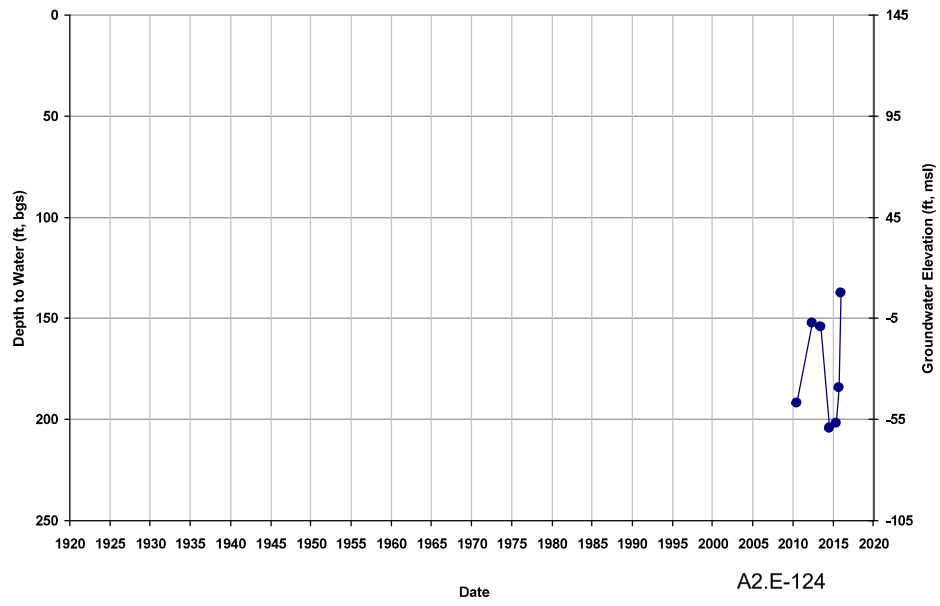
Well ID: TTR-27
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 799
Perf Top (ft): 168
Perf Bottom (ft): 790



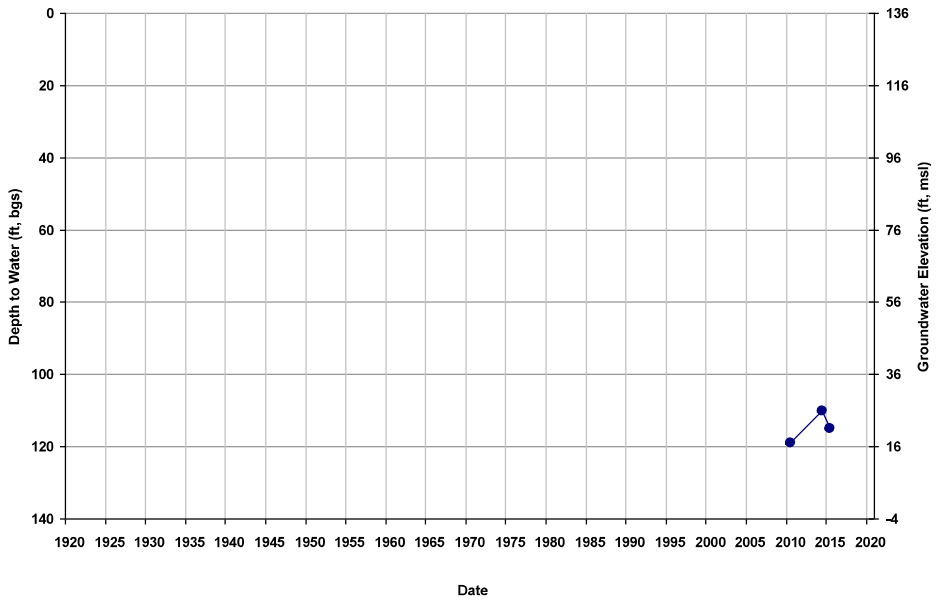
Well ID: TTR-28
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 145
Total Depth (ft): 710
Perf Top (ft): 170
Perf Bottom (ft): 690



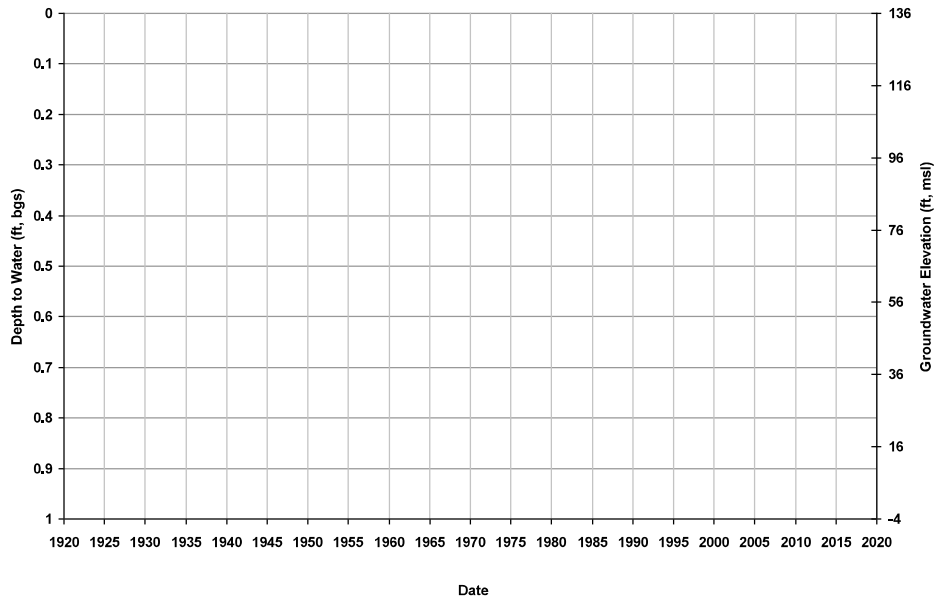
Well ID: TTR-29
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 136
Total Depth (ft): 224
Perf Top (ft): 125
Perf Bottom (ft): 224



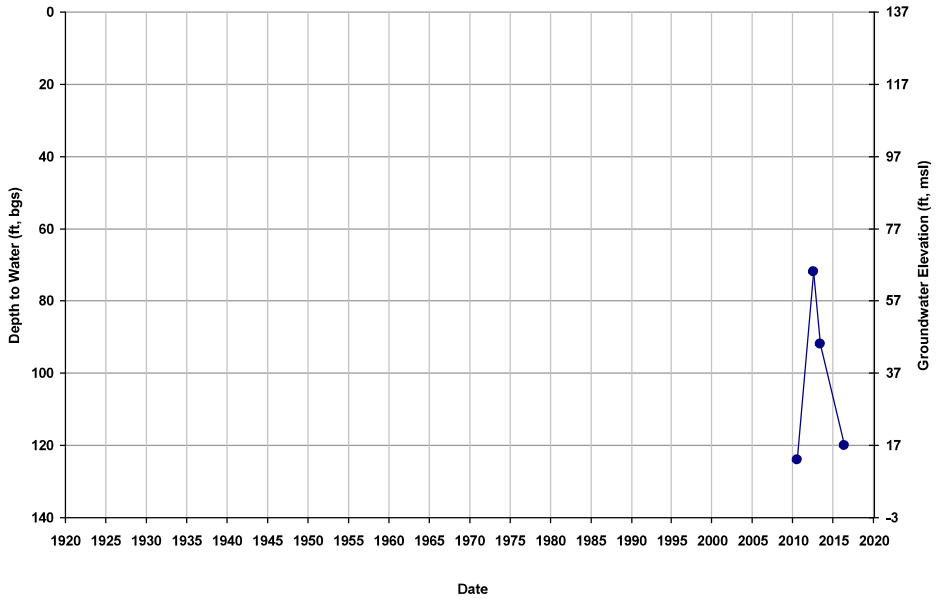
Well ID: TTR-3
Depth Zone: Upper; Outside CC
Subbasin: Chowchilla

GSE (ft, msl):
Total Depth (ft): 219
Perf Top (ft): 143
Perf Bottom (ft): 215



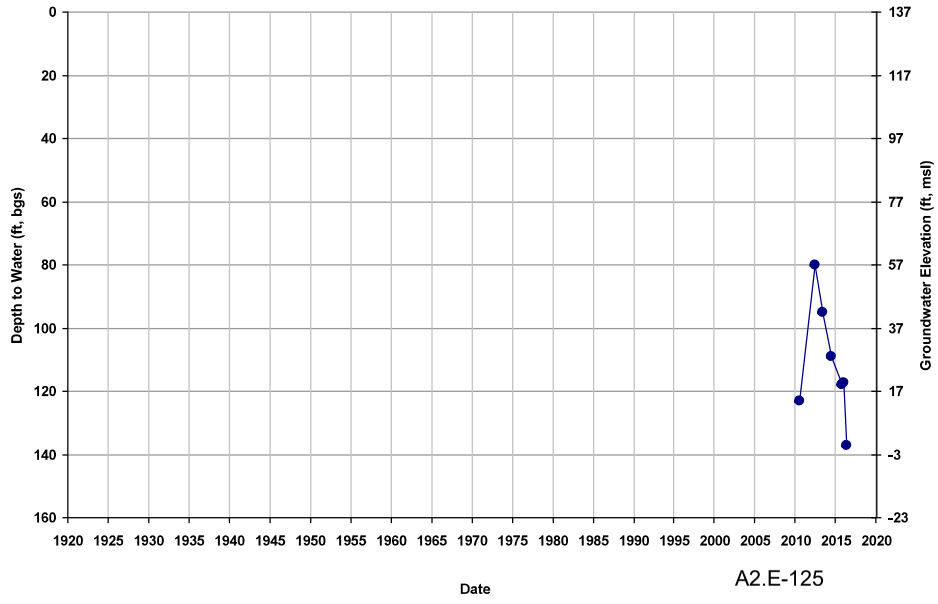
Well ID: TTR-30
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 185
Perf Top (ft): 150
Perf Bottom (ft): 185



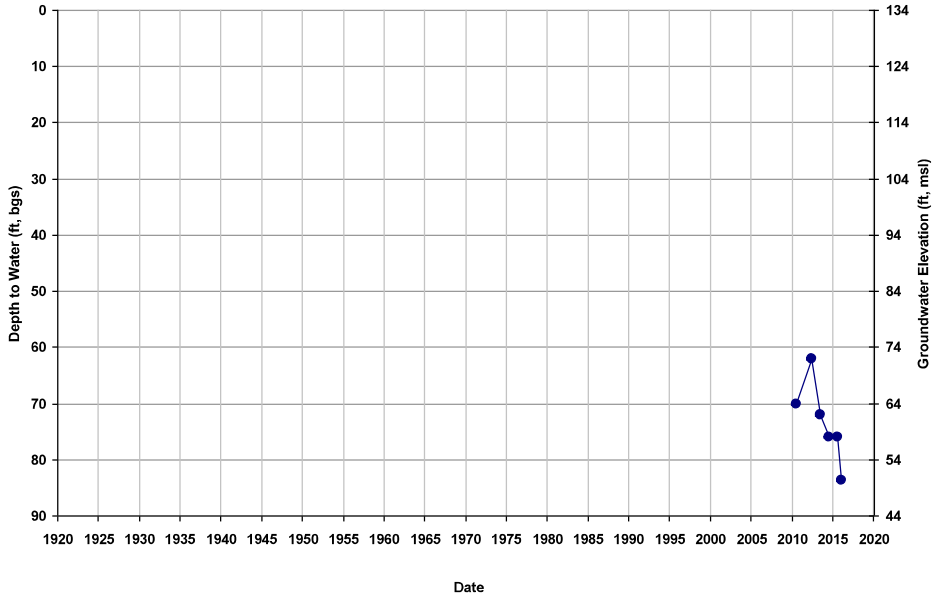
Well ID: TTR-31
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 197
Perf Top (ft): 158
Perf Bottom (ft): 197



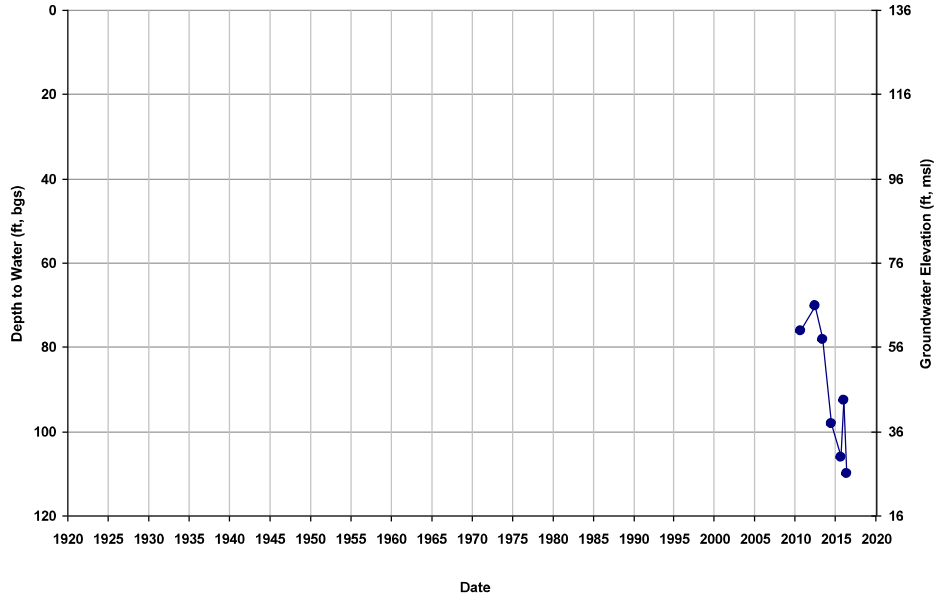
Well ID: TTR-32
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): 236
Perf Top (ft): 100
Perf Bottom (ft): 232



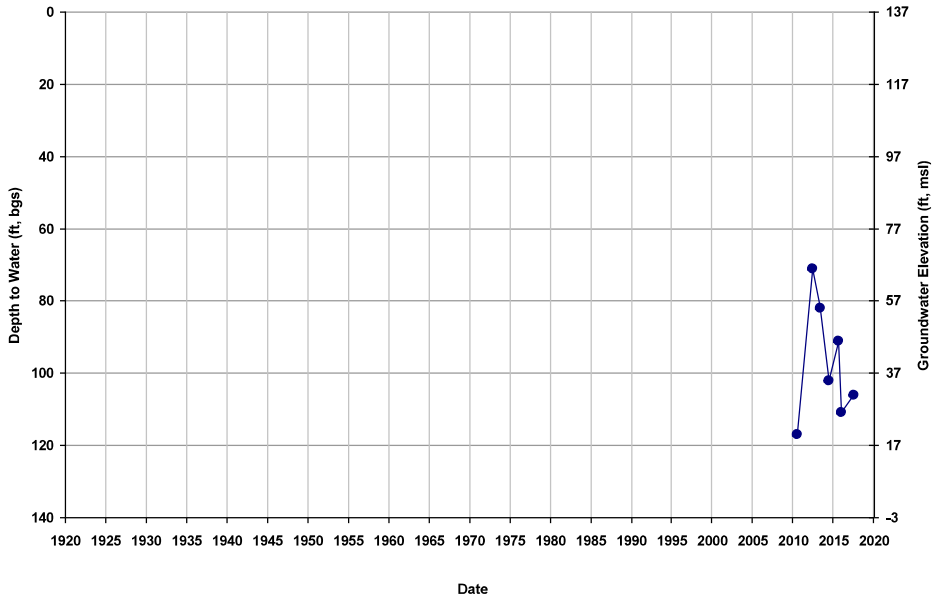
Well ID: TTR-33
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 135
Total Depth (ft): 285
Perf Top (ft): 110
Perf Bottom (ft): 292



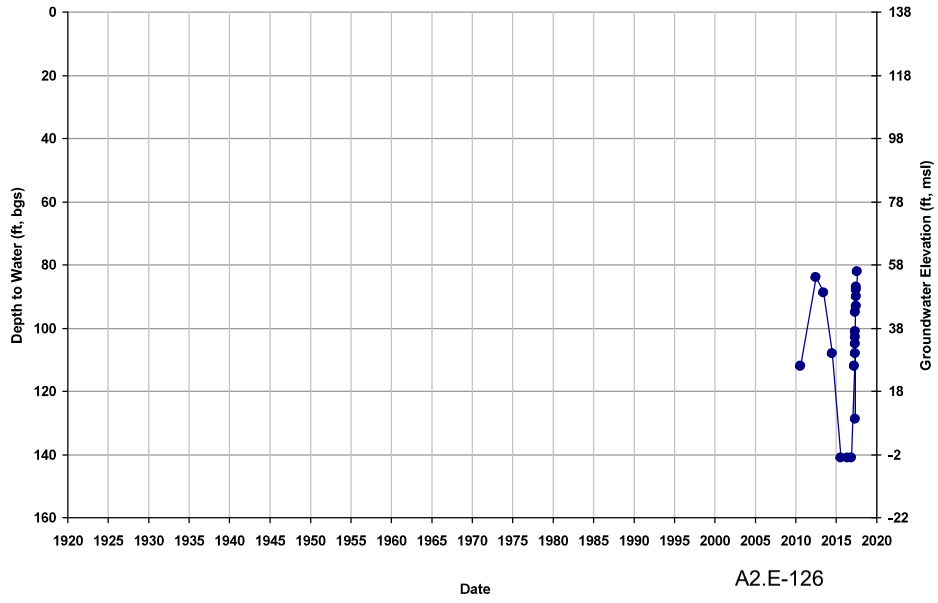
Well ID: TTR-34
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): NA
Perf Top (ft): 92
Perf Bottom (ft): 99



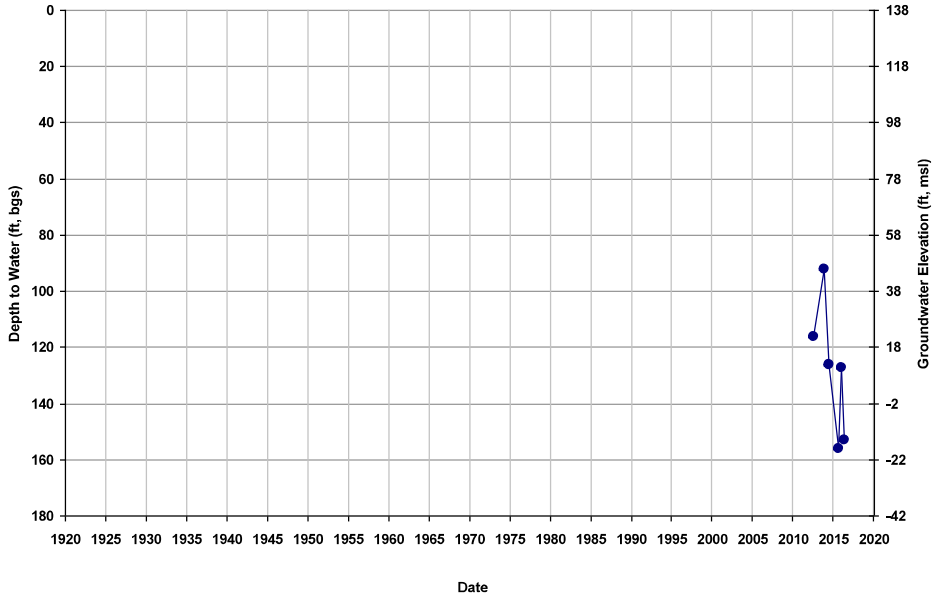
Well ID: TTR-35
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 168
Perf Top (ft): 130
Perf Bottom (ft): 185



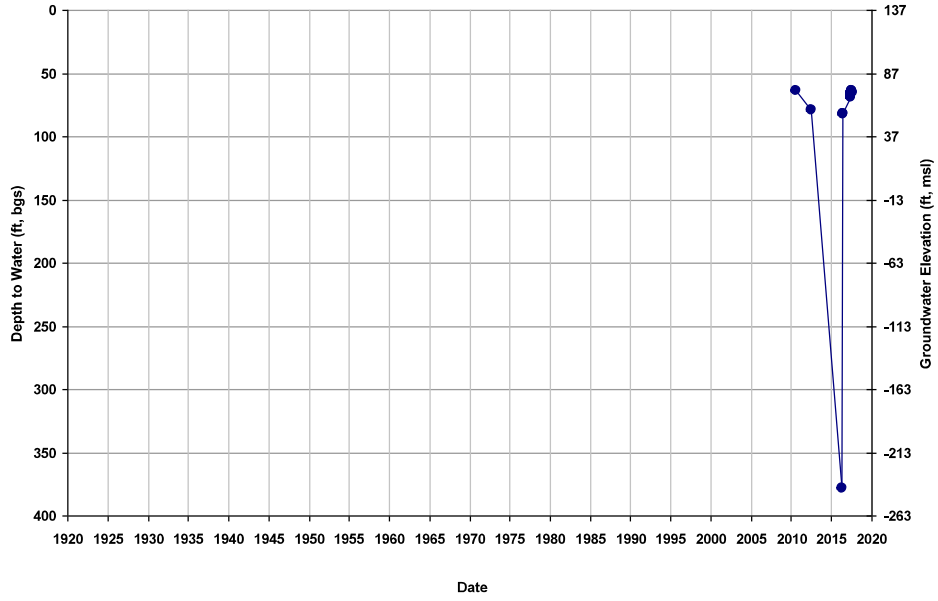
Well ID: TTR-36
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): 221
Perf Top (ft): 130
Perf Bottom (ft): 221



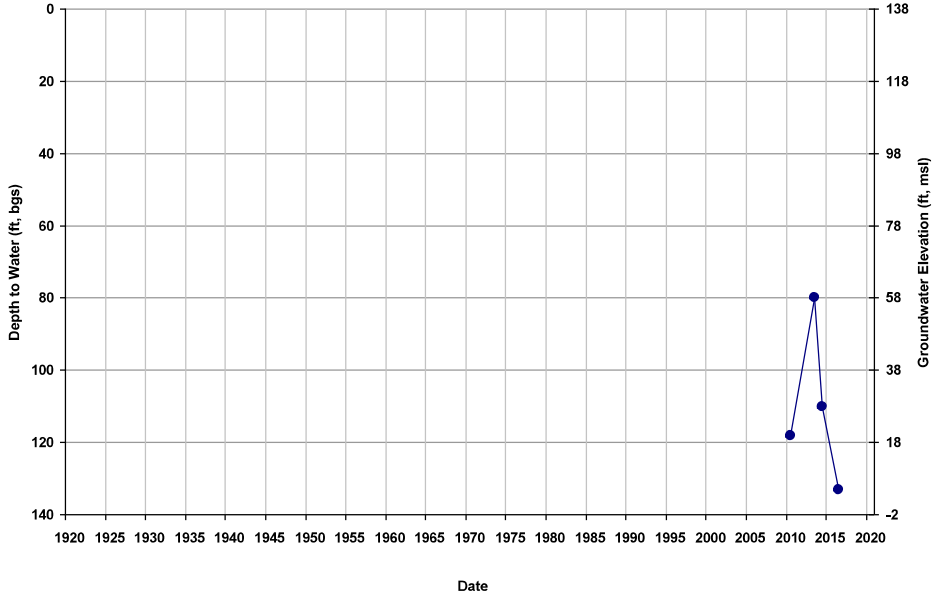
Well ID: TTR-37
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 219
Perf Top (ft): 114
Perf Bottom (ft): 219



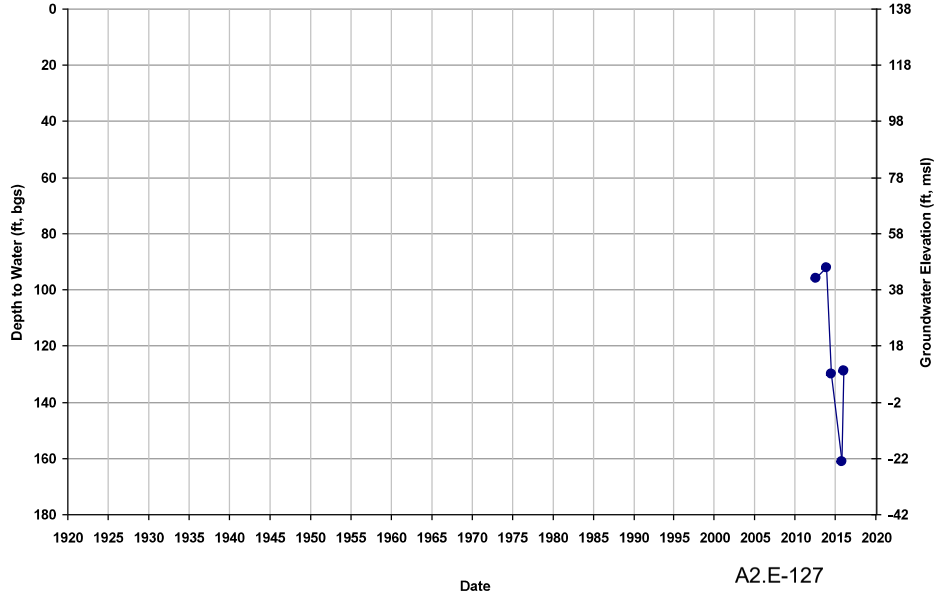
Well ID: TTR-38
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 206
Perf Top (ft): 125
Perf Bottom (ft): 206



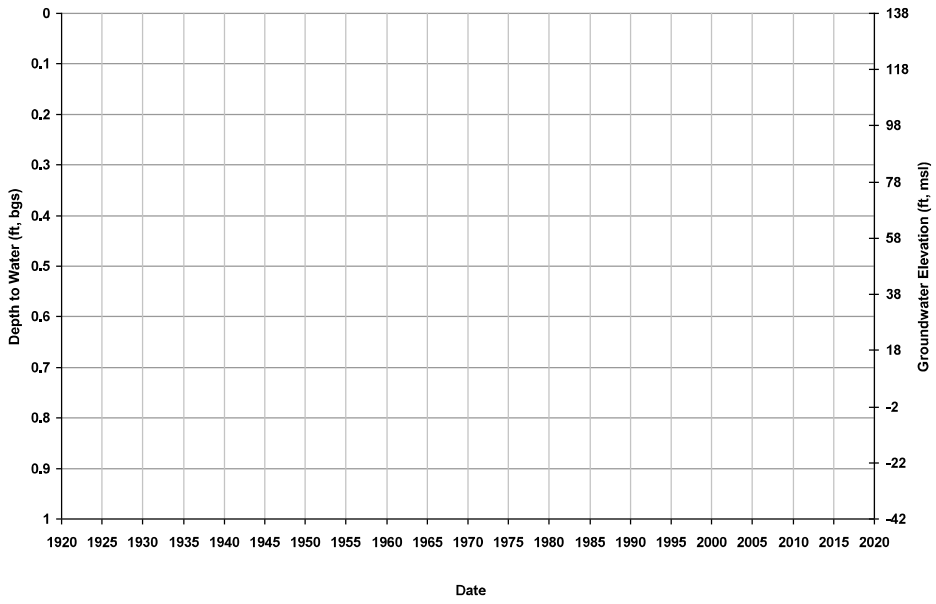
Well ID: TTR-39
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): 211
Perf Top (ft): 132
Perf Bottom (ft): 211



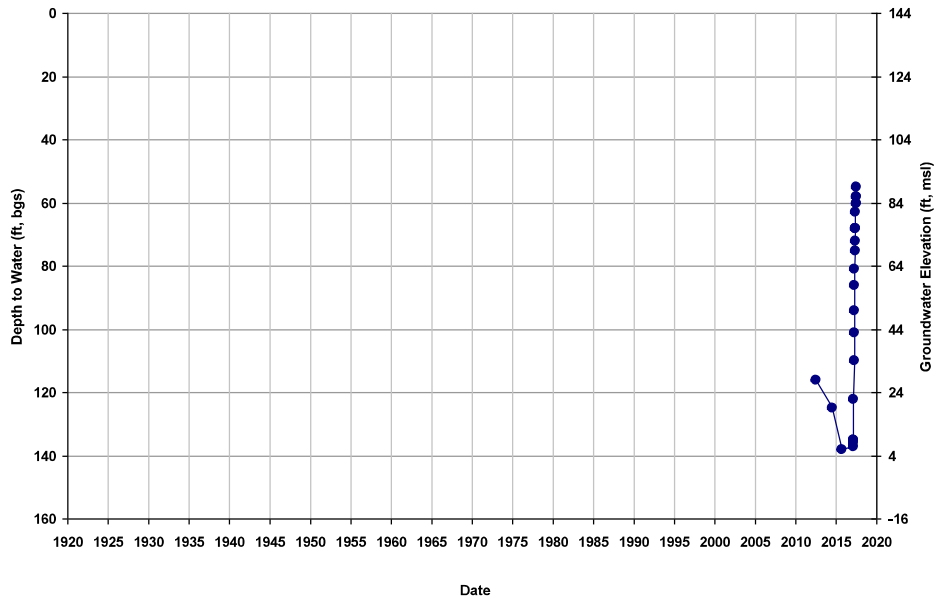
Well ID: TTR-4
Depth Zone: Composite; Outside CC
Subbasin: Chowchilla

GSE (ft, msl):
Total Depth (ft): 284
Perf Top (ft): 160
Perf Bottom (ft): 280



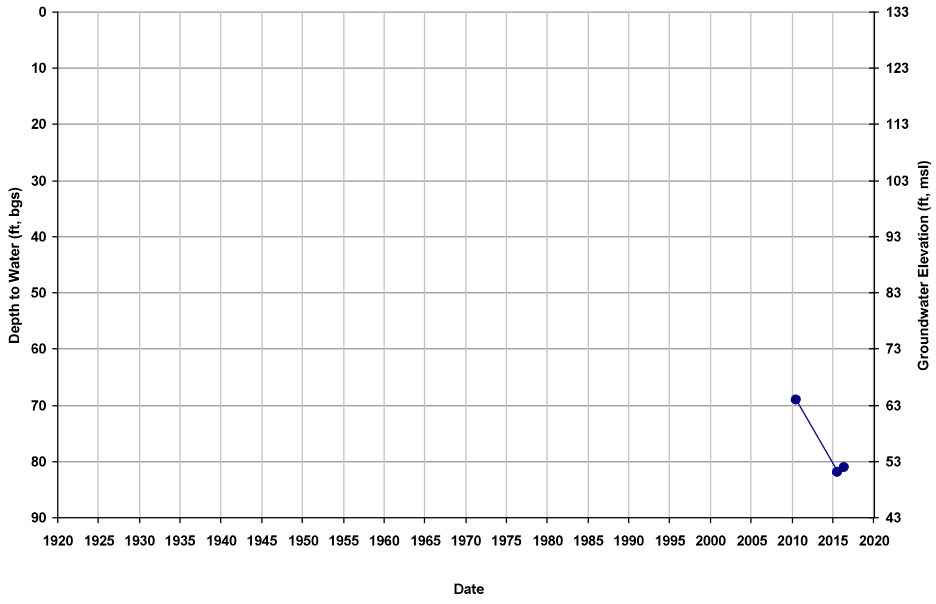
Well ID: TTR-40
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): 228
Perf Top (ft): 175
Perf Bottom (ft): 228



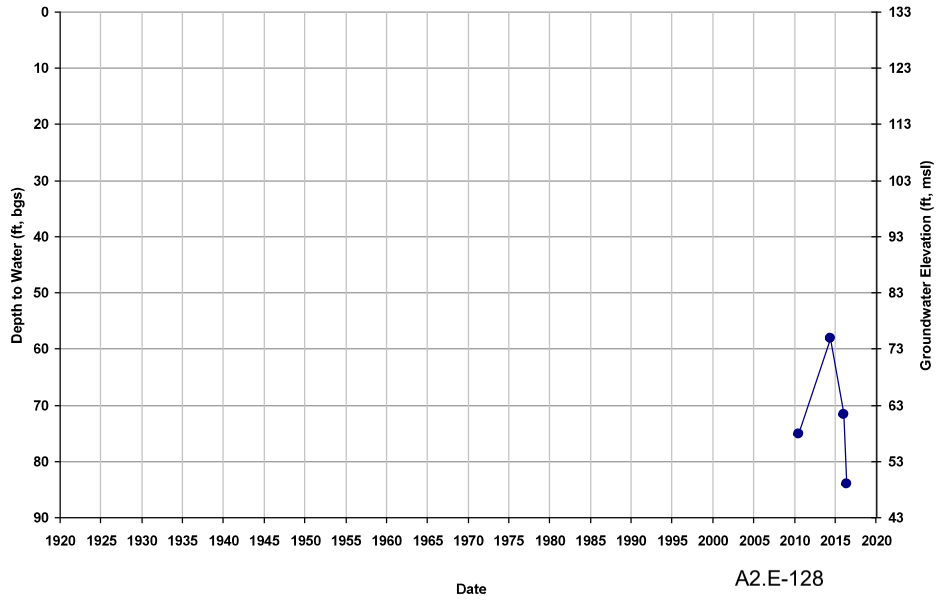
Well ID: TTR-41
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): 212
Perf Top (ft): 153
Perf Bottom (ft): 212



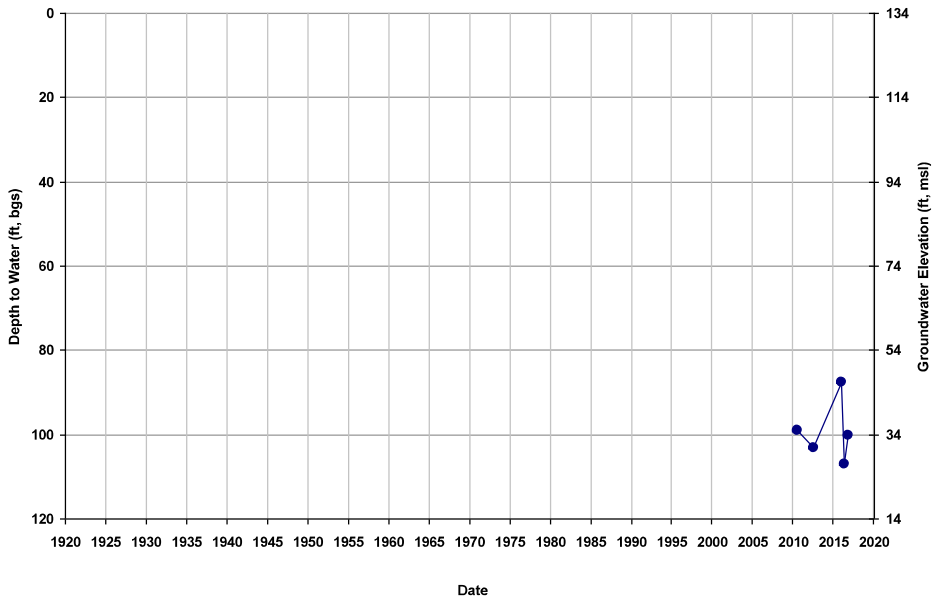
Well ID: TTR-42
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 132
Total Depth (ft): 165
Perf Top (ft): 120
Perf Bottom (ft): 198



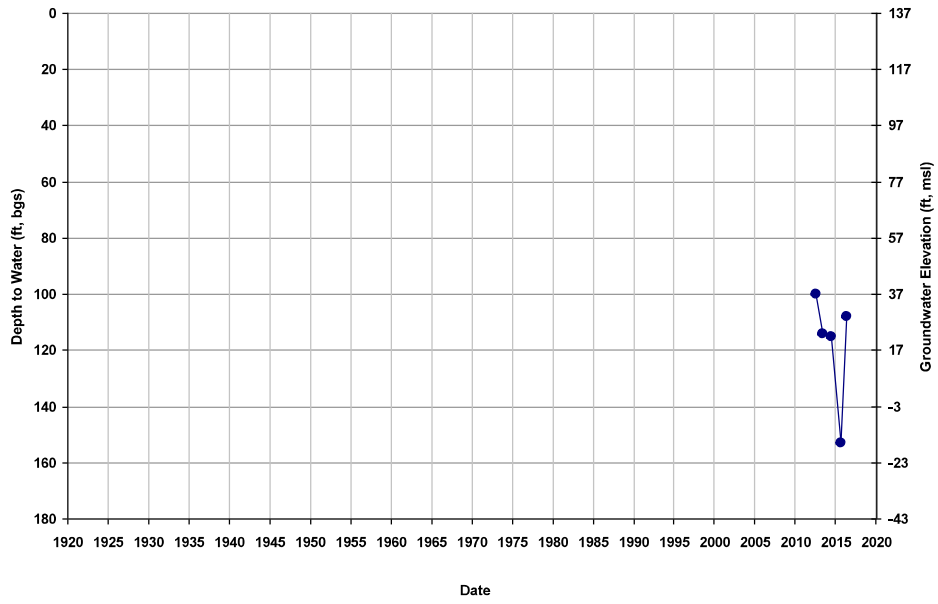
Well ID: TTR-43
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 133
Total Depth (ft): 280
Perf Top (ft): 190
Perf Bottom (ft): 276



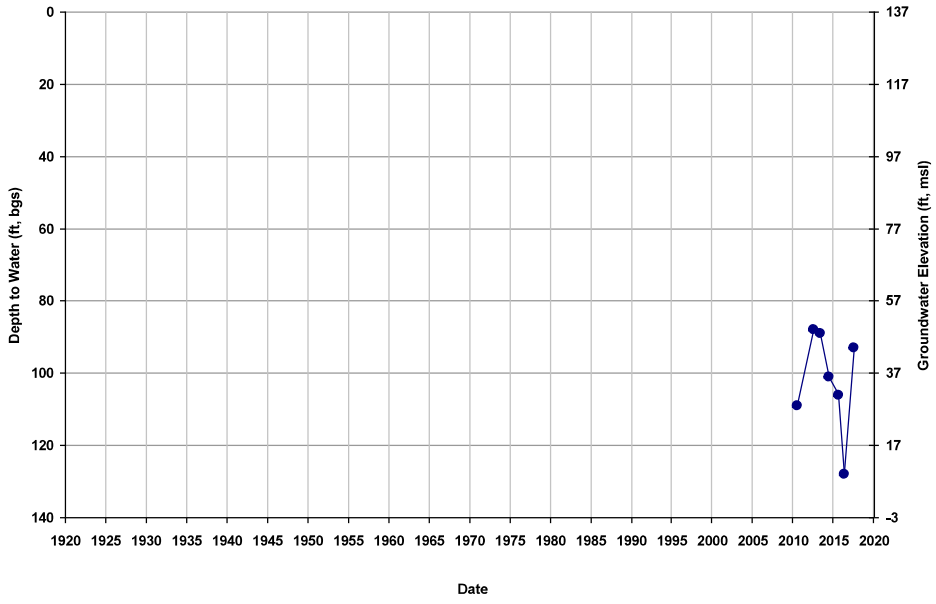
Well ID: TTR-44
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 260
Perf Top (ft): 210
Perf Bottom (ft): 256



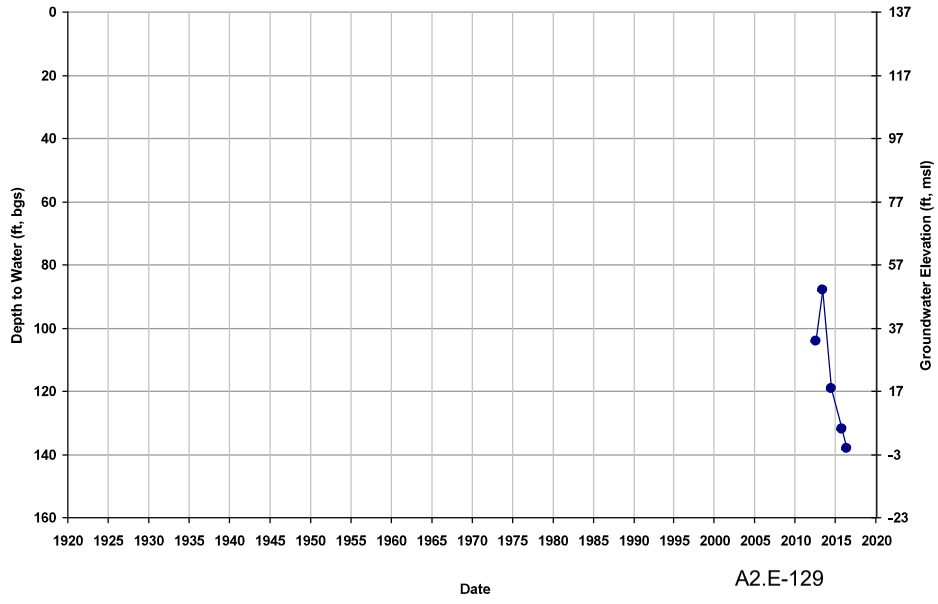
Well ID: TTR-45
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 300
Perf Top (ft): 100
Perf Bottom (ft): 300



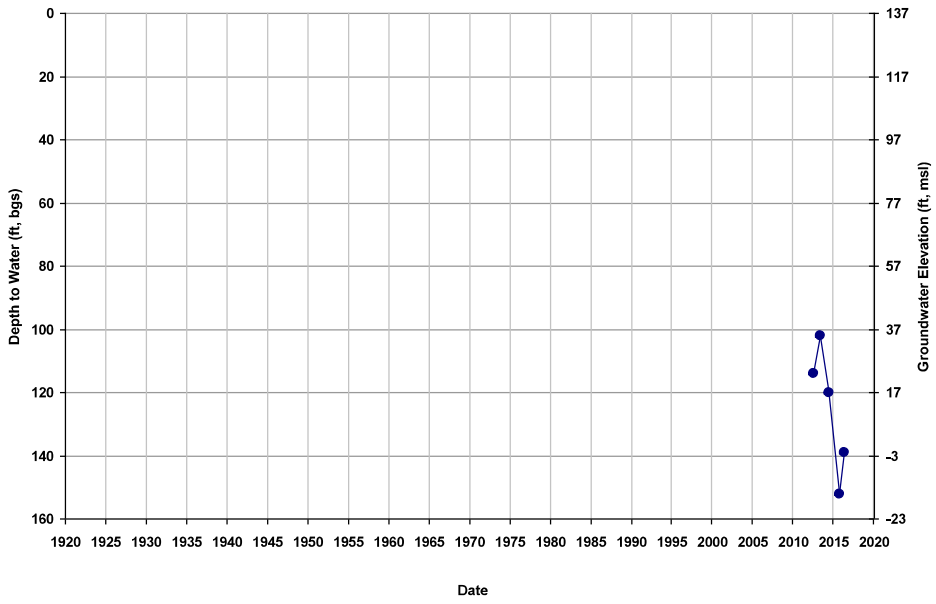
Well ID: TTR-46
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 300
Perf Top (ft): 144
Perf Bottom (ft): 296



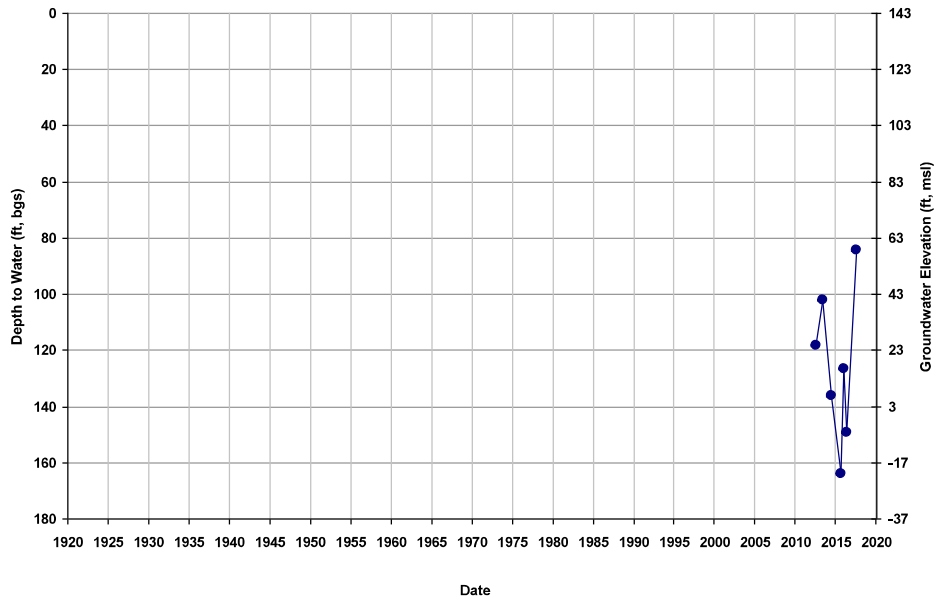
Well ID: TTR-47
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 260
Perf Top (ft): 188
Perf Bottom (ft): 247



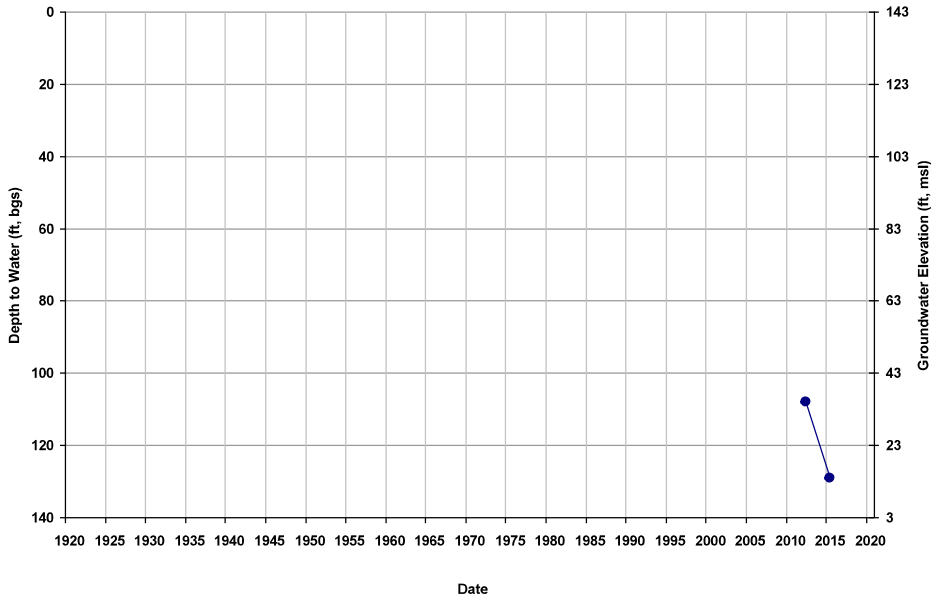
Well ID: TTR-48
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 233
Perf Top (ft): 190
Perf Bottom (ft): 233



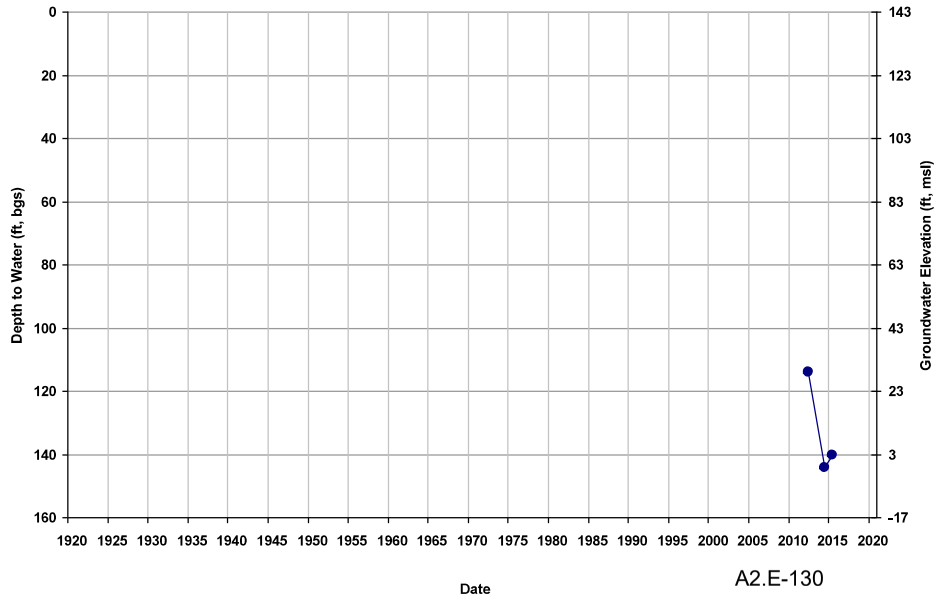
Well ID: TTR-49
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 327
Perf Top (ft): 199
Perf Bottom (ft): 327



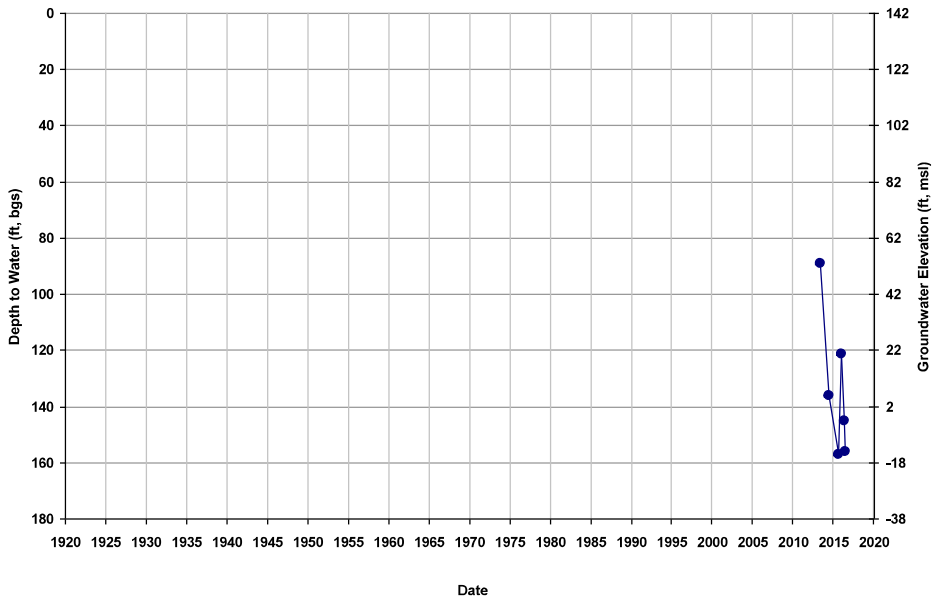
Well ID: TTR-50
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 408
Perf Top (ft): 192
Perf Bottom (ft): 408



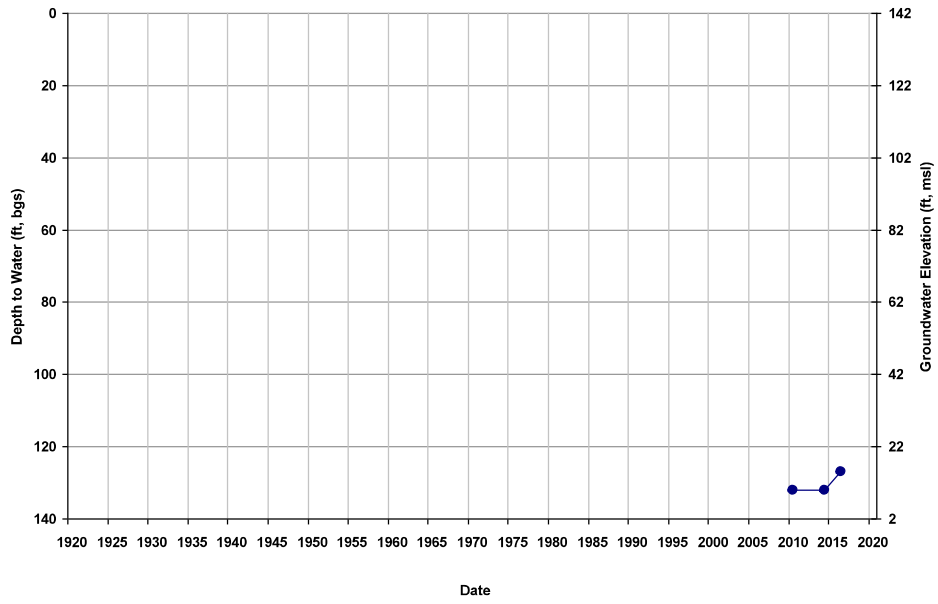
Well ID: TTR-51
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 141
Total Depth (ft): 203
Perf Top (ft): 143
Perf Bottom (ft): 203



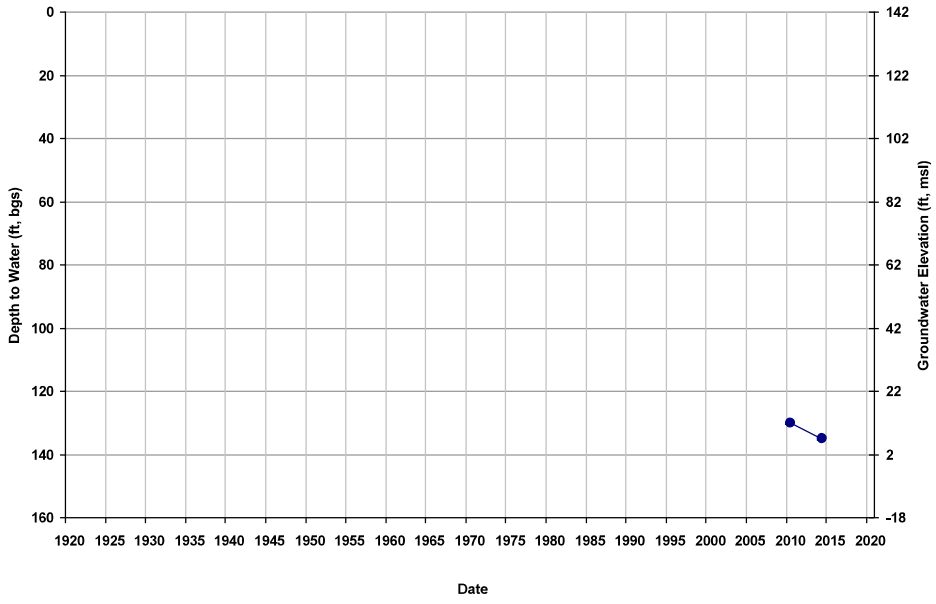
Well ID: TTR-52
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 165
Perf Top (ft): 93
Perf Bottom (ft): 172



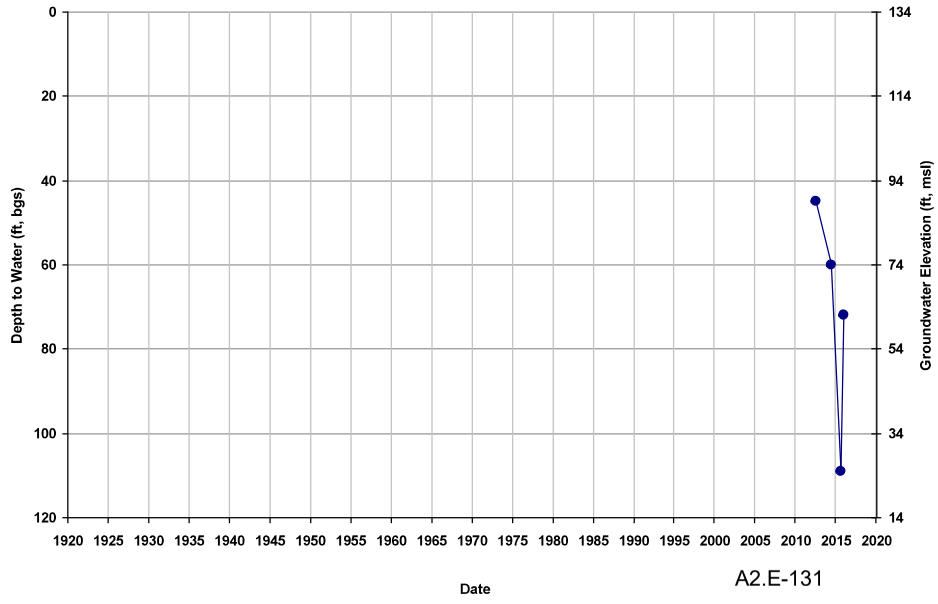
Well ID: TTR-53
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 217
Perf Top (ft): 118
Perf Bottom (ft): 217



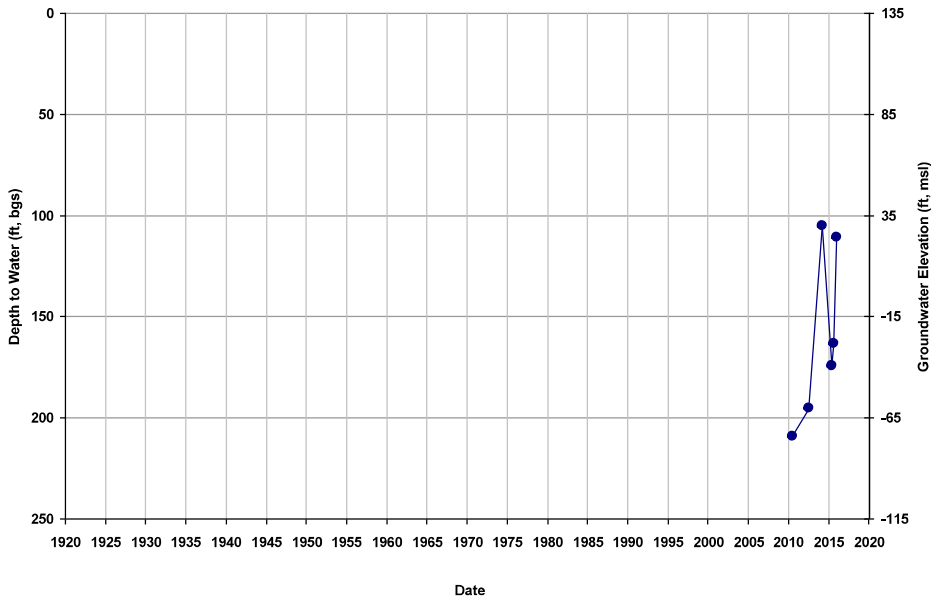
Well ID: TTR-54
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): NA
Perf Top (ft): 216
Perf Bottom (ft): NA



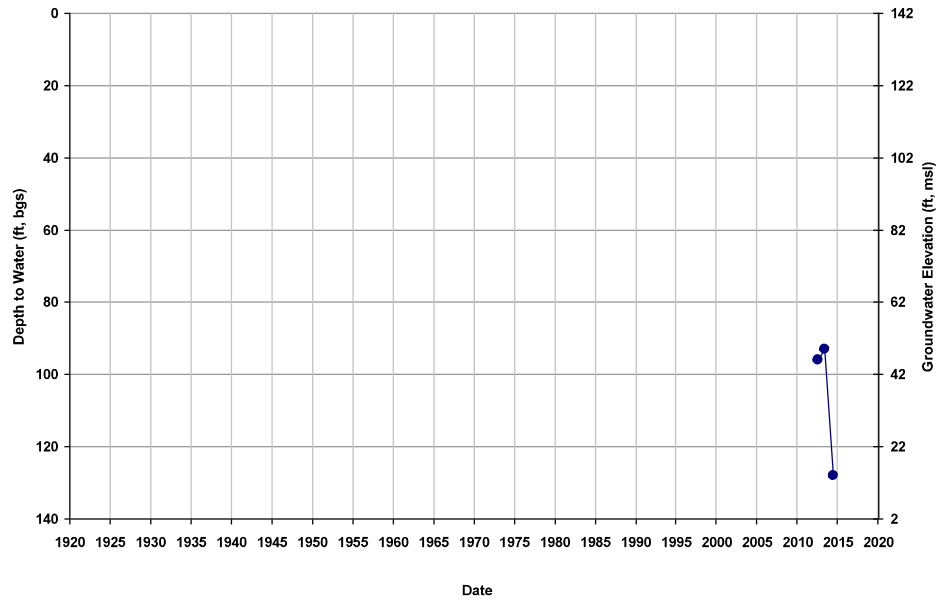
Well ID: TTR-55
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 135
Total Depth (ft): 850
Perf Top (ft): 325
Perf Bottom (ft): 580



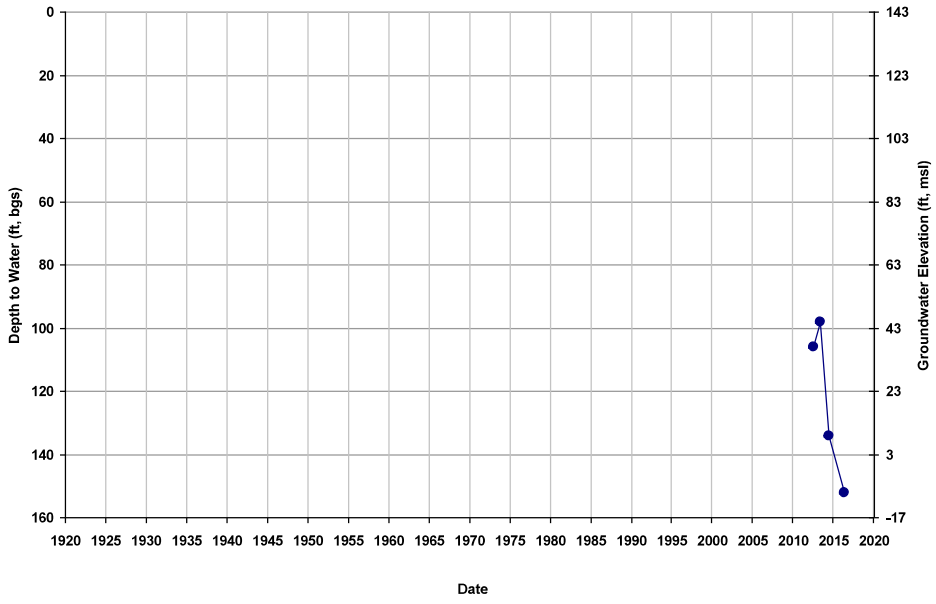
Well ID: TTR-56
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 490
Perf Top (ft): 203
Perf Bottom (ft): 490



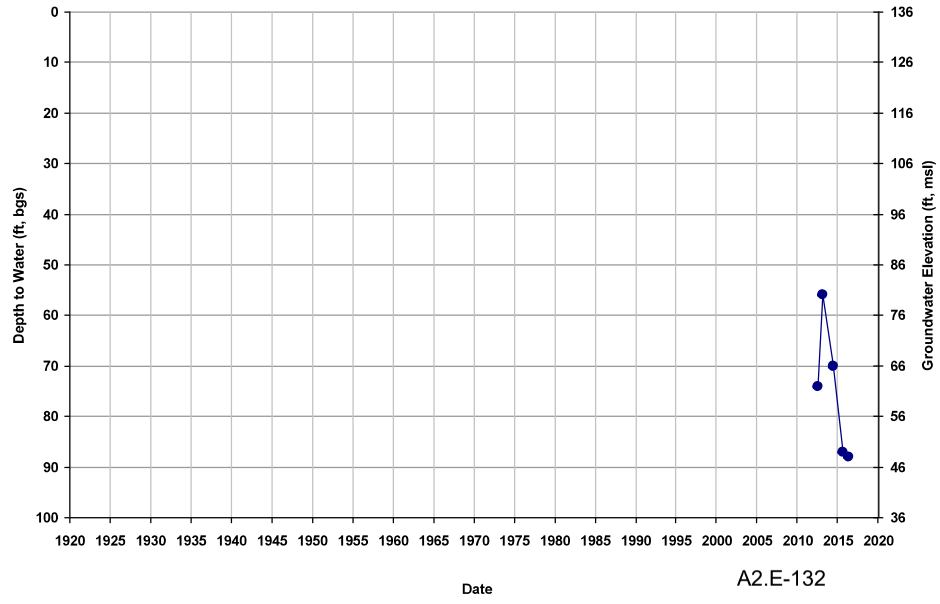
Well ID: TTR-57
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 272
Perf Top (ft): 175
Perf Bottom (ft): 272



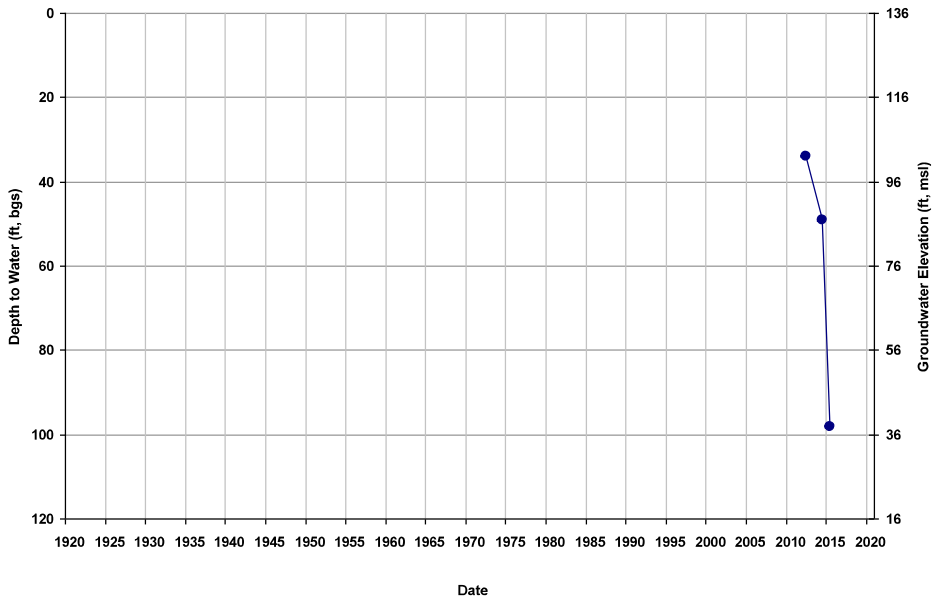
Well ID: TTR-58
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 136
Total Depth (ft): 212
Perf Top (ft): 138
Perf Bottom (ft): 220



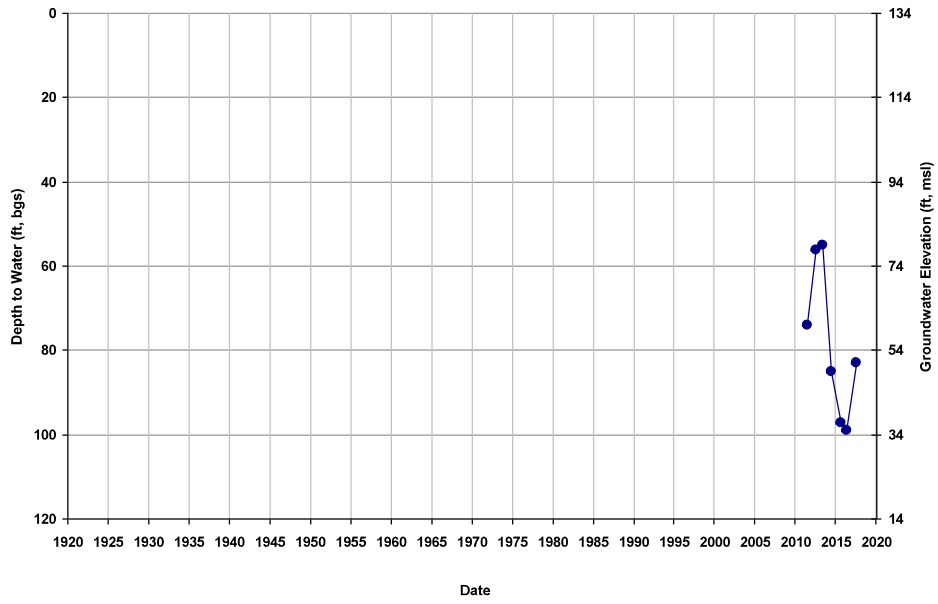
Well ID: TTR-59
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 135
Total Depth (ft): 143
Perf Top (ft): 72
Perf Bottom (ft): 143



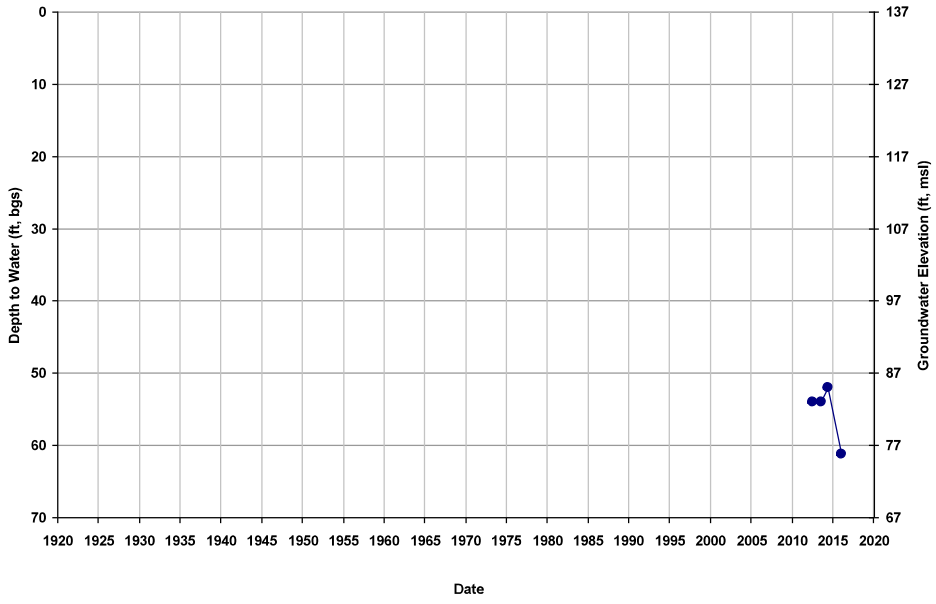
Well ID: TTR-6
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 134
Total Depth (ft): 196
Perf Top (ft): 158
Perf Bottom (ft): 192



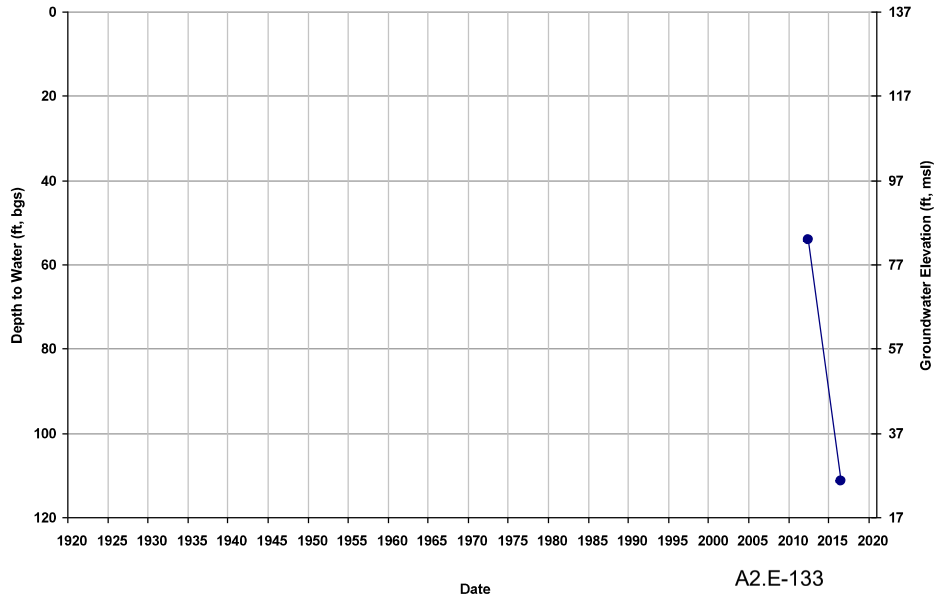
Well ID: TTR-60
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 202
Perf Top (ft): 105
Perf Bottom (ft): 202



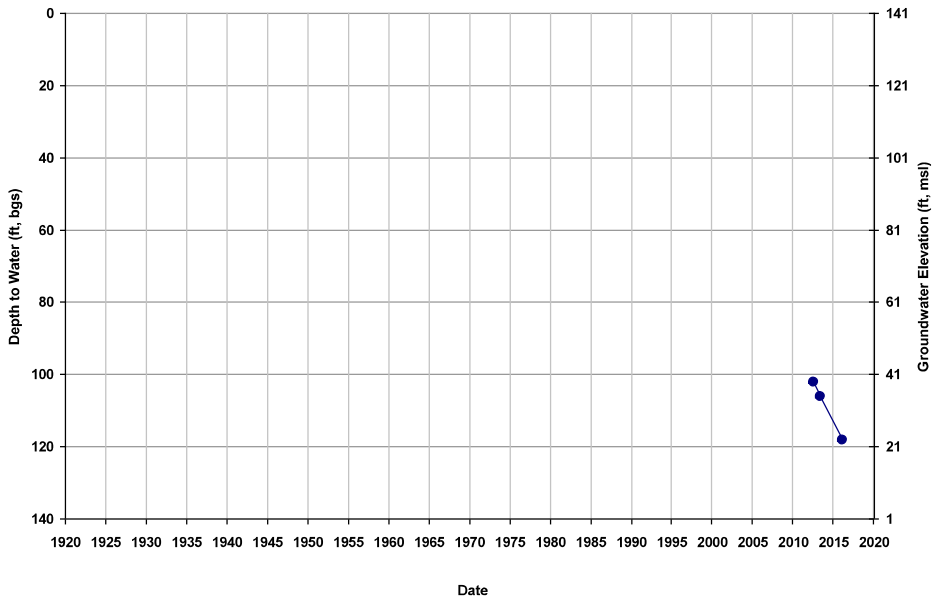
Well ID: TTR-61
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 137
Total Depth (ft): 840
Perf Top (ft): 320
Perf Bottom (ft): 820



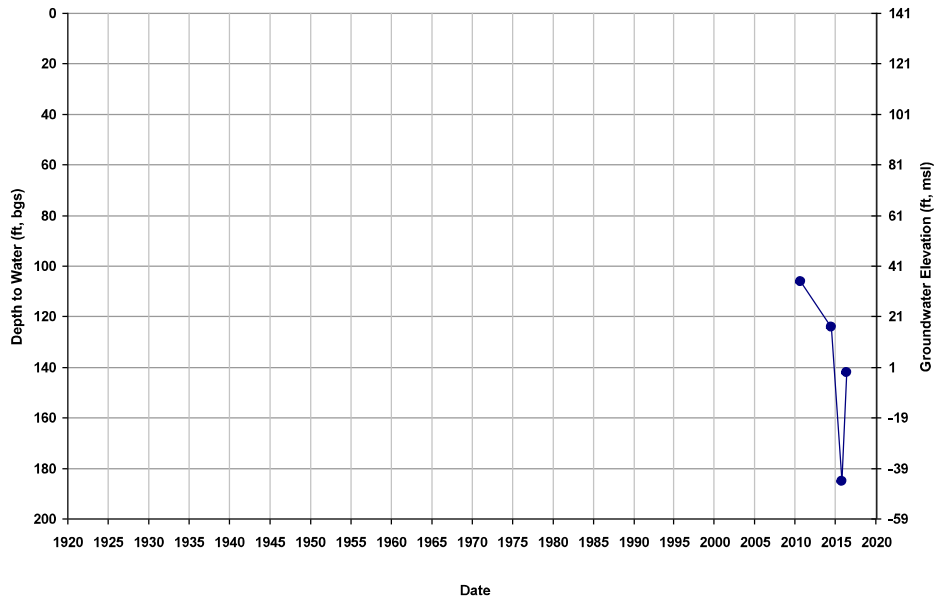
Well ID: TTR-62
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 141
Total Depth (ft): 284
Perf Top (ft): 168
Perf Bottom (ft): 235



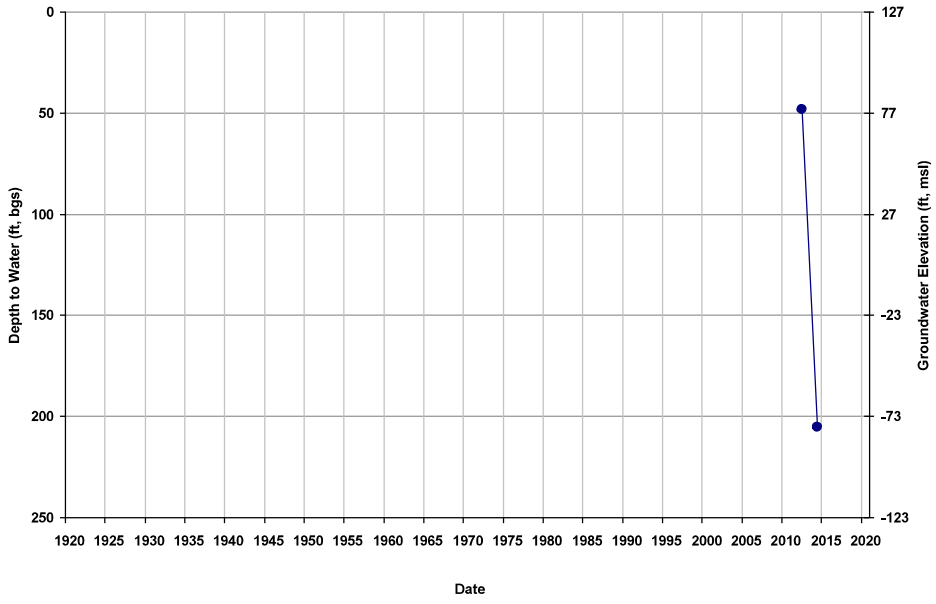
Well ID: TTR-63
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 140
Total Depth (ft): 286
Perf Top (ft): 192
Perf Bottom (ft): 286



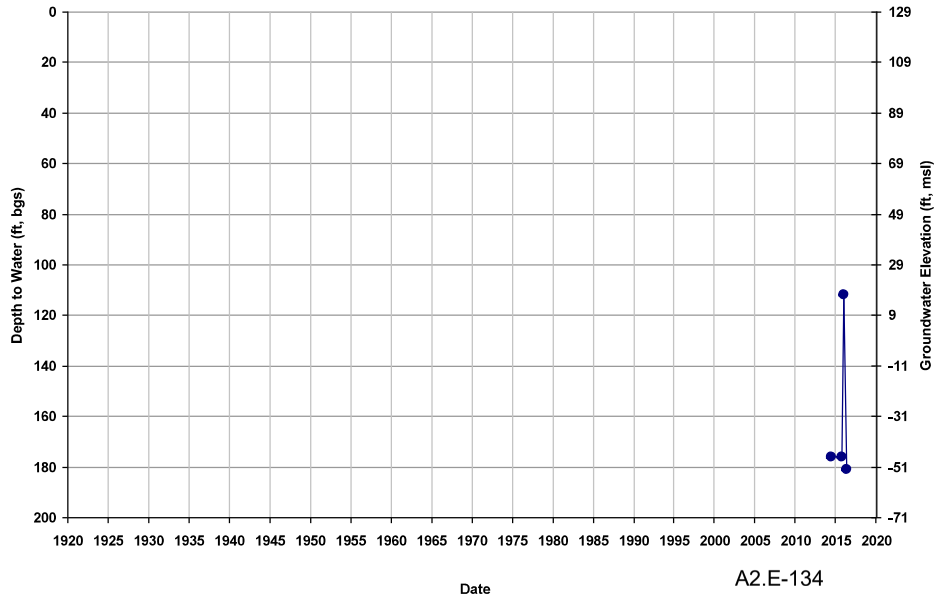
Well ID: TTR-64
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 127
Total Depth (ft): 870
Perf Top (ft): 295
Perf Bottom (ft): 850



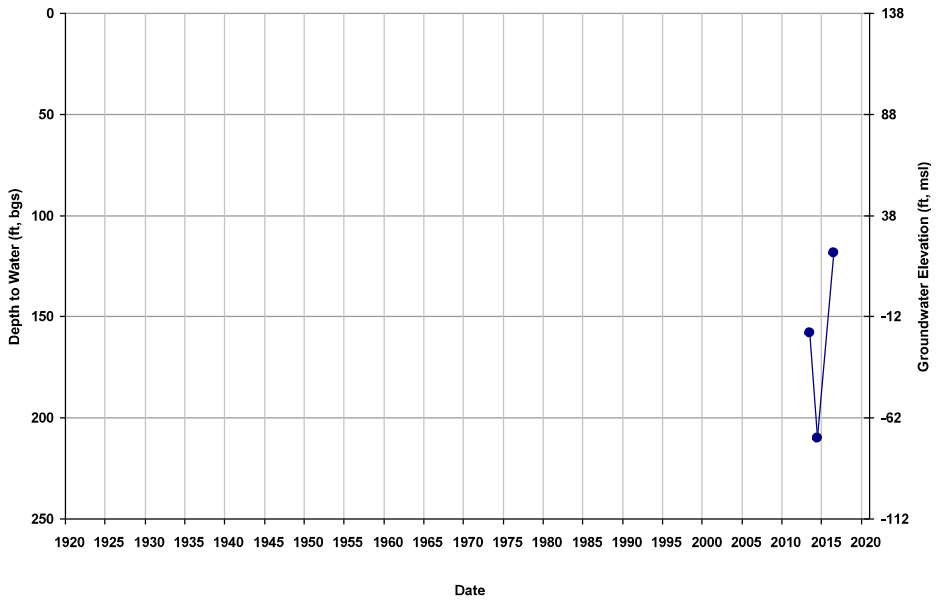
Well ID: TTR-66
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 128
Total Depth (ft): 870
Perf Top (ft): 300
Perf Bottom (ft): 850



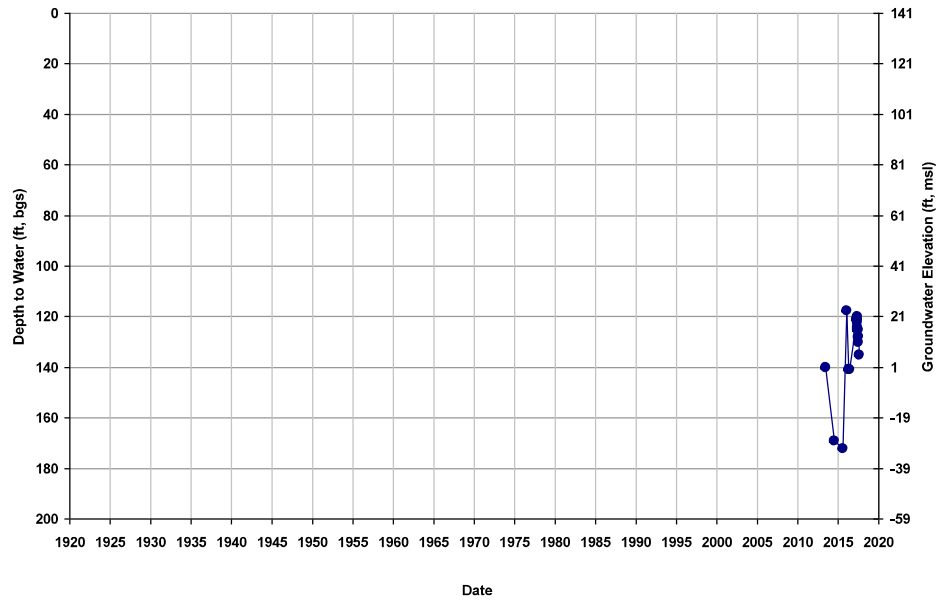
Well ID: TTR-67
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 138
Total Depth (ft): 850
Perf Top (ft): 325
Perf Bottom (ft): 830



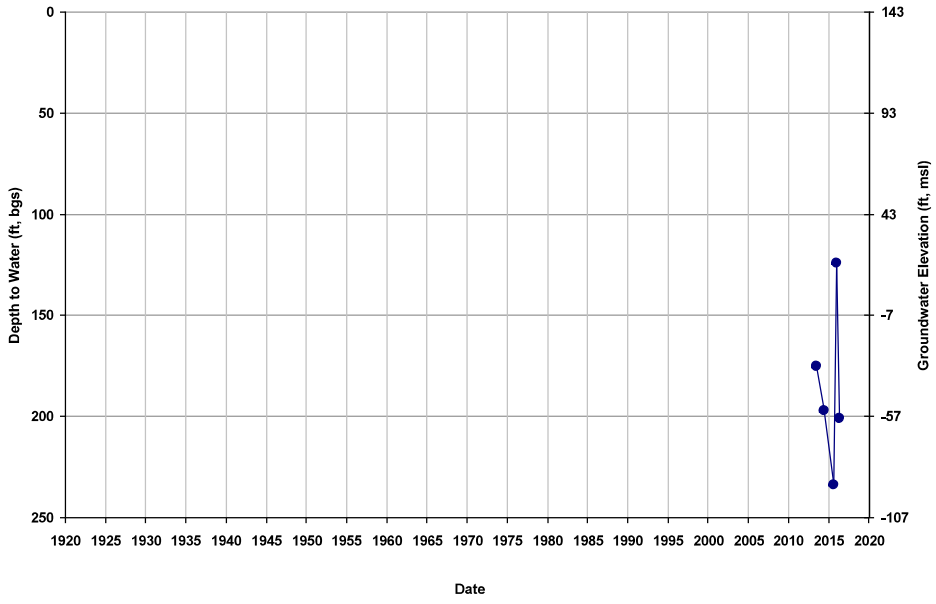
Well ID: TTR-68
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 140
Total Depth (ft): 840
Perf Top (ft): 190
Perf Bottom (ft): 810



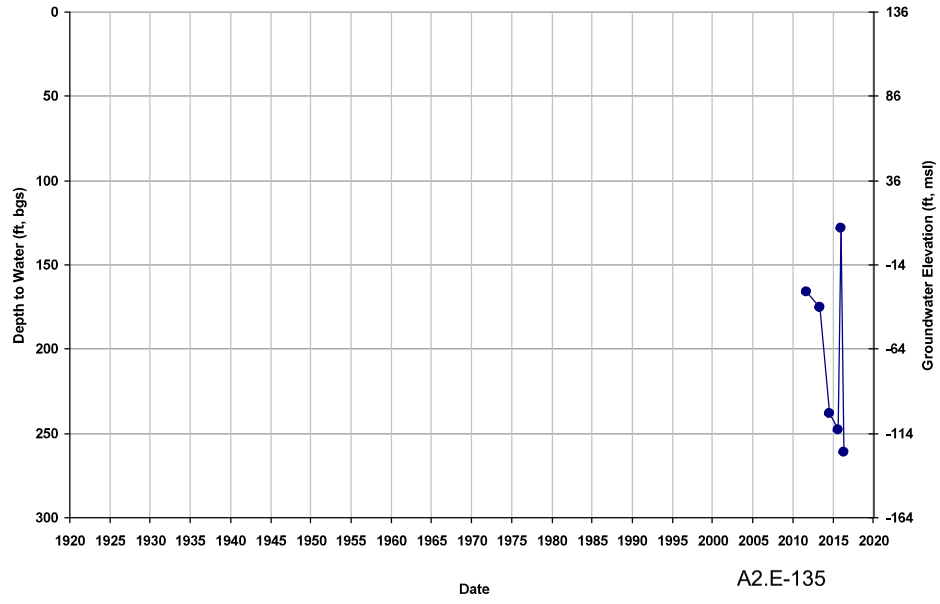
Well ID: TTR-69
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 750
Perf Top (ft): 190
Perf Bottom (ft): 730



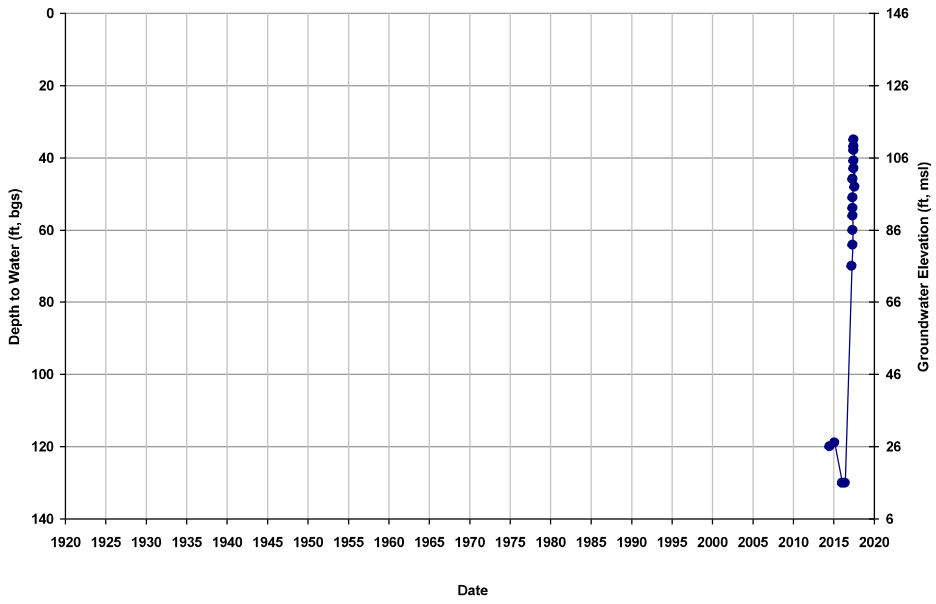
Well ID: TTR-7
Depth Zone: Lower; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 136
Total Depth (ft): 795
Perf Top (ft): 290
Perf Bottom (ft): 775



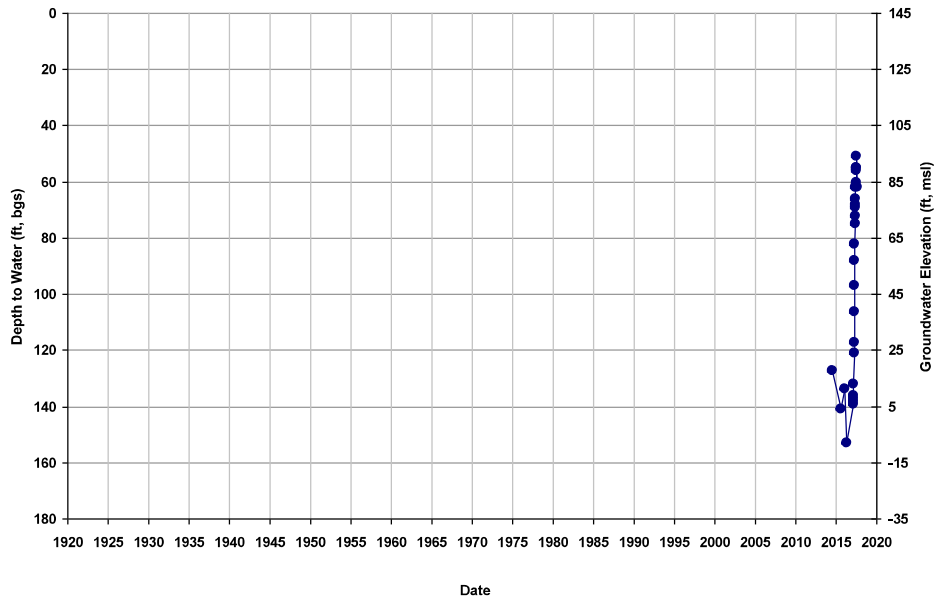
Well ID: TTR-70
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 145
Total Depth (ft): 260
Perf Top (ft): 90
Perf Bottom (ft): 220



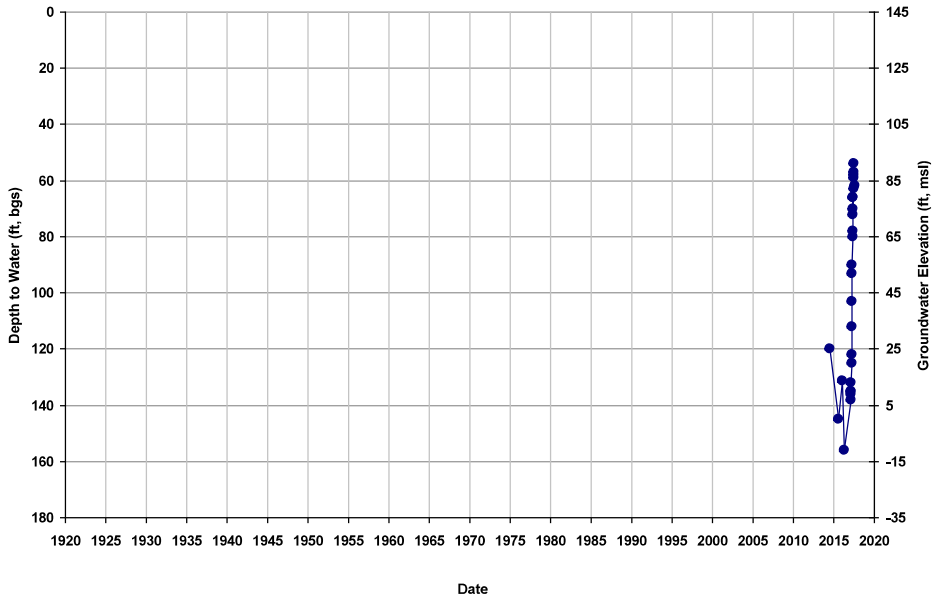
Well ID: TTR-71
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 144
Total Depth (ft): 280
Perf Top (ft): 150
Perf Bottom (ft): 240



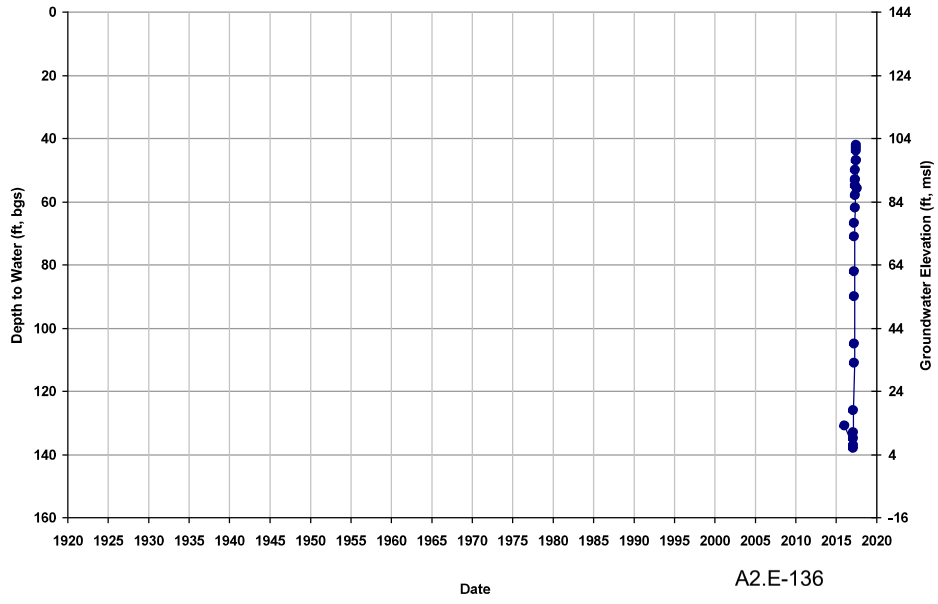
Well ID: TTR-72
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 145
Total Depth (ft): 280
Perf Top (ft): 150
Perf Bottom (ft): 240



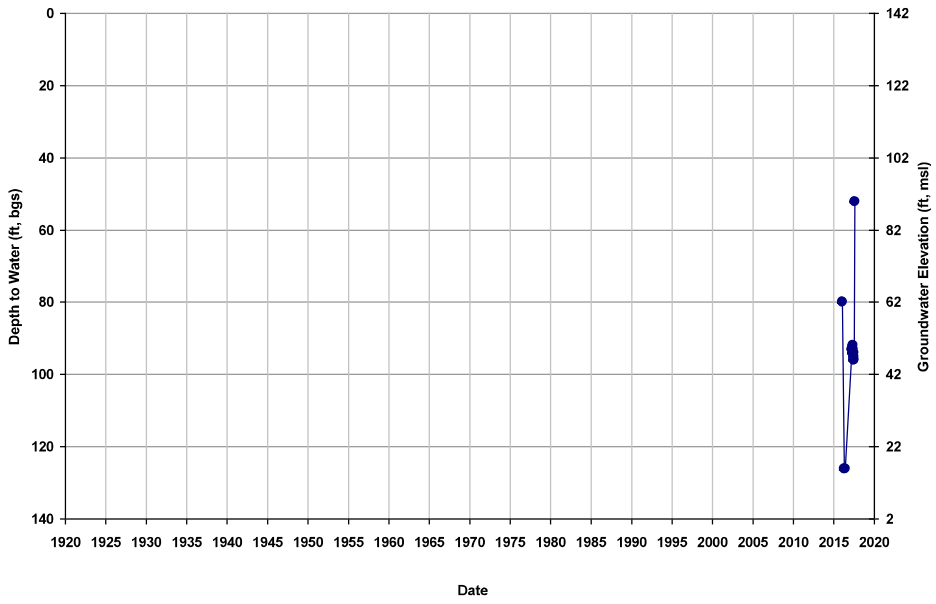
Well ID: TTR-73
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 280
Perf Top (ft): 150
Perf Bottom (ft): 240



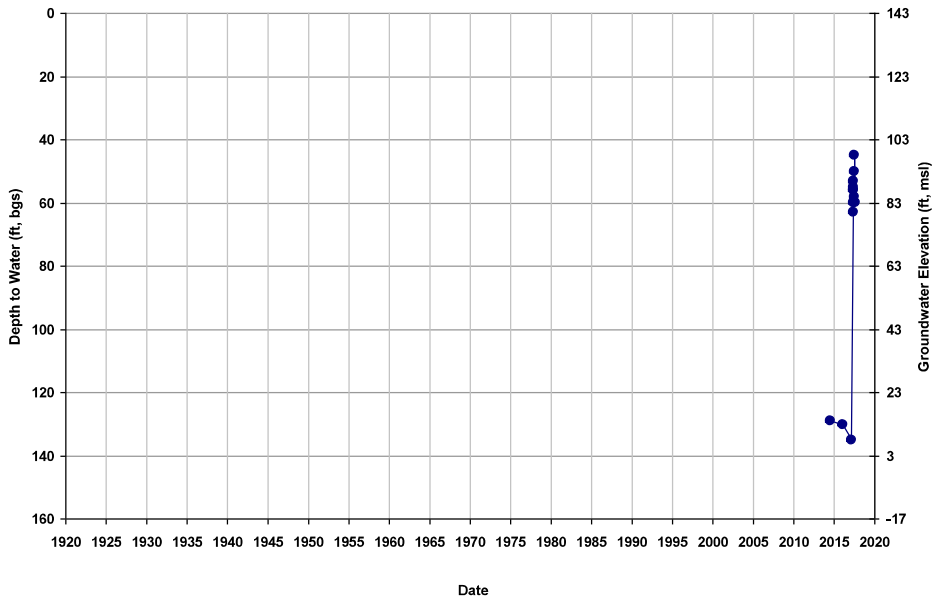
Well ID: TTR-74
Depth Zone: Composite; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 142
Total Depth (ft): 920
Perf Top (ft): NA
Perf Bottom (ft): NA



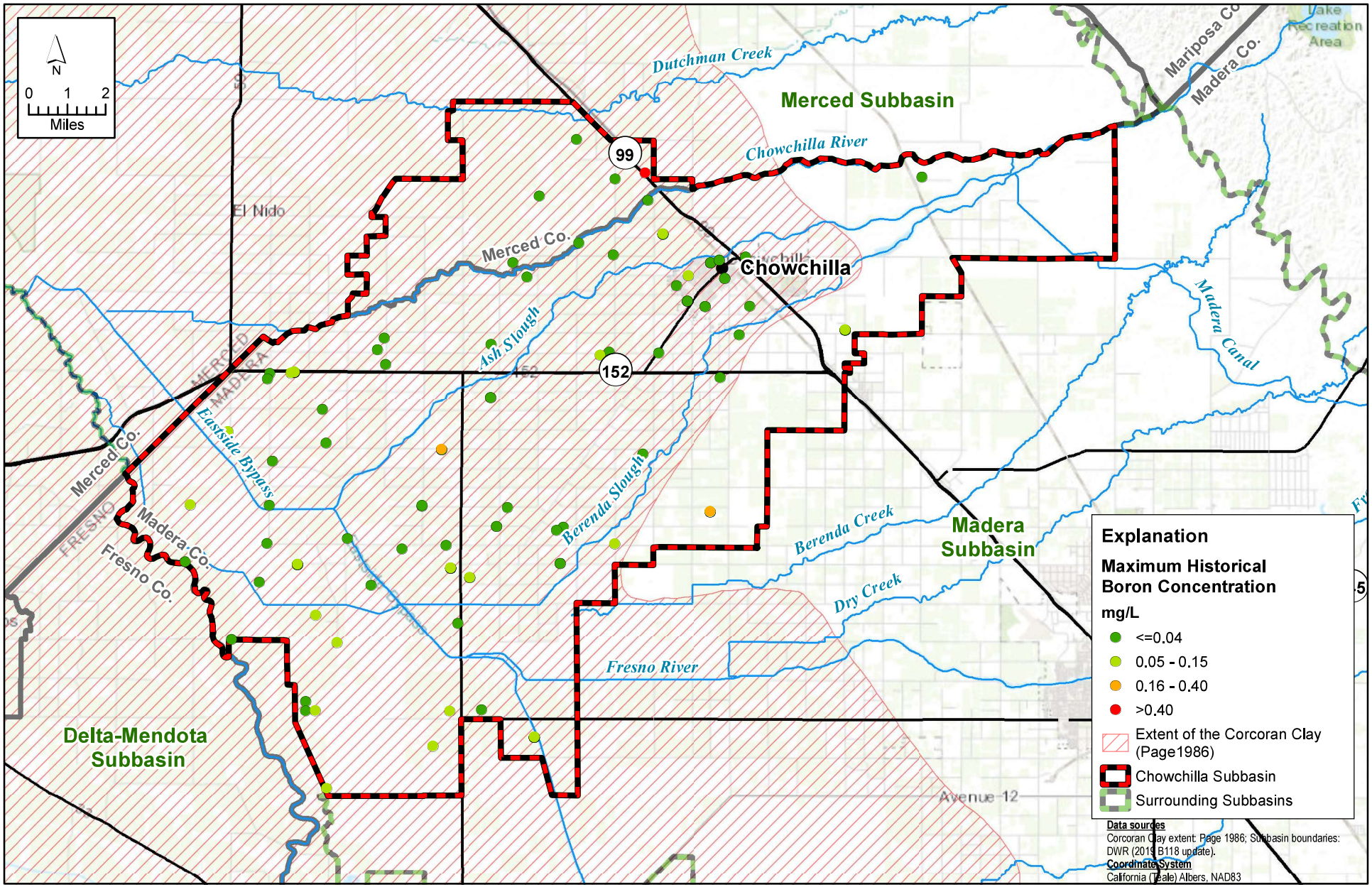
Well ID: TTR-75
Depth Zone: Upper; Within CC
Subbasin: Chowchilla

GSE (ft, msl): 143
Total Depth (ft): 280
Perf Top (ft): 150
Perf Bottom (ft): 240



Groundwater Quality

Maps



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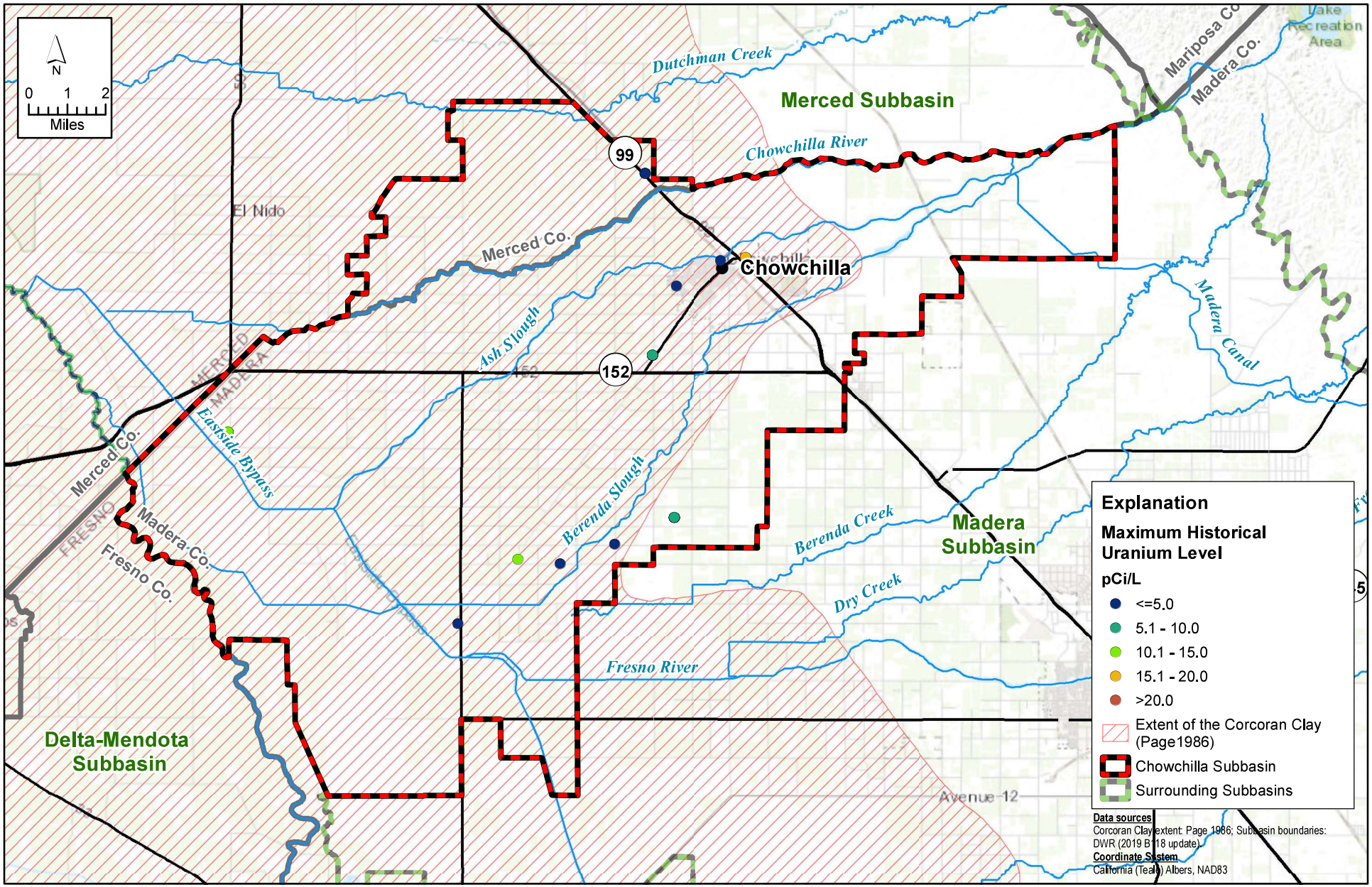
APPENDIX 2.E

Groundwater Quality Map: Boron Concentrations in All Wells



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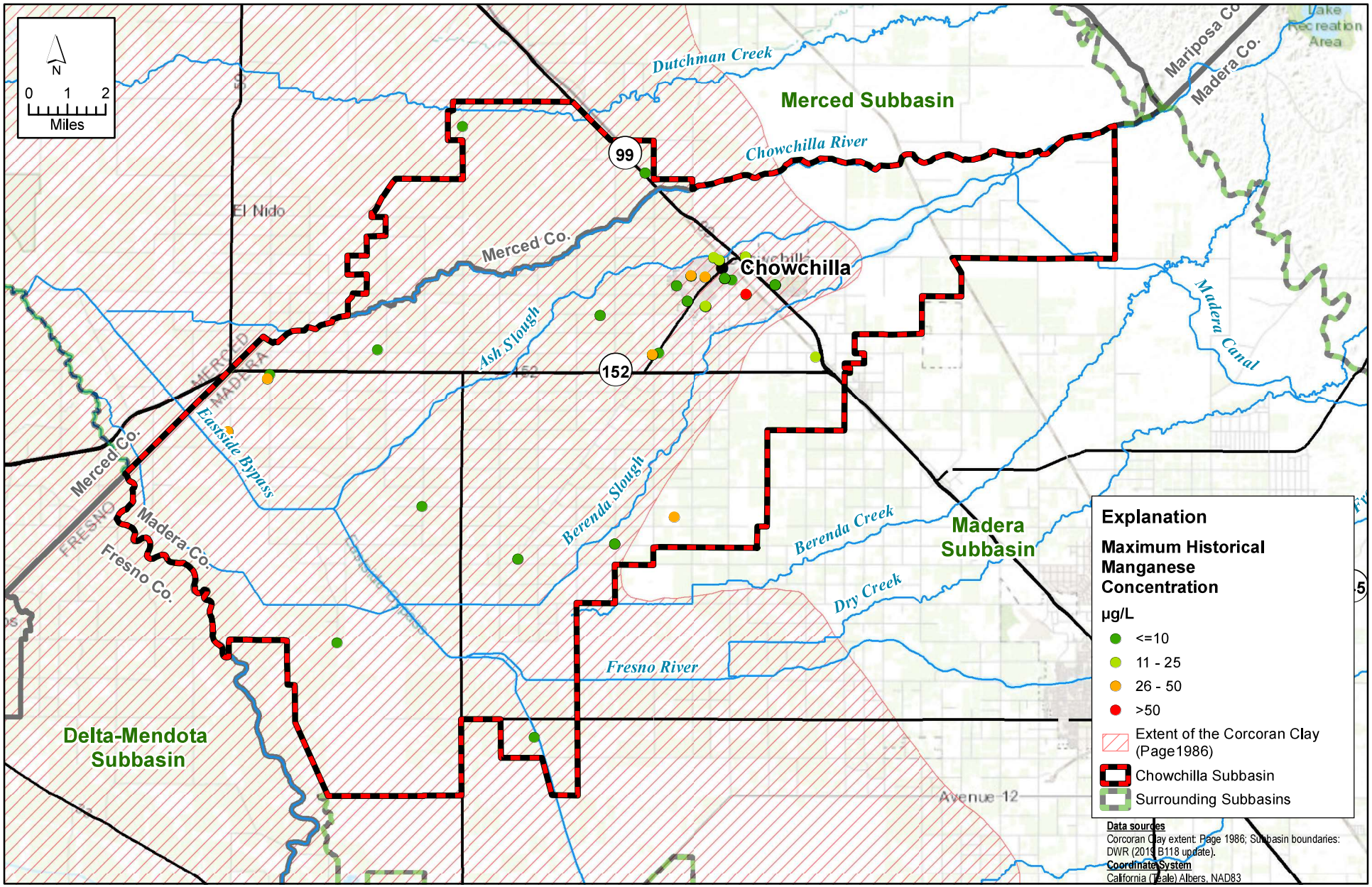
APPENDIX 2.E
Groundwater Quality Map: Uranium Levels in All Wells



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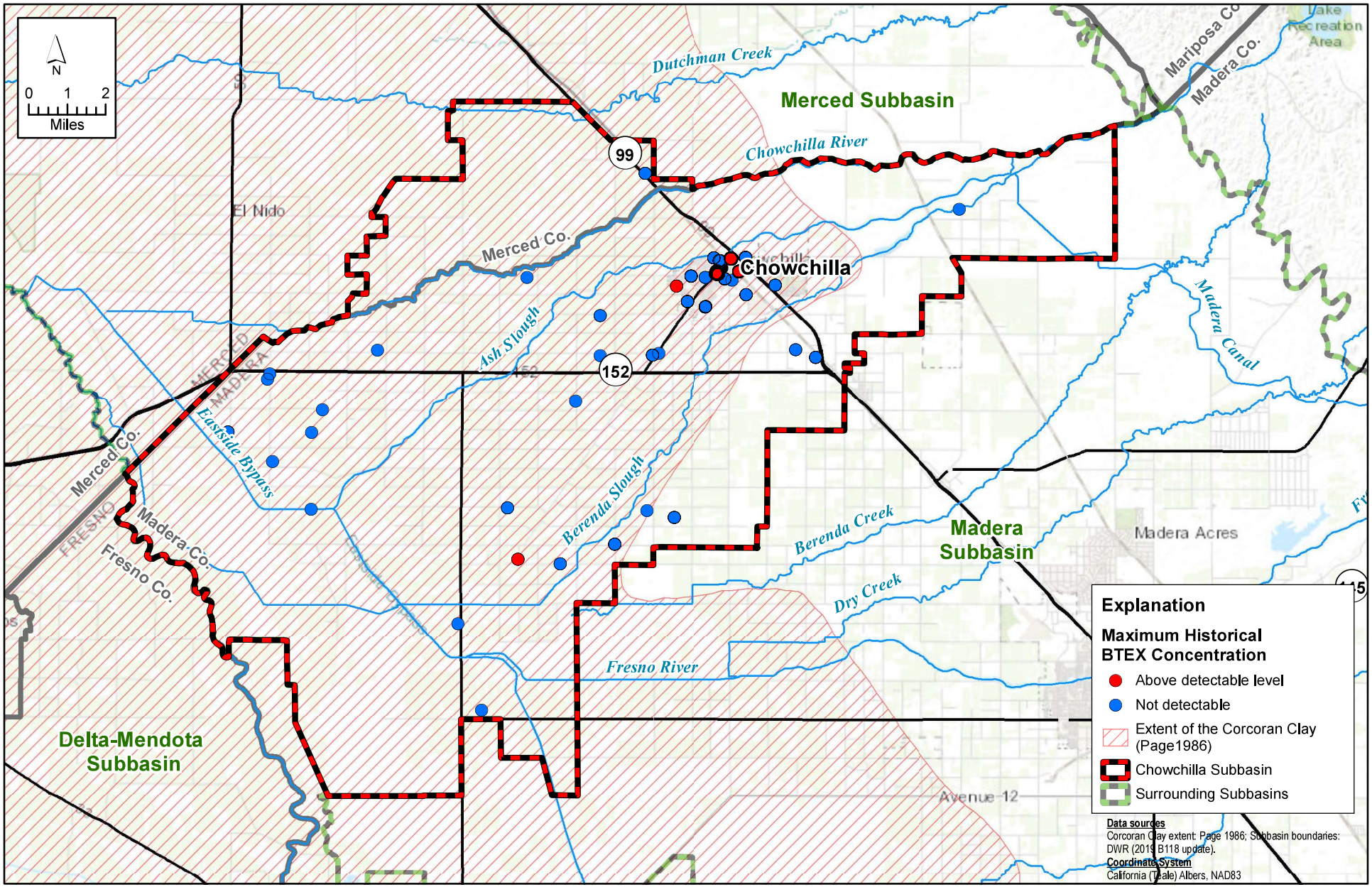
APPENDIX 2.E

Groundwater Quality Map: Manganese Concentrations in All Wells



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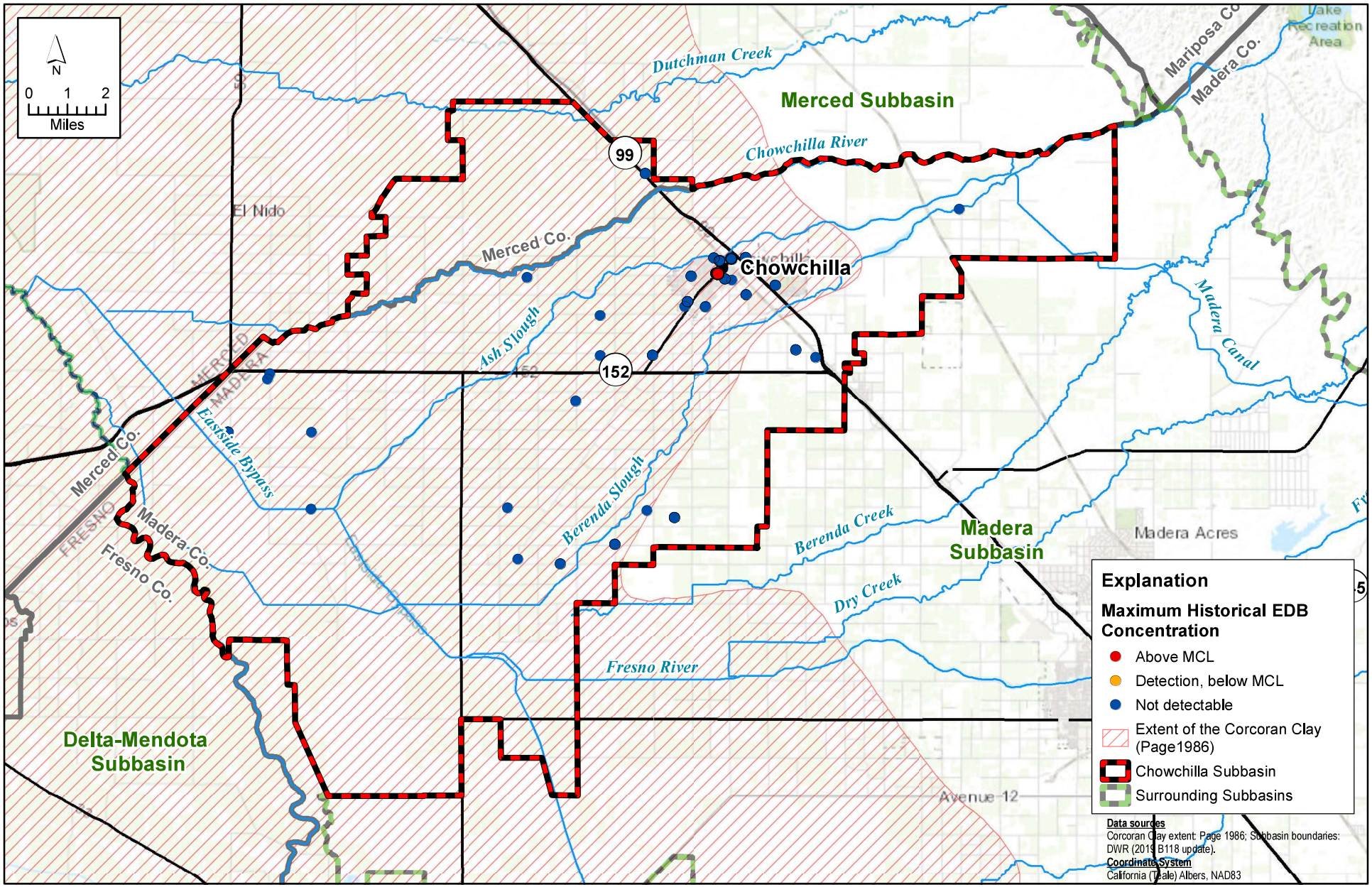
APPENDIX 2.E
Map of Groundwater Quality: BTEX (Benzene, Toluene, Ethylbenze, Xylene) in All Wells



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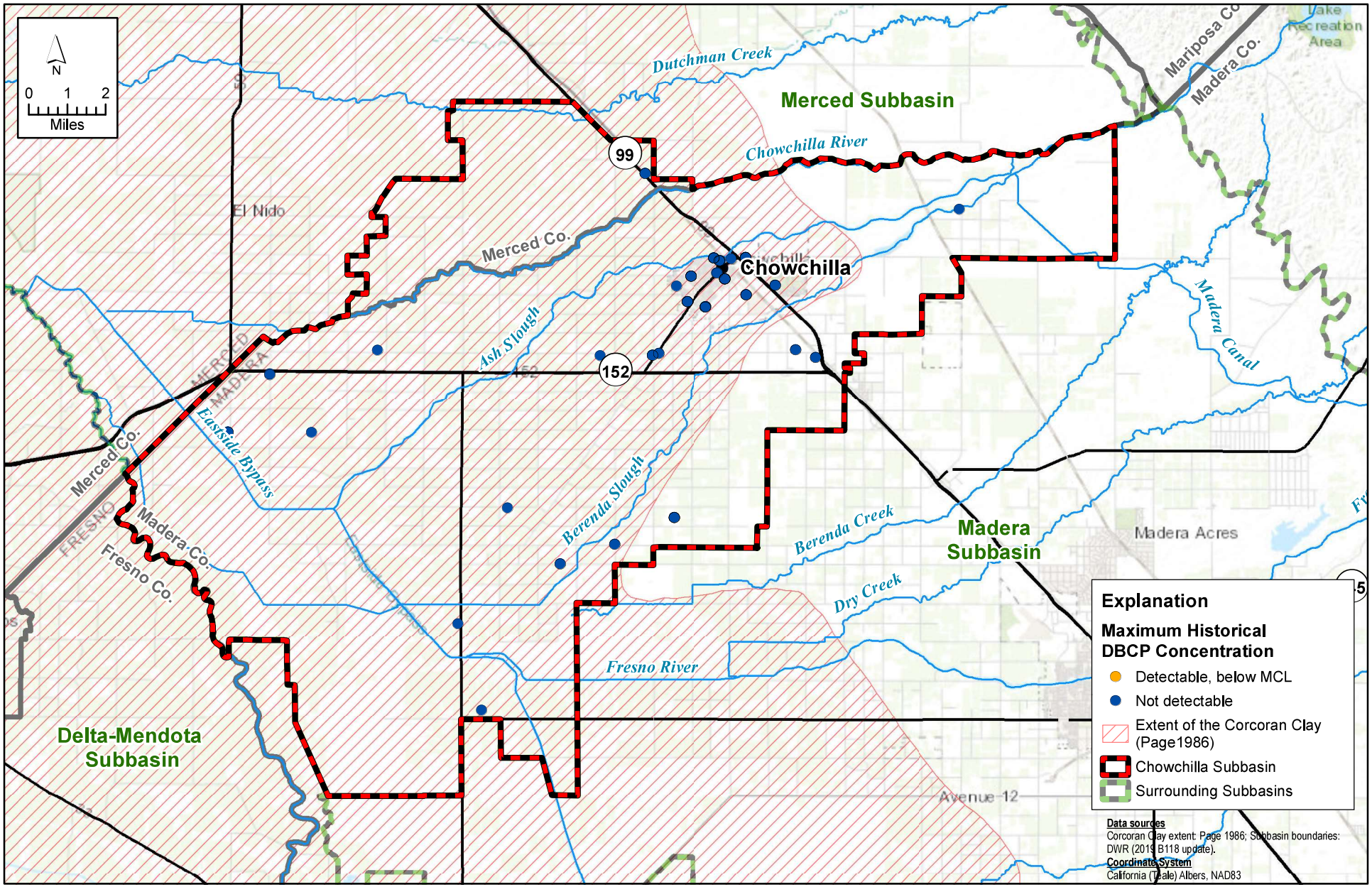
APPENDIX 2.E
Groundwater Quality Map: Ethylene Dibromide Concentrations in All Wells



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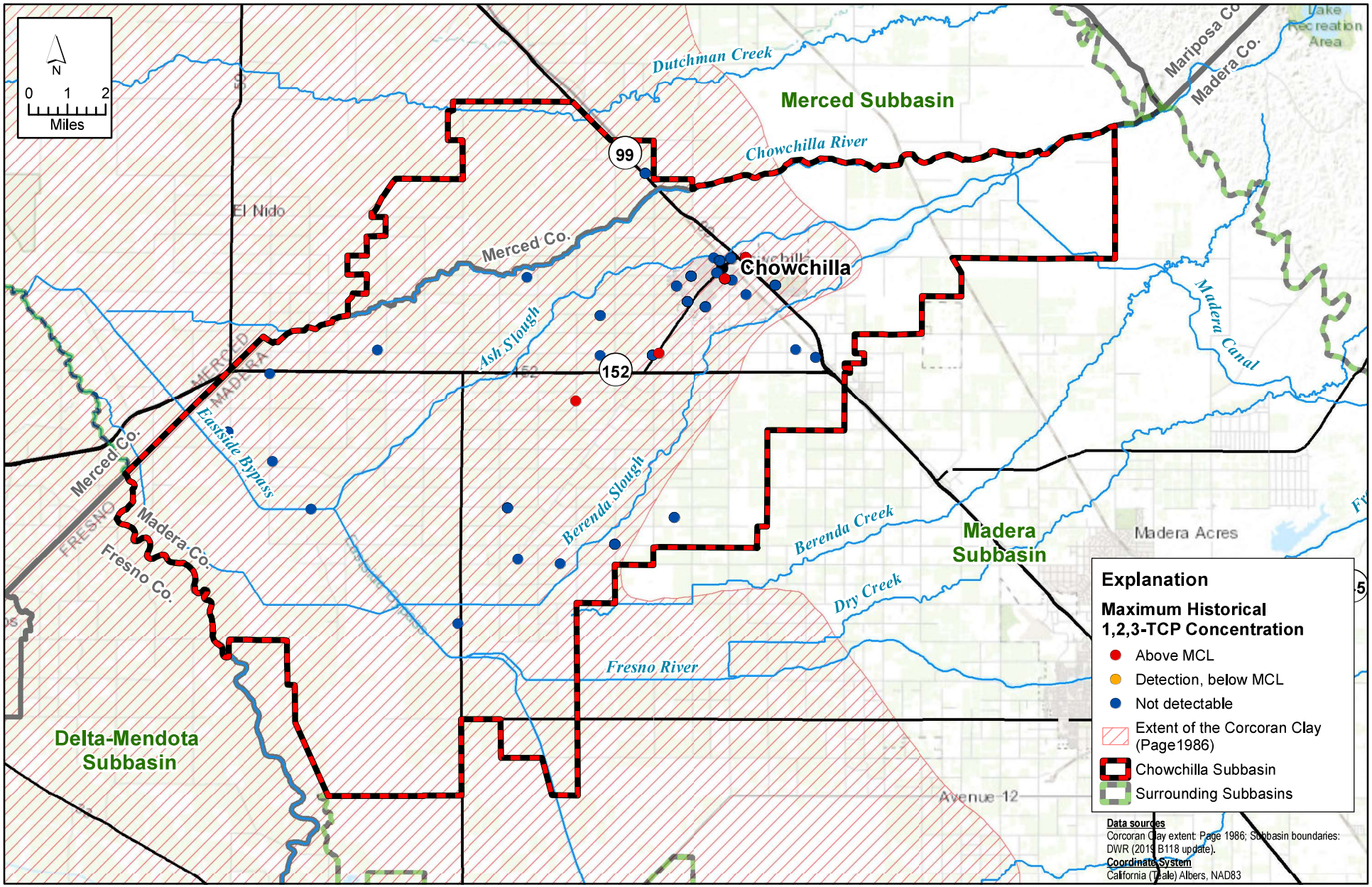
APPENDIX 2.E
Groundwater Quality Map: DBCP Concentrations in All Wells



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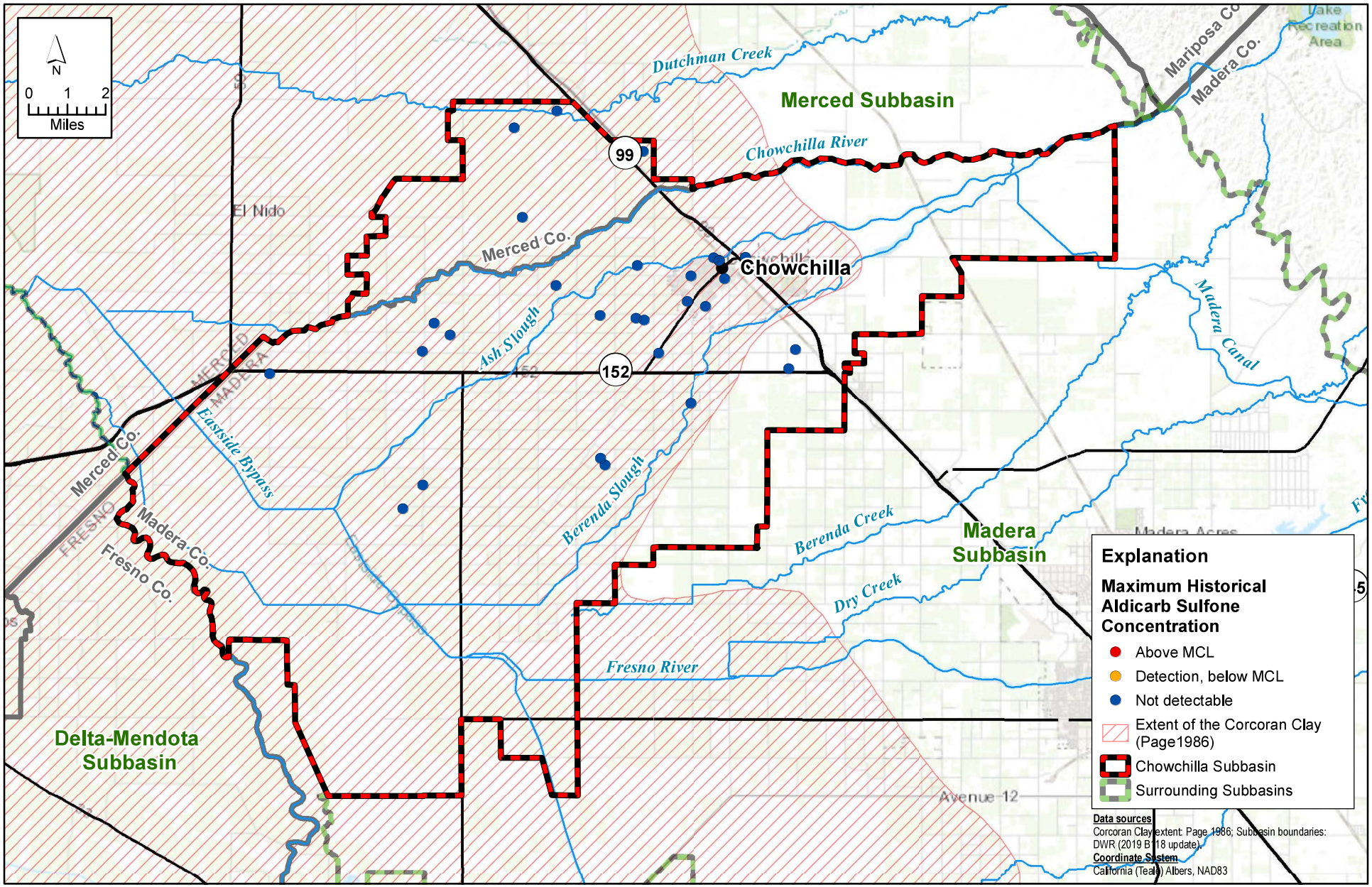
APPENDIX 2.E

Groundwater Quality Map:1,2,3-Trichloropropane (TCP) Concentrations in All Wells



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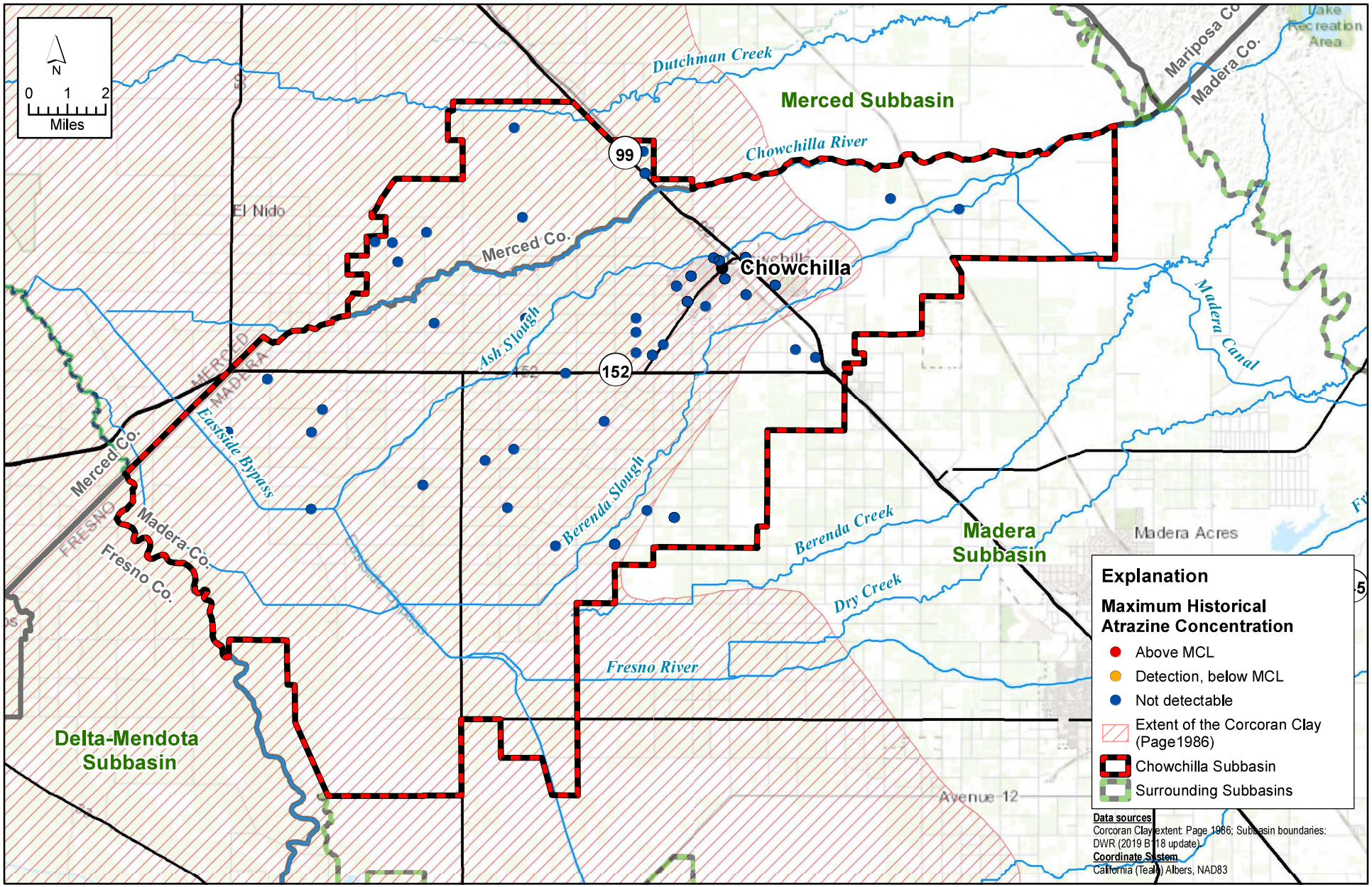
APPENDIX 2.E
Groundwater Quality Map: Aldicarb Sulfone Concentrations in All Wells



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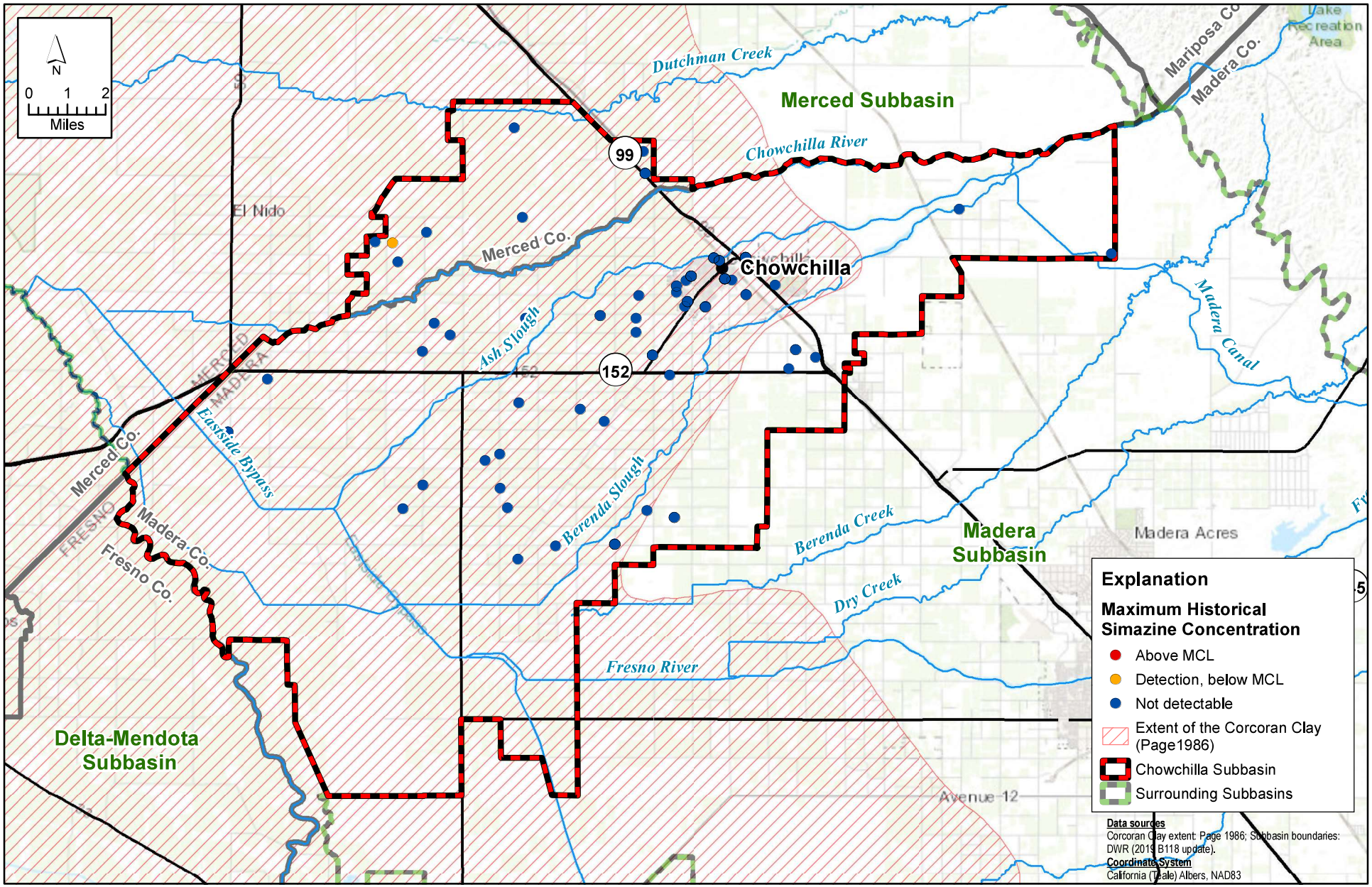
APPENDIX 2.E
Groundwater Quality Map: Atrazine Concentrations in All Wells



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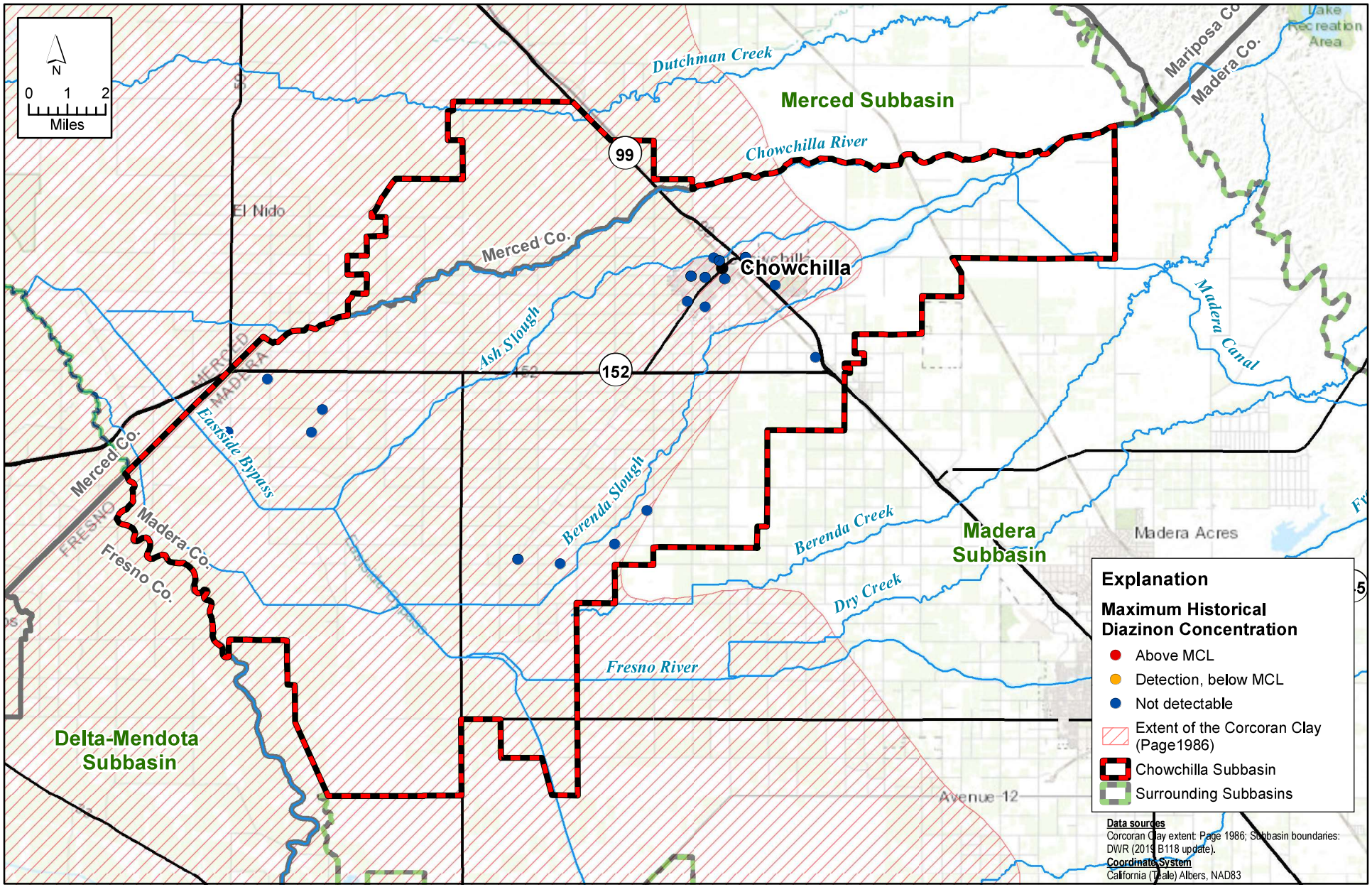
APPENDIX 2.E
Groundwater Quality Map: Simazine Concentrations in All Wells



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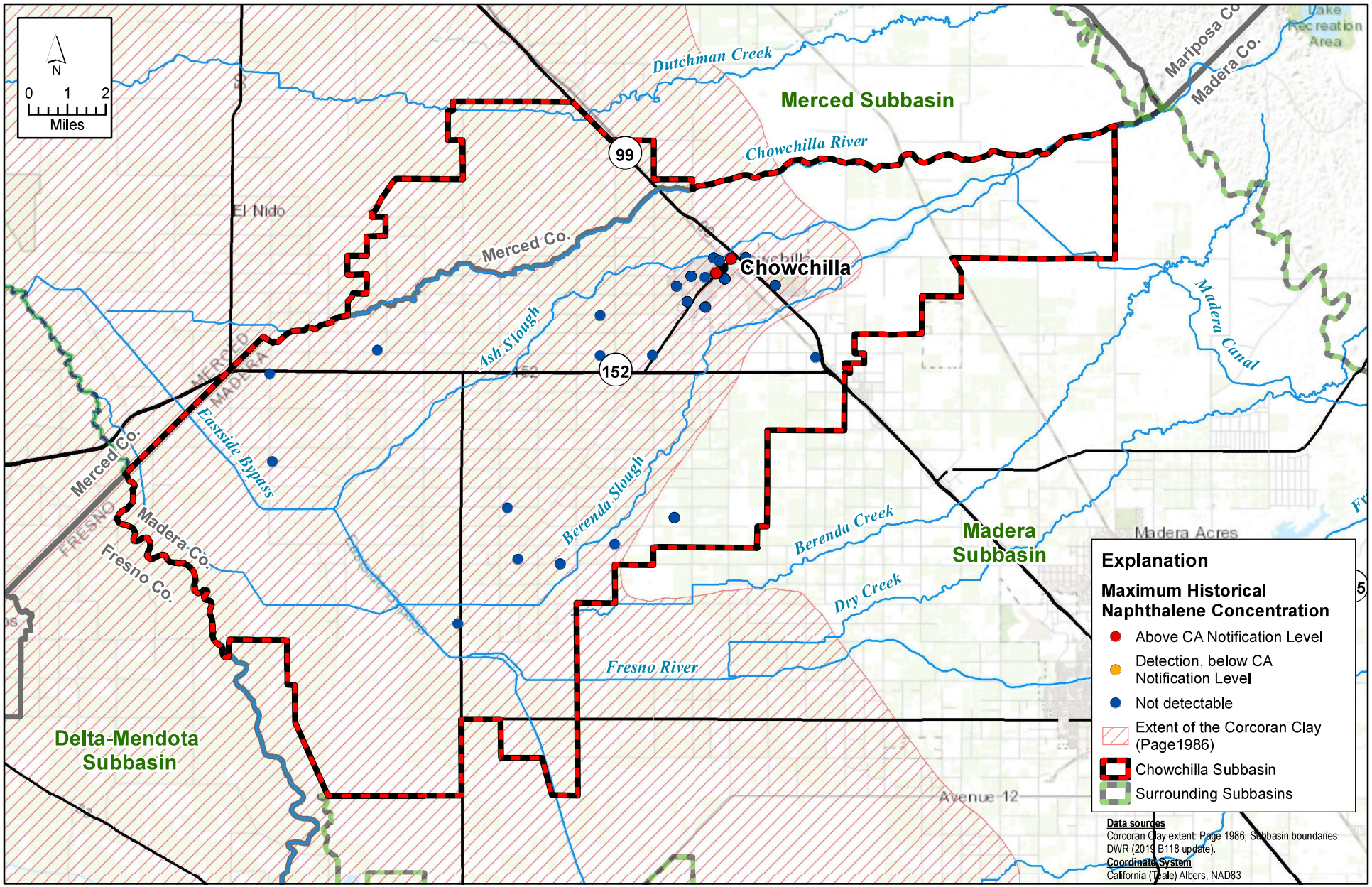
APPENDIX 2.E
Groundwater Quality Map: Diazinon Concentrations in All Wells



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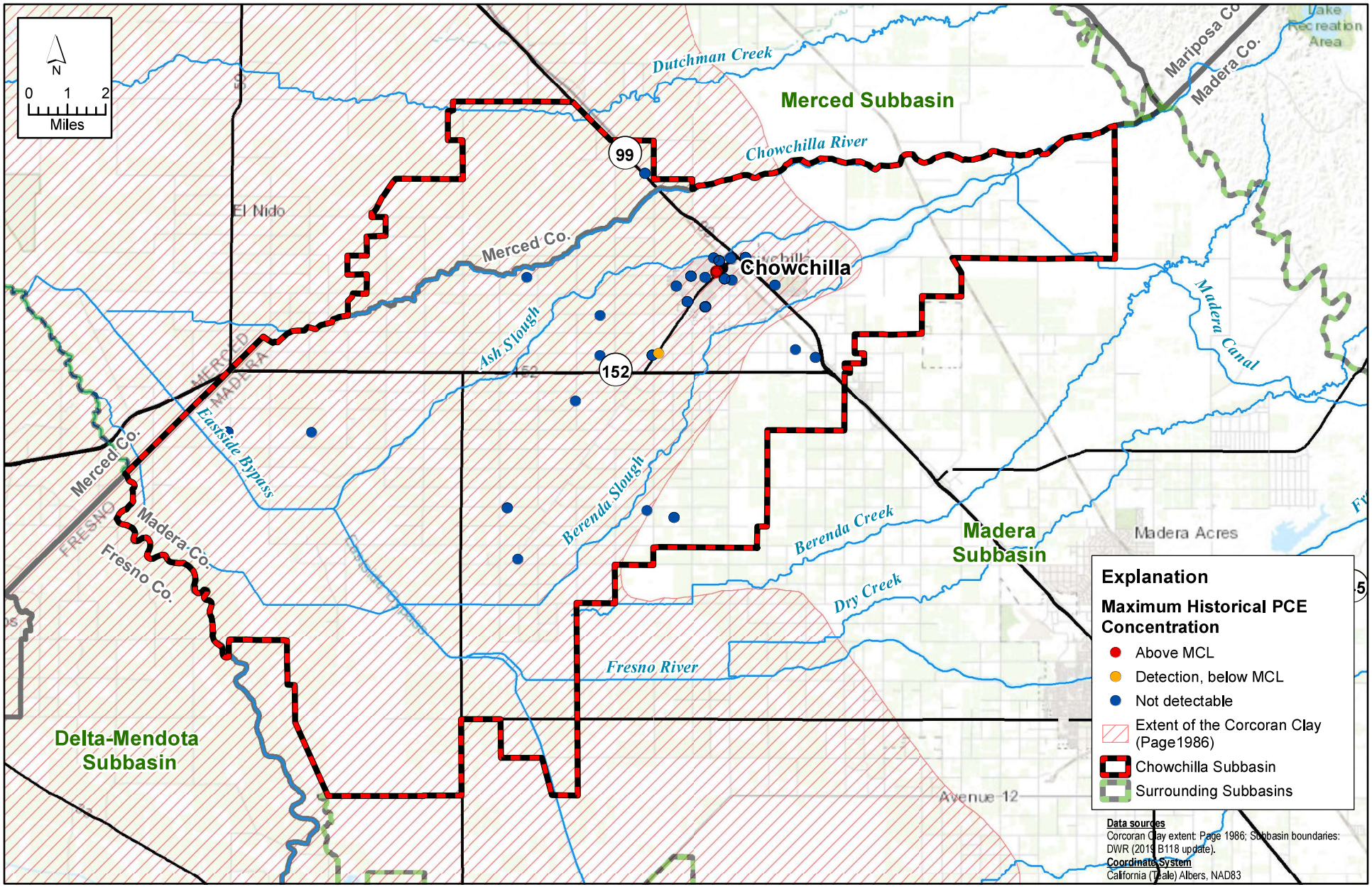
APPENDIX 2.E
Groundwater Quality Map: Naphthalene Concentrations in All Wells



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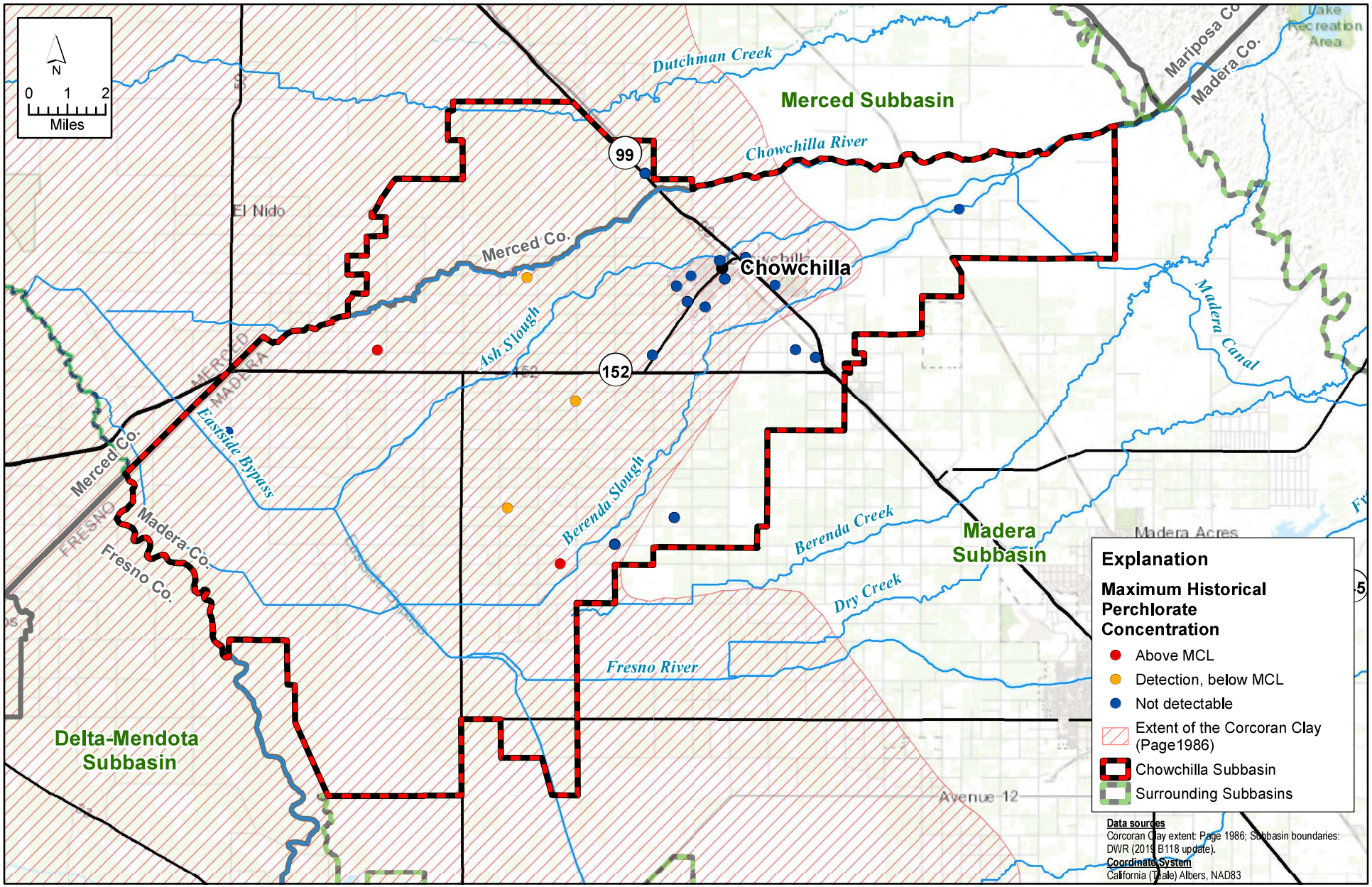
APPENDIX 2.E

Groundwater Quality Map: Tetrachloroethylene (PCE) Concentrations in All Wells



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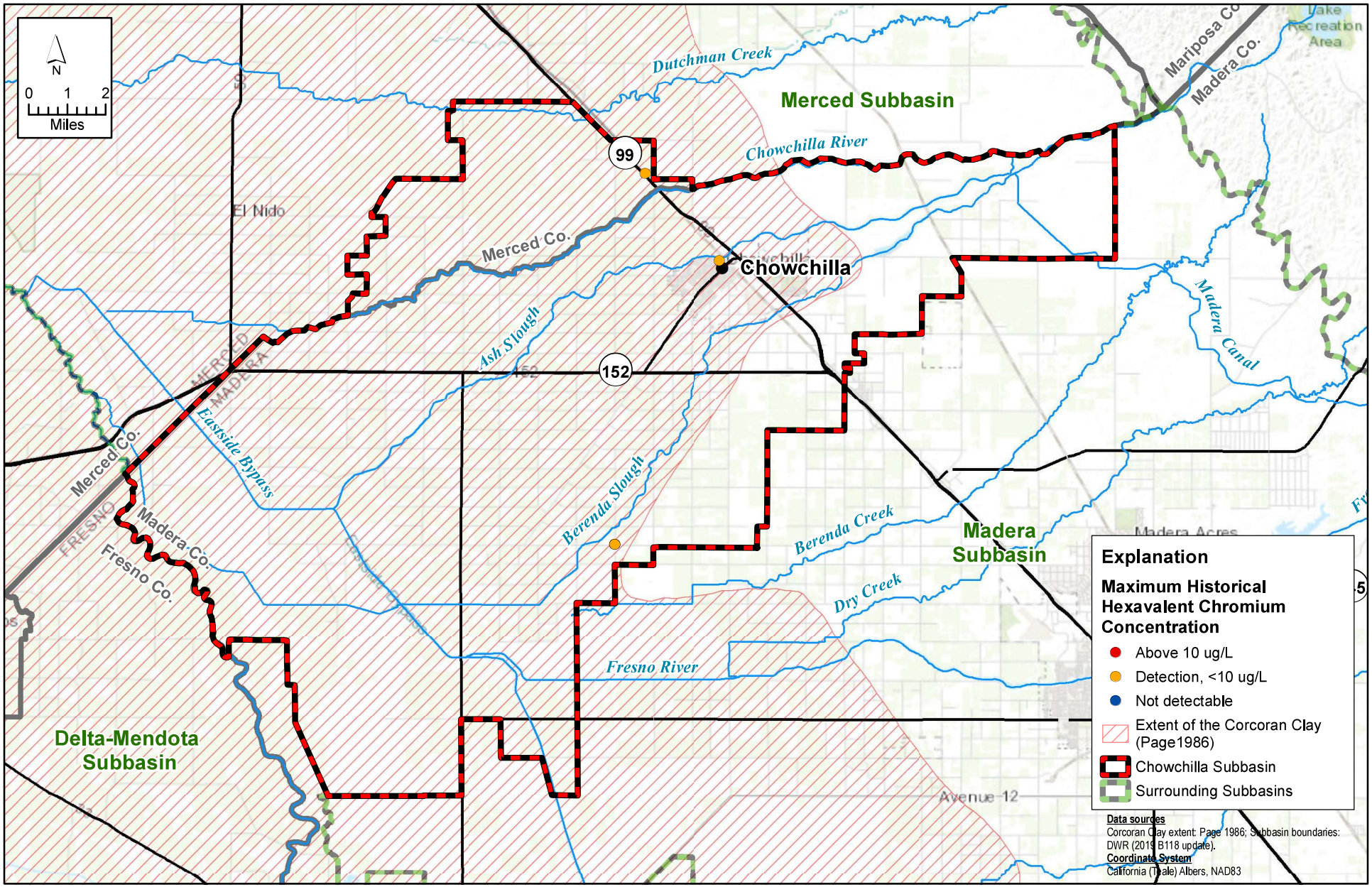
APPENDIX 2.E
Groundwater Quality Map: Perchlorate Concentrations in All Wells



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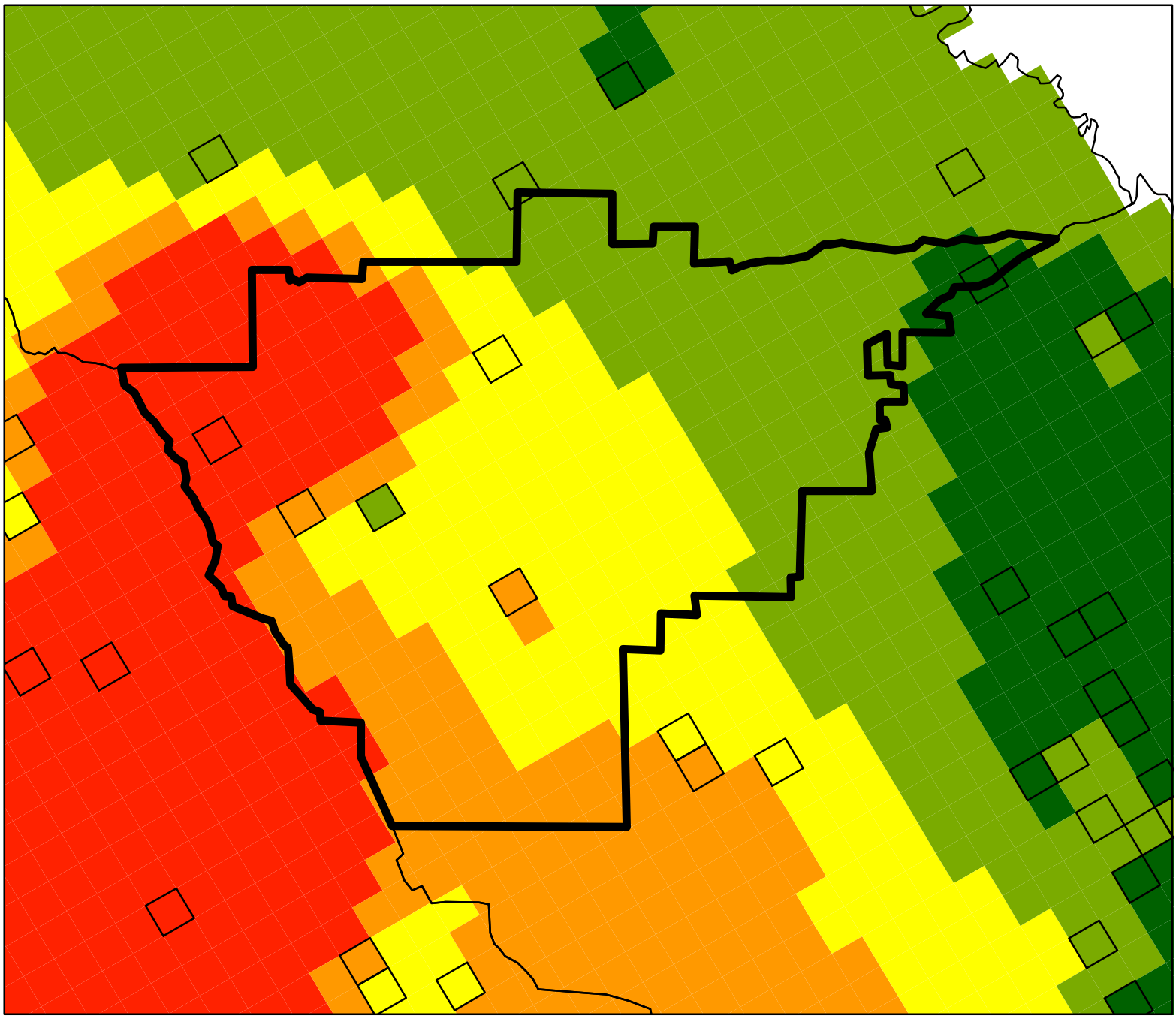
APPENDIX 2.E

Groundwater Quality Map: Chromium-6 (Hexavalent Chromium) Concentrations in All Wells



Ambient Conditions (Data: 2000-2016)

Cells With Data (1 sq mi)

Upper Zone

TDS (mg/L)

- 1 - 250
- 251 - 500
- 501 - 750
- 751 - 1,000
- >1,000
- Region 5
- DWR B118 Basins

N

0 3 6 Miles

DWR B118 Code:5-22.05

Groundwater Basin:
SAN JOAQUIN VALLEY

Groundwater Subbasin:
CHOWCHILLA

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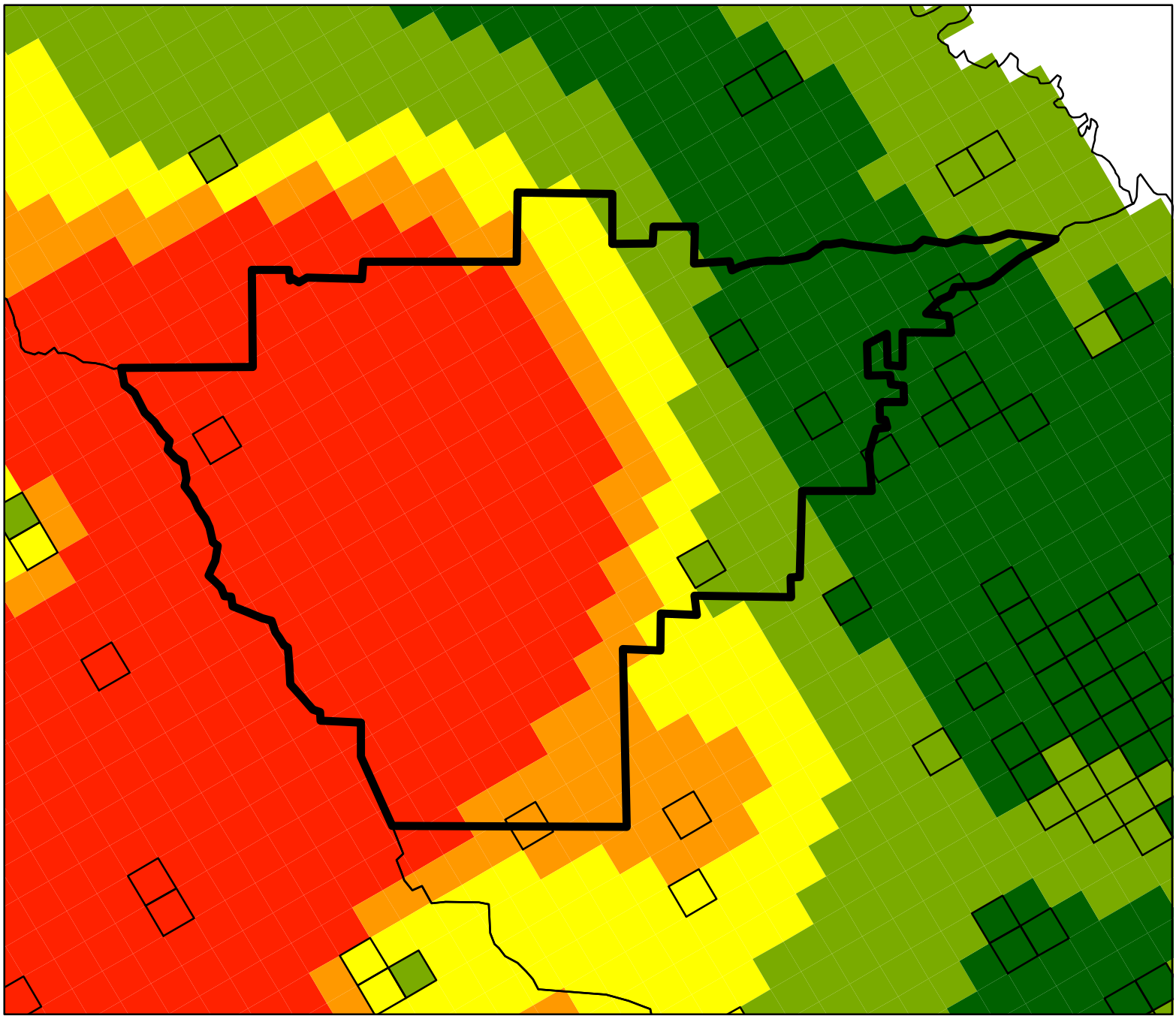
LARRY WALKER ASSOCIATES

Figure 156



Ambient Conditions (Data: 2000-2016)

Cells With Data (1 sq mi)

Lower Zone

TDS (mg/L)

- 1 - 250
- 251 - 500
- 501 - 750
- 751 - 1,000
- >1,000
- Region 5
- DWR B118 Basins

N

0 3 6 Miles

DWR B118 Code:5-22.05

Groundwater Basin:
SAN JOAQUIN VALLEY

Groundwater Subbasin:
CHOWCHILLA

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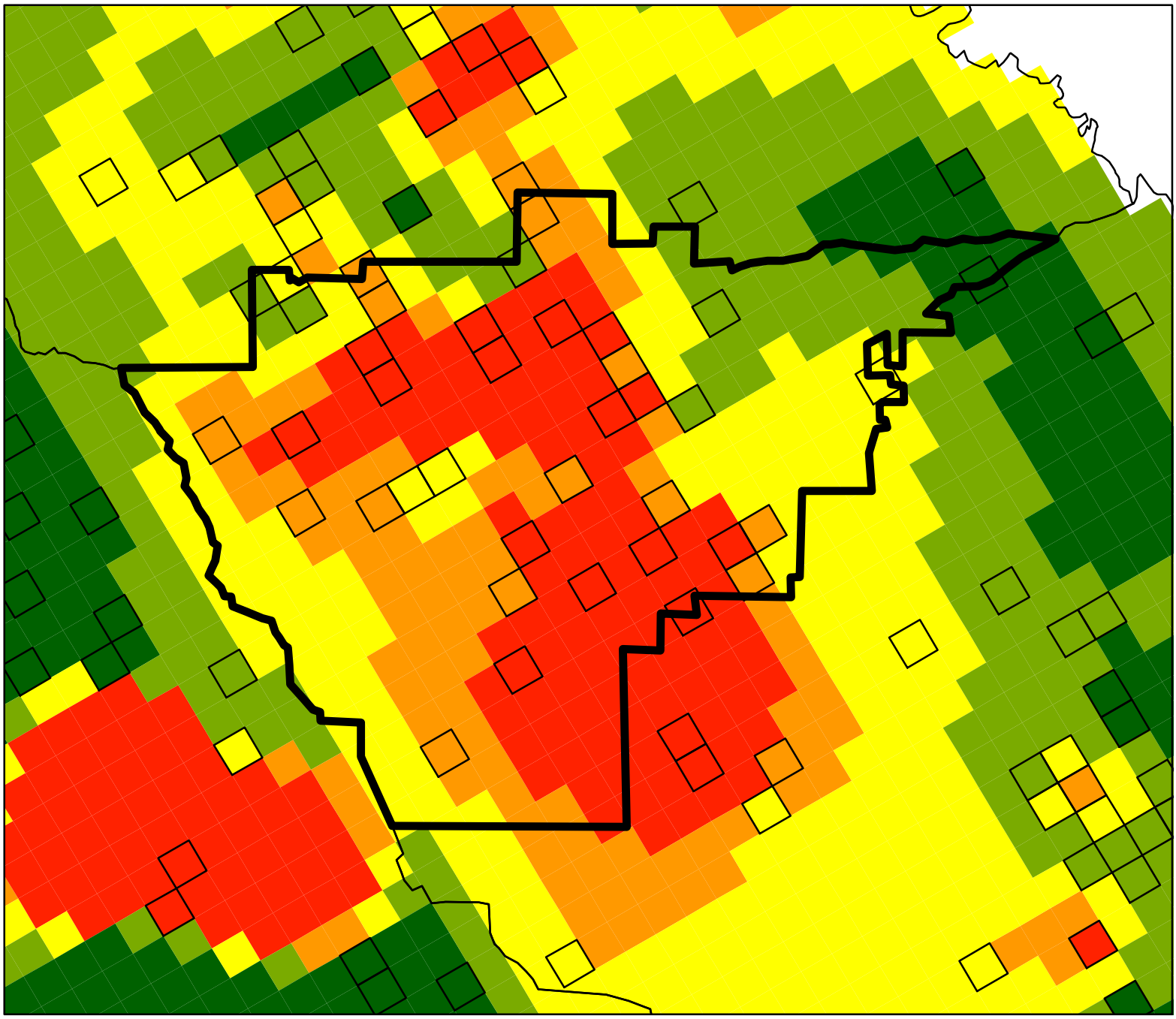
LARRY WALKER ASSOCIATES

Figure 197



Ambient Conditions (Data: 2000-2016)

Cells With Data (1 sq mi)

Upper Zone

Nitrate (mg/L as N)

- 0.1 - 2.5
- 2.6 - 5.0
- 5.1 - 7.5
- 7.6 - 10.0
- >10
- Region 5
- DWR B118 Basins

N

0 3 6 Miles

DWR B118 Code:5-22.05

Groundwater Basin:
SAN JOAQUIN VALLEY

Groundwater Subbasin:
CHOWCHILLA

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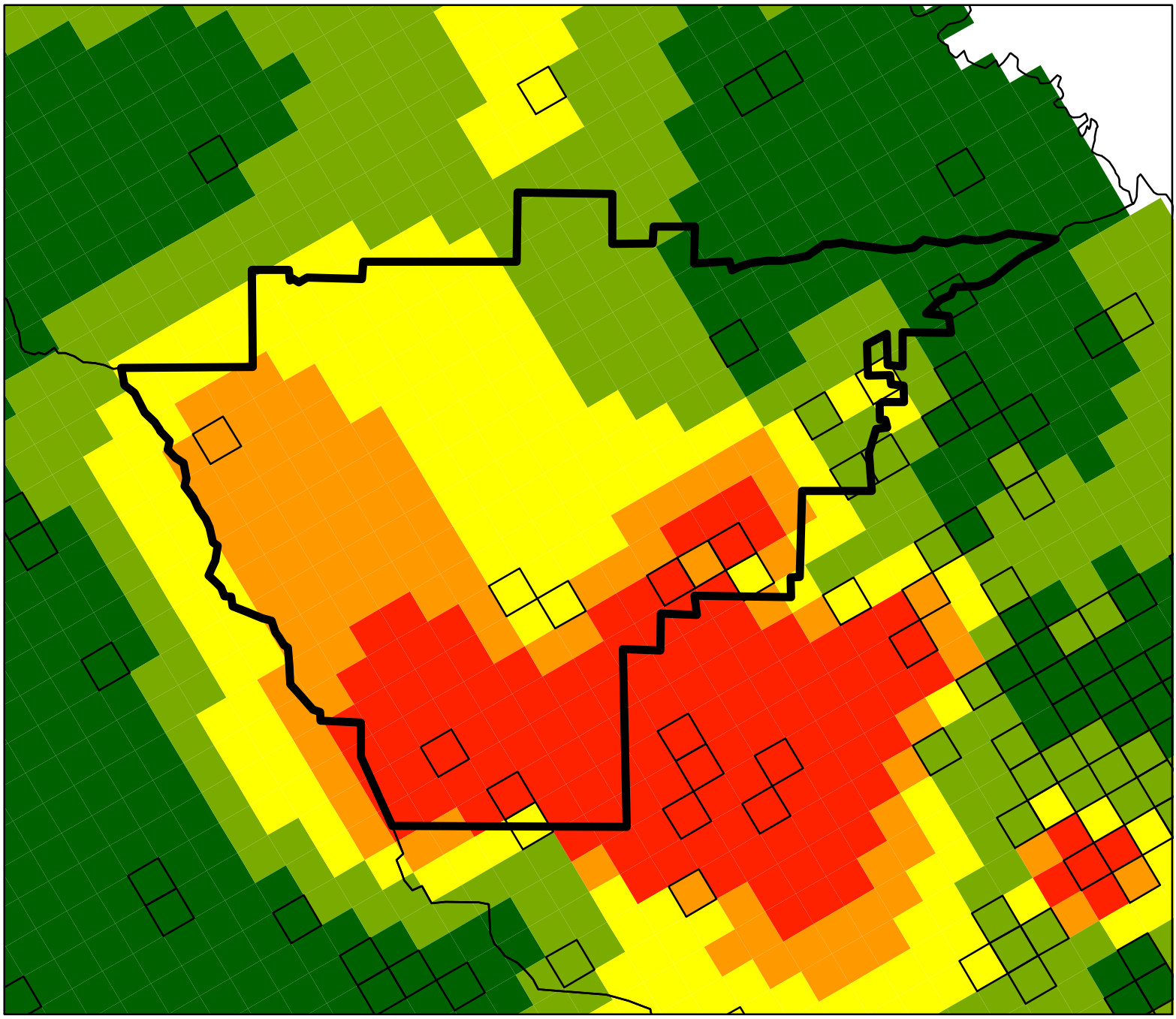
Figure 33



Ambient Conditions (Data: 2000-2016)

Cells With Data (1 sq mi)

Lower Zone

Nitrate (mg/L as N)

- 0.1 - 2.5
- 2.6 - 5.0
- 5.1 - 7.5
- 7.6 - 10.0
- >10
- Region 5
- DWR B118 Basins

N

0 3 6 Miles

DWR B118 Code:5-22.05

Groundwater Basin:
SAN JOAQUIN VALLEY

Groundwater Subbasin:
CHOWCHILLA

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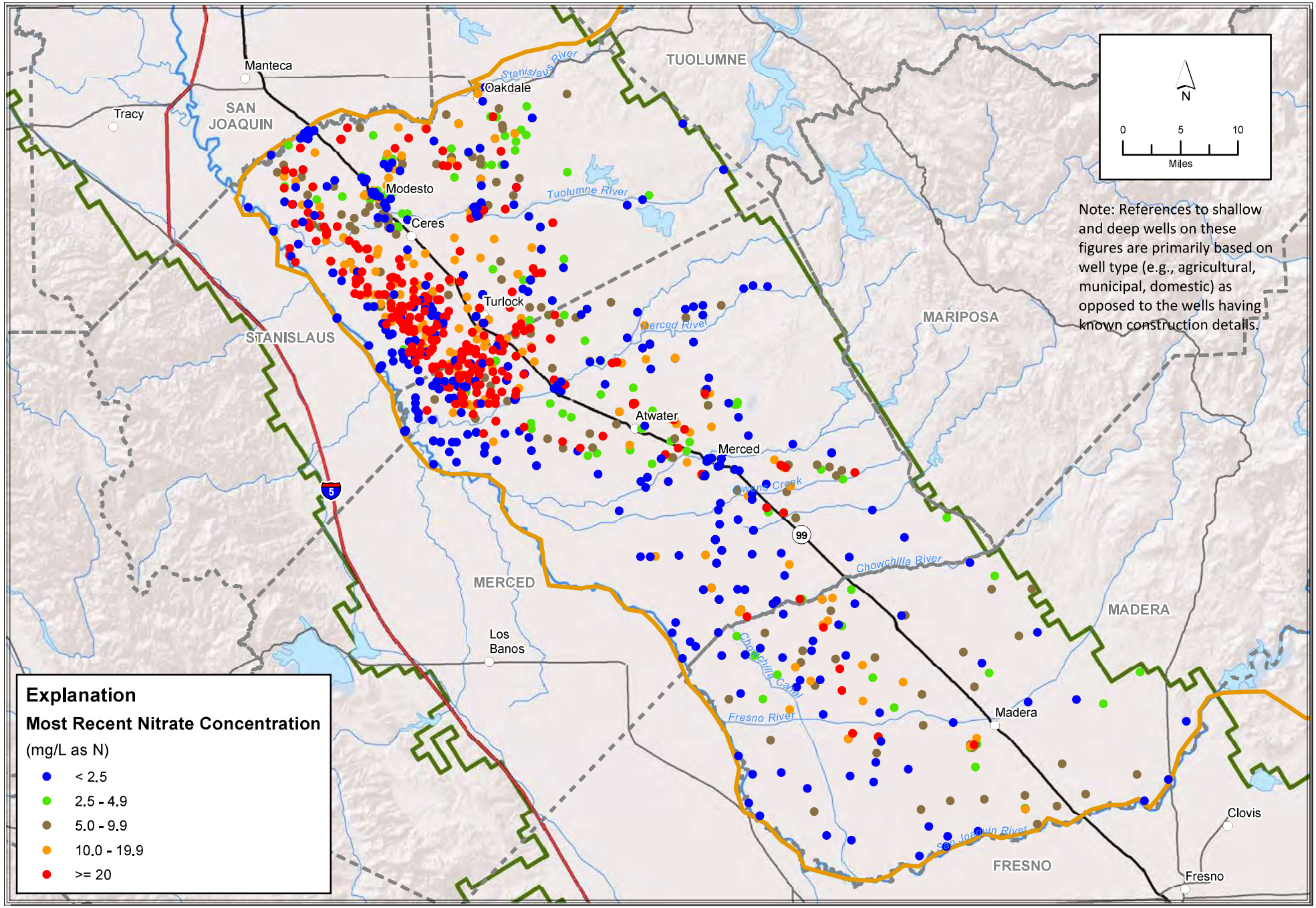
LARRY WALKER ASSOCIATES

Figure 74



Path: X:\2012 Job Files\12-118\Report\Figures\Final GIS Map Files\Figure 5-4 Nitrate Concentrations in Central Valley Floor Shallow Wells.mxd

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Figure 5-4

Nitrate Concentrations in the Central Valley Floor: Shallow Wells

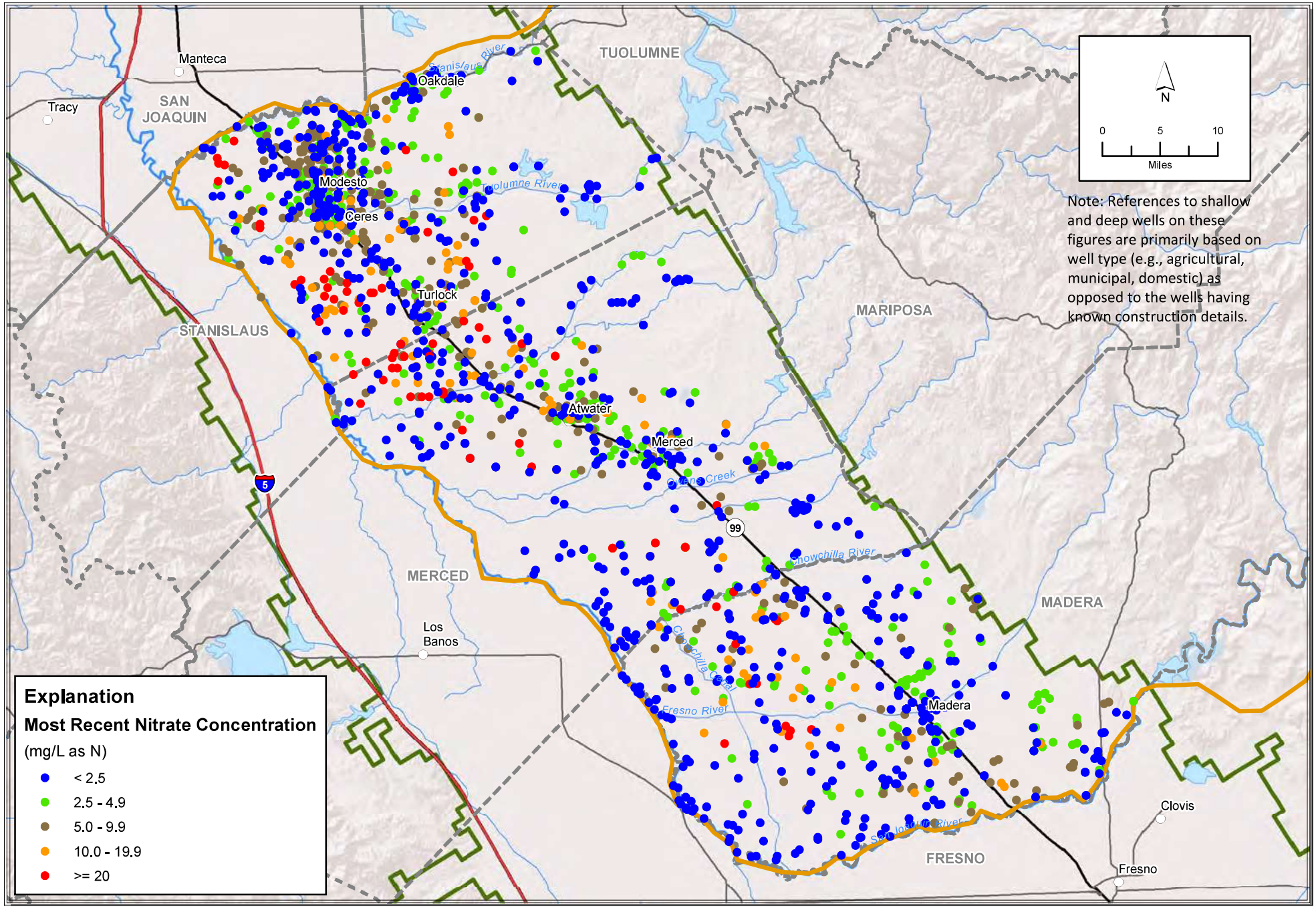

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Figure 5-5

Nitrate Concentrations in the Central Valley Floor: Deep Wells

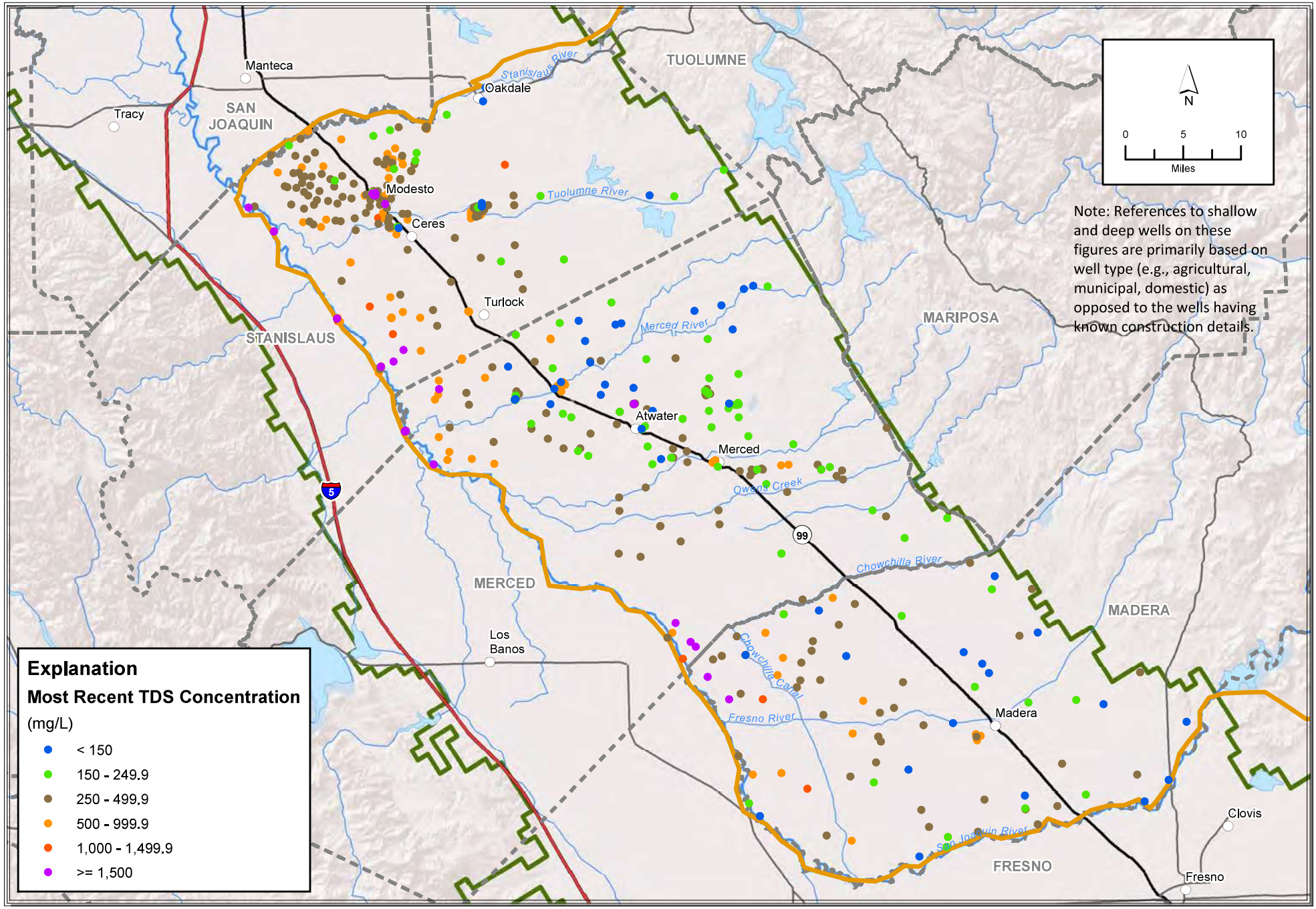

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Figure 5-7

TDS Concentrations in the Central Valley Floor: Shallow Wells

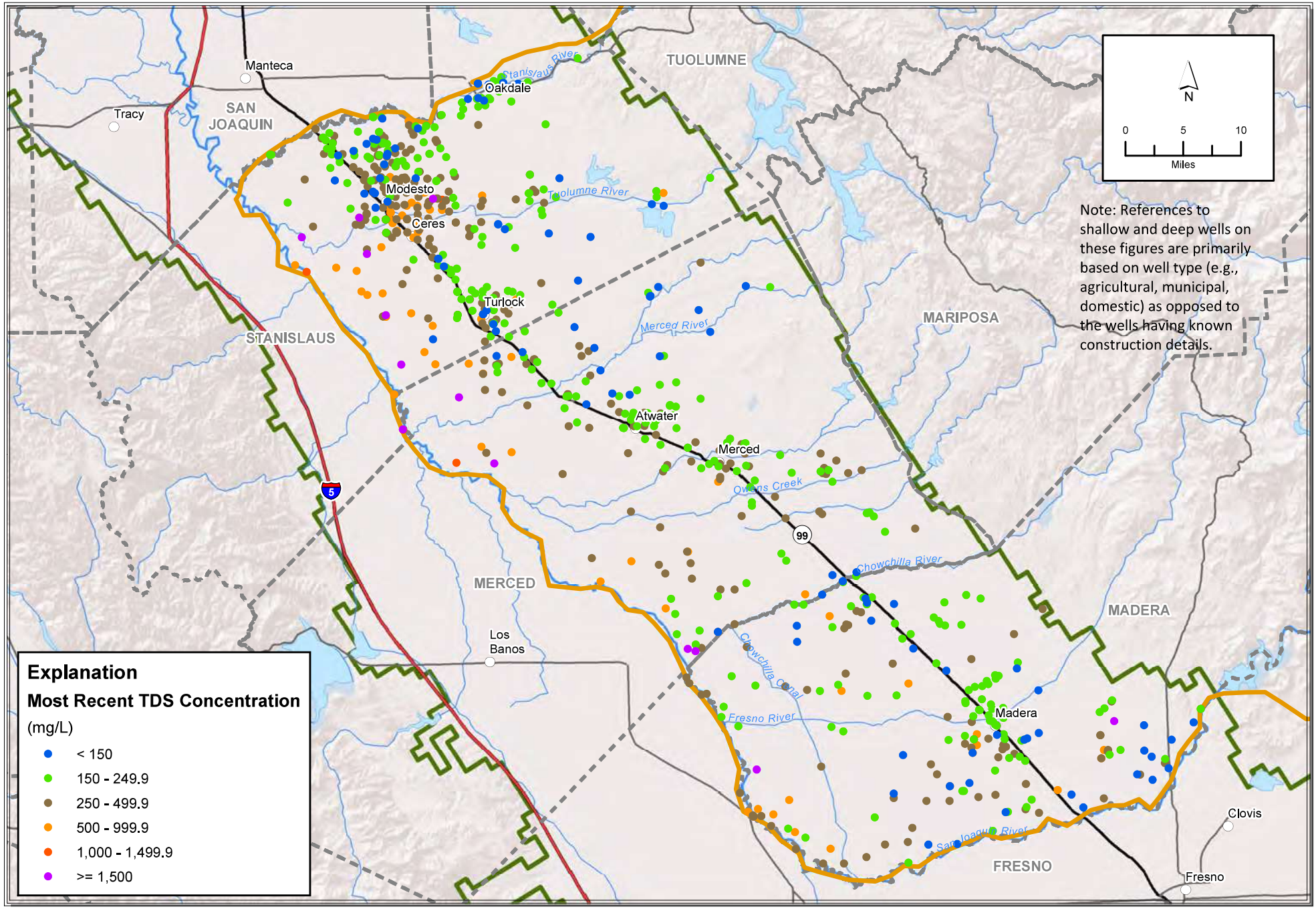

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Figure 5-8

TDS Concentrations in the Central Valley Floor: Deep Wells

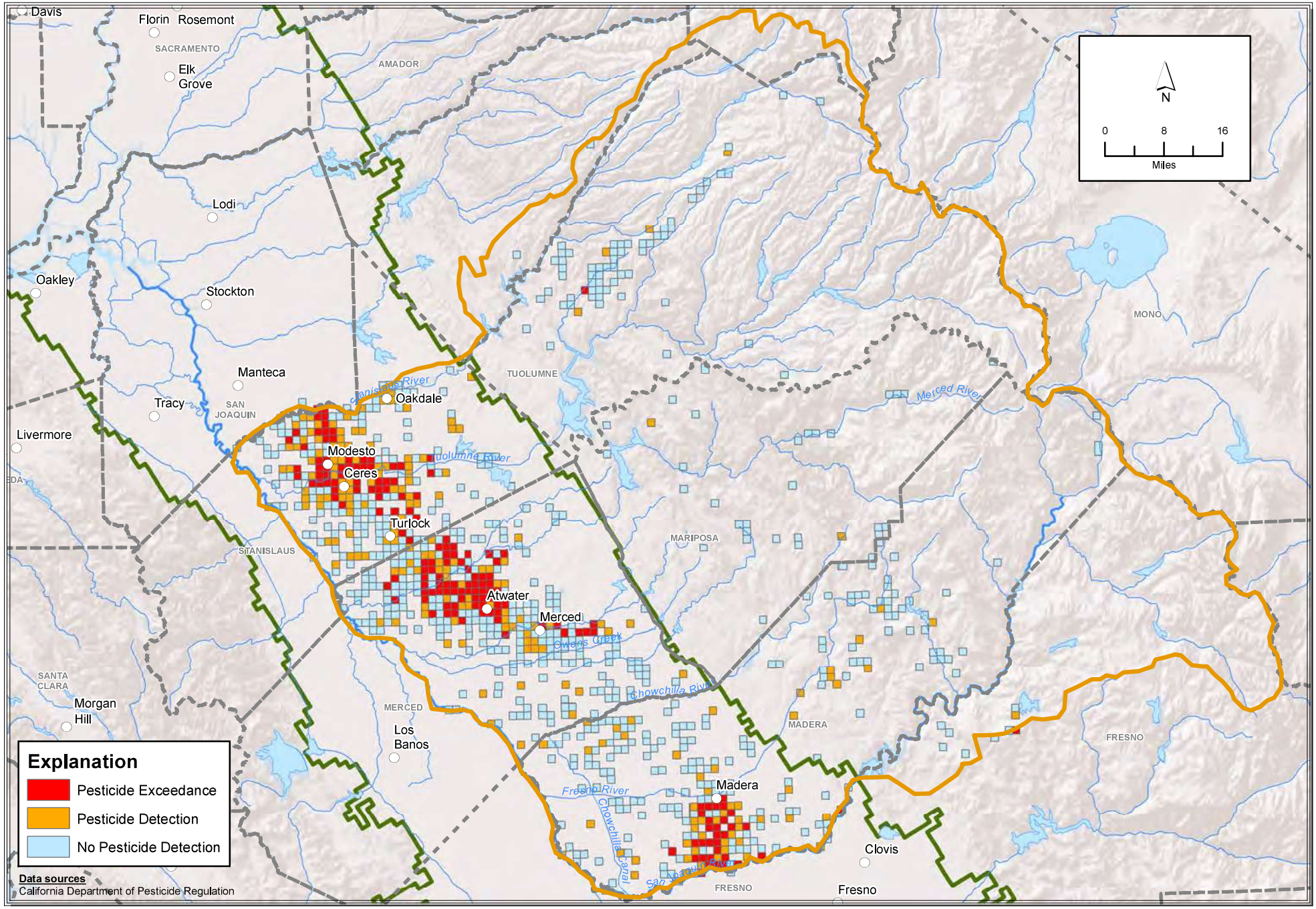

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Figure 5-10c
Pesticide Detection Or Exceedance By Section

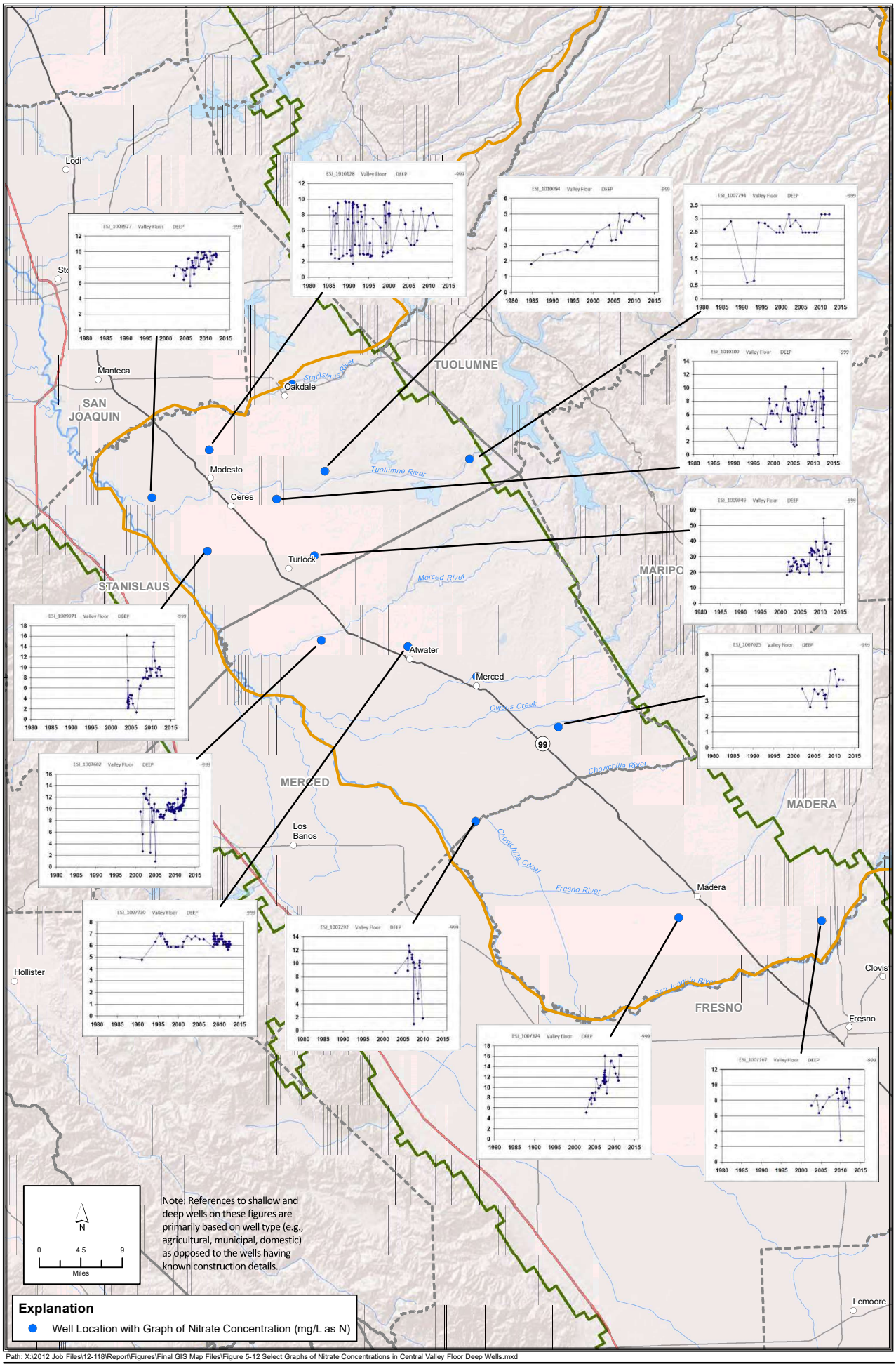

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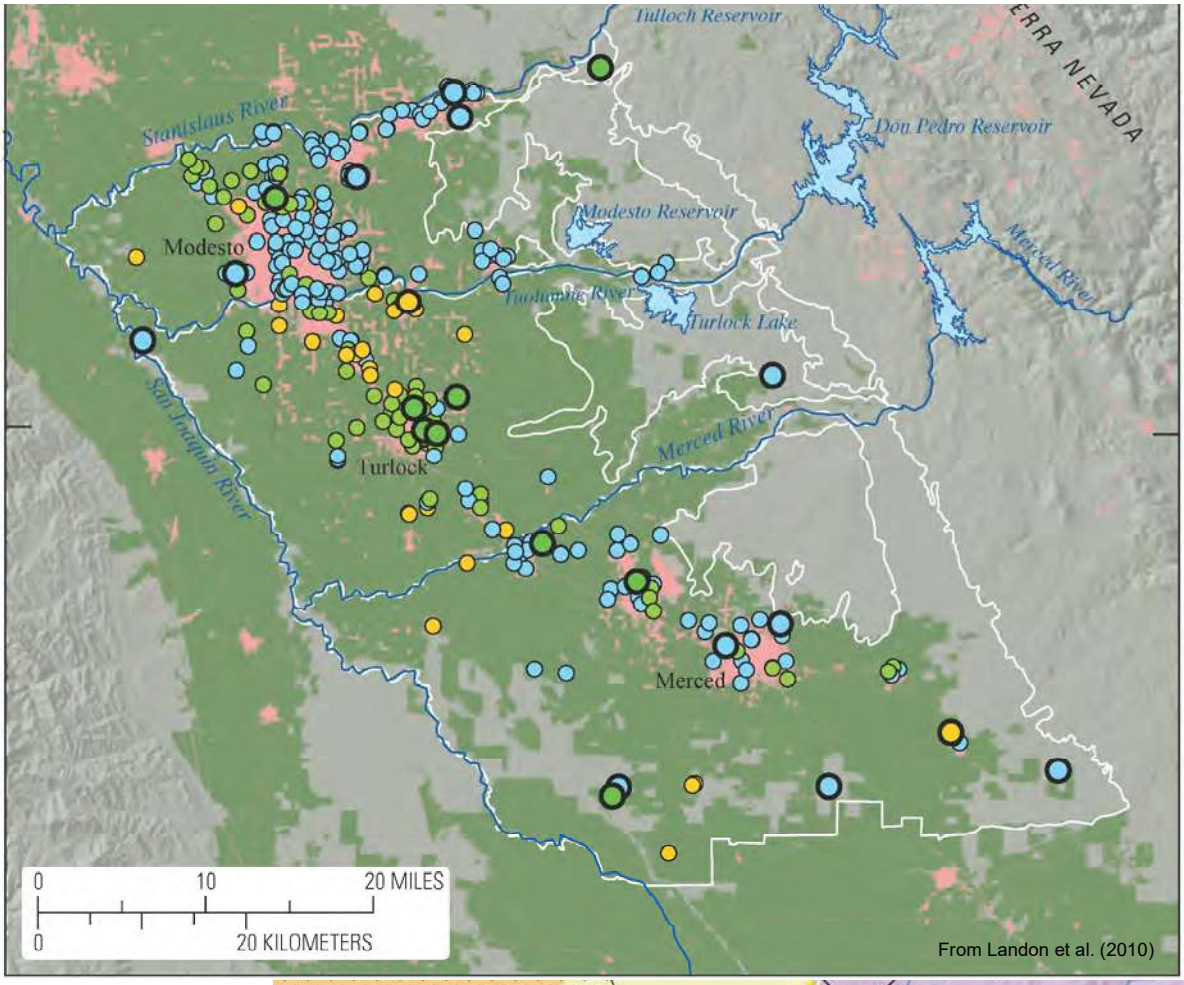
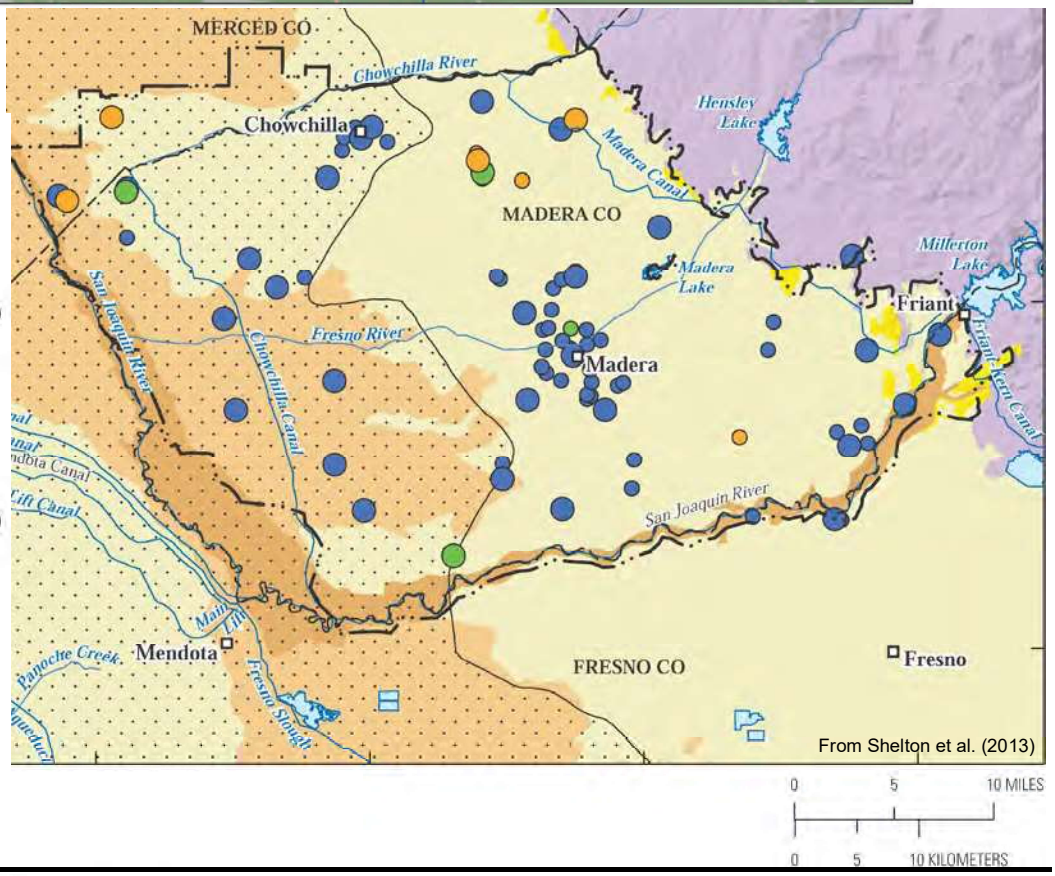
Figure 5-12
Select Graphs of Nitrate Concentrations in the Central Valley Floor: Deep Wells





EXPLANATION

USGS GAMA arsenic

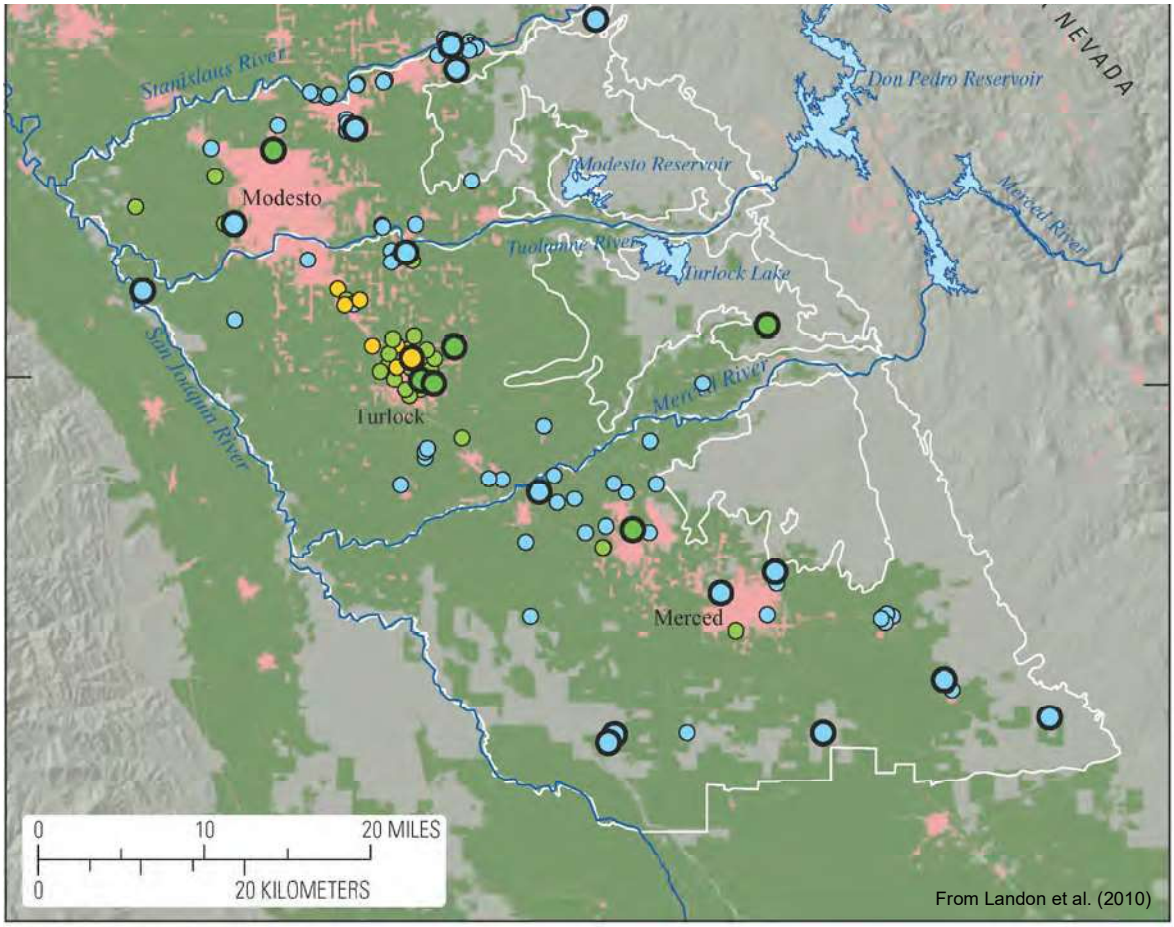
- Low (< 5 micrograms per liter)
- Moderate (5 – 10 micrograms per liter)
- High (> 10 micrograms per liter)

CDPH arsenic

- Low (< 5 micrograms per liter)
- Moderate (5 – 10 micrograms per liter)
- High (> 10 micrograms per liter)

Figure 5-23a

Other Groundwater Quality Data: Arsenic



From Landon et al. (2010)

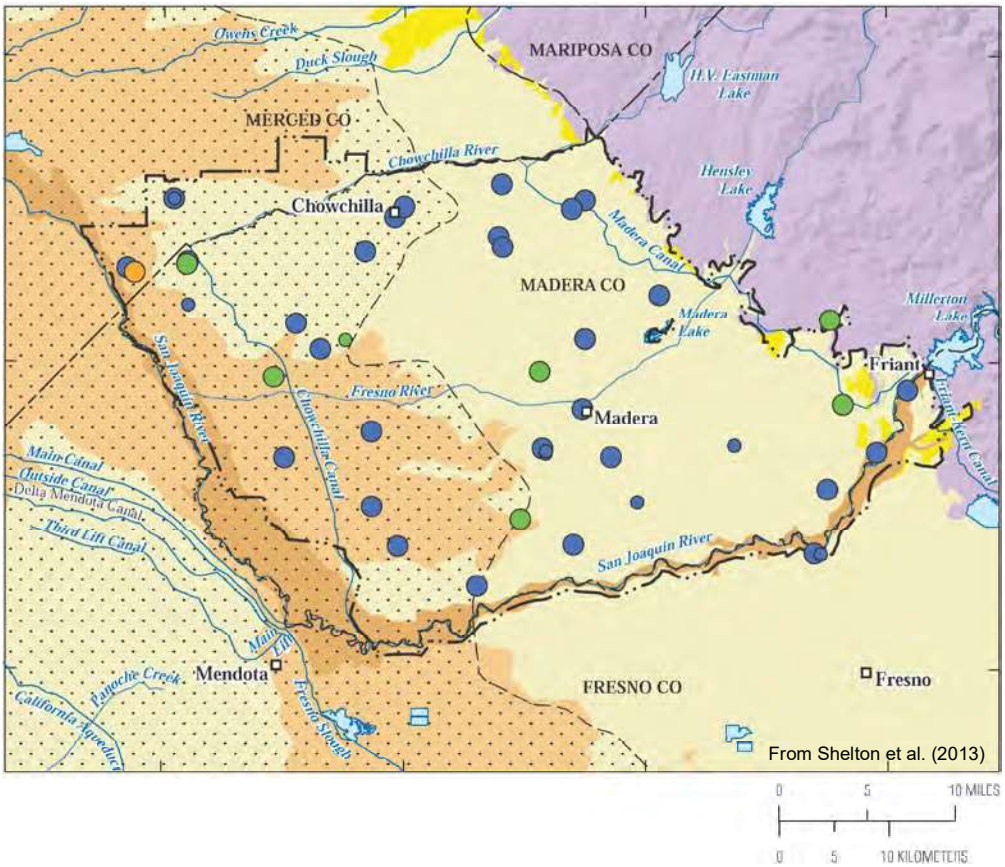
EXPLANATION

USGS GAMA vanadium

- Low (< 25 micrograms per liter)
- Moderate (25 – 50 micrograms per liter)
- High (> 50 micrograms per liter)

CDPH vanadium

- Low (< 25 micrograms per liter)
- Moderate (25 – 50 micrograms per liter)
- High (> 50 micrograms per liter)



From Shelton et al. (2013)

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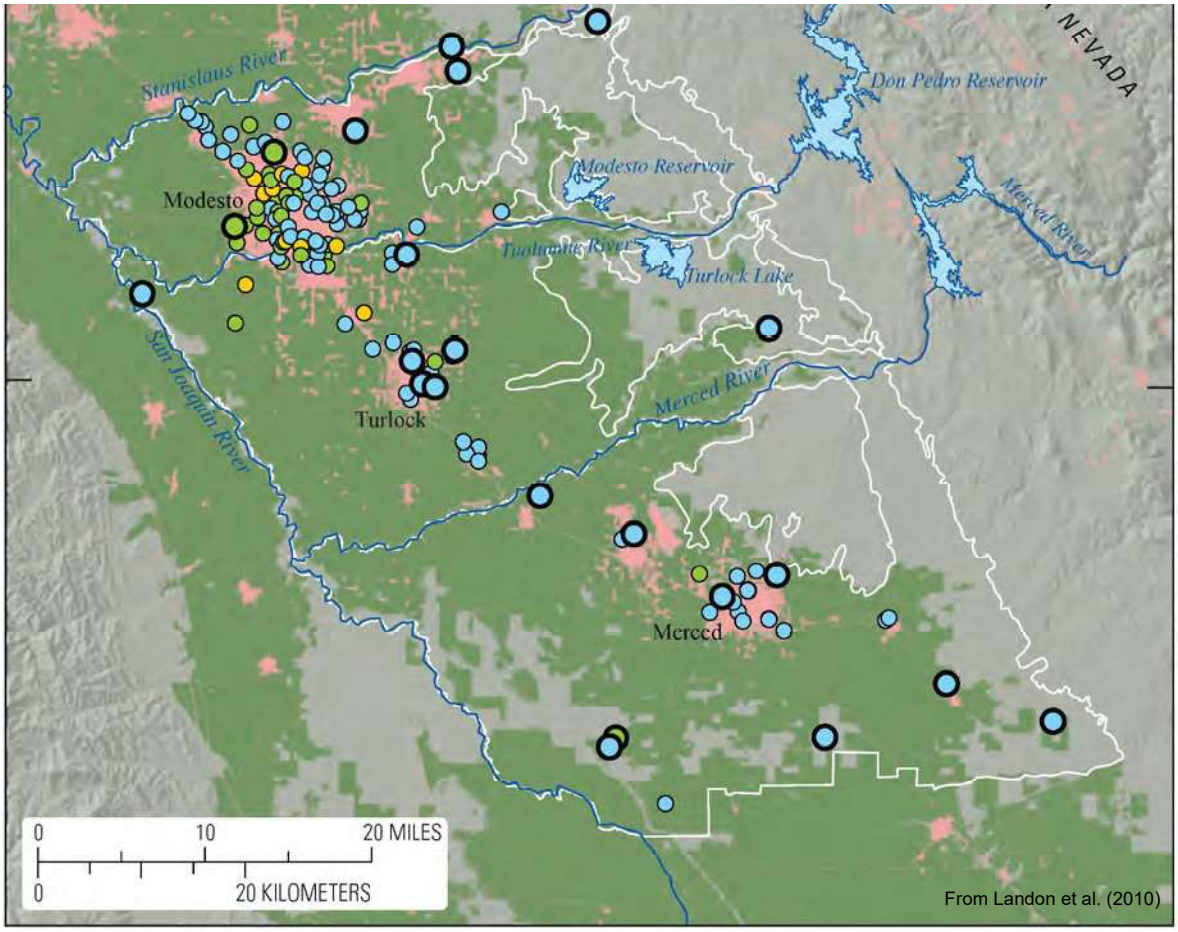
Figure 5-23b

Other Groundwater Quality Data: Vanadium



From Landon et al. (2010)

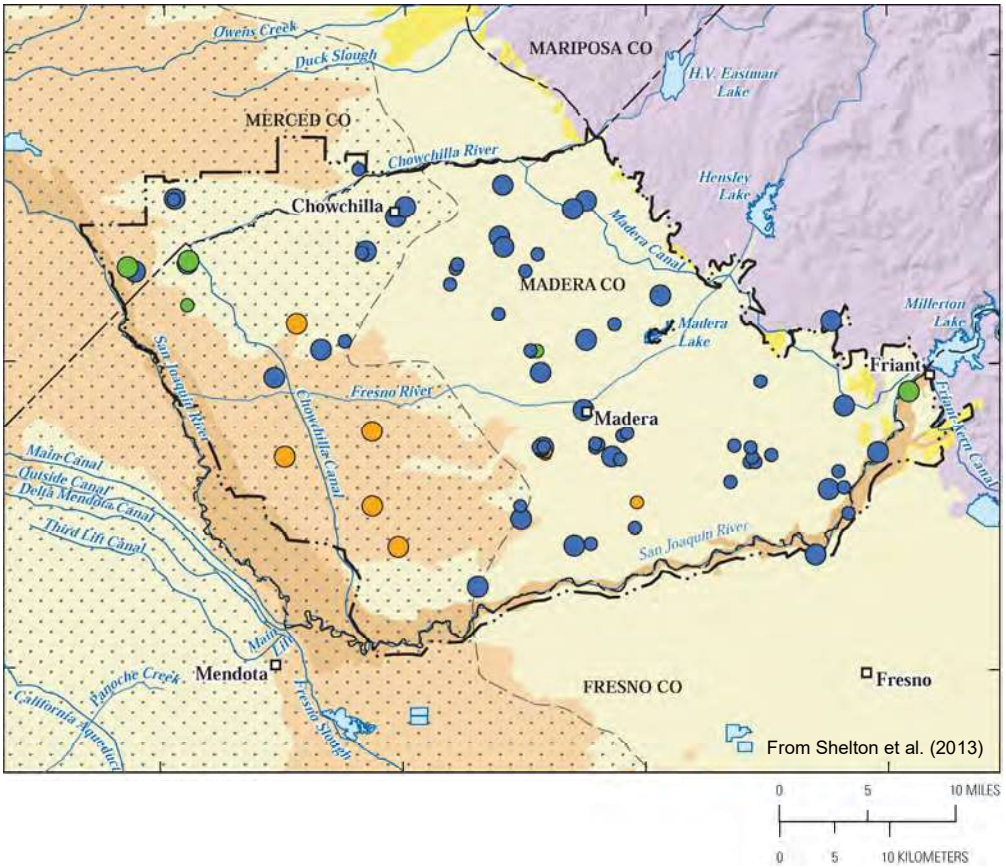
EXPLANATION

USGS GAMA uranium

- Low (< 15 micrograms per liter)
- Moderate (15 – 30 micrograms per liter)
- High (> 30 micrograms per liter)

CDPH uranium

- Low (< 15 micrograms per liter)
- Moderate (15 – 30 micrograms per liter)
- High (> 30 micrograms per liter)



From Shelton et al. (2013)

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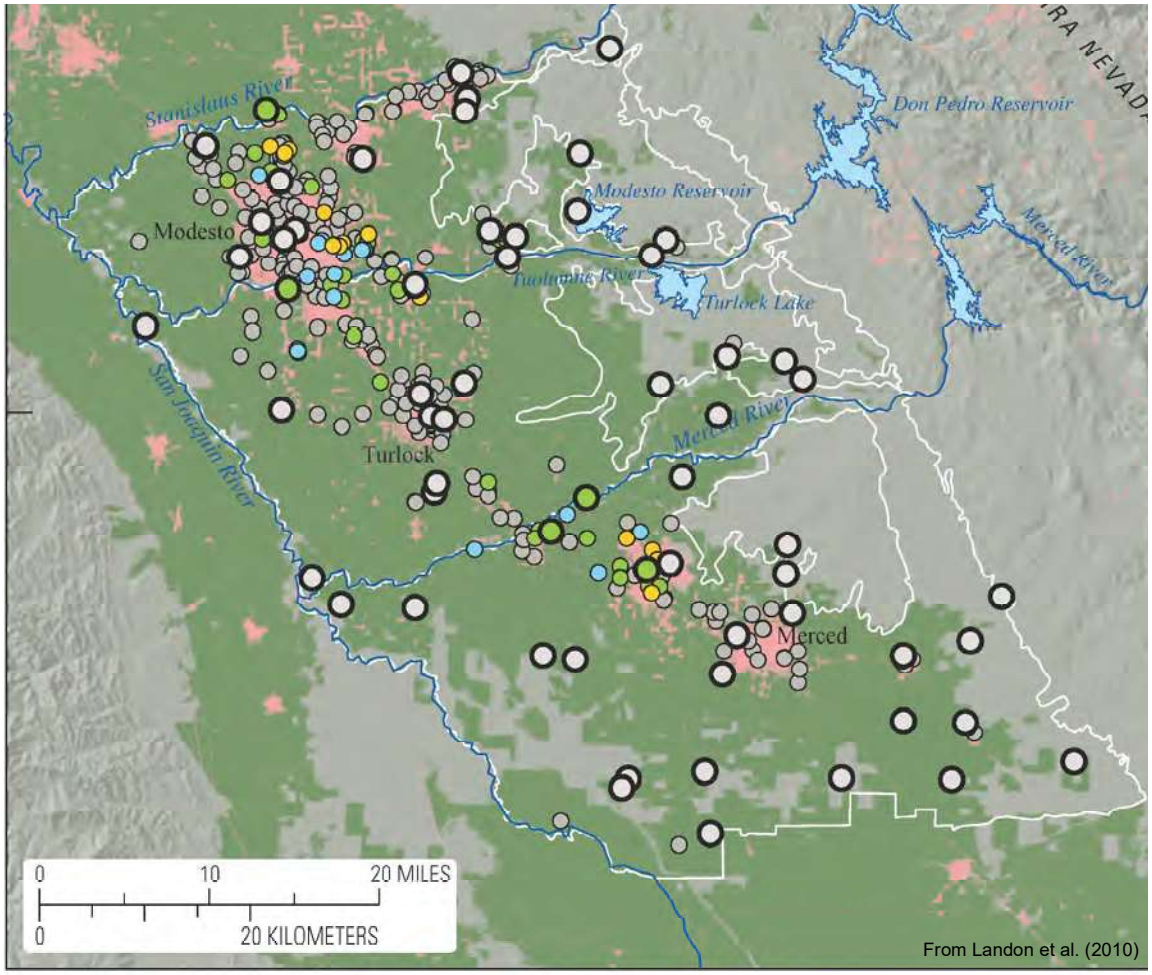
Figure 5-23c

A2.B166

Other Groundwater Quality Data: Uranium



From Landon et al. (2010)

EXPLANATION

USGS GAMA DBCP

- Not detected (< 0.03 micrograms per liter)
- Moderate (0.03 – 0.20 micrograms per liter)

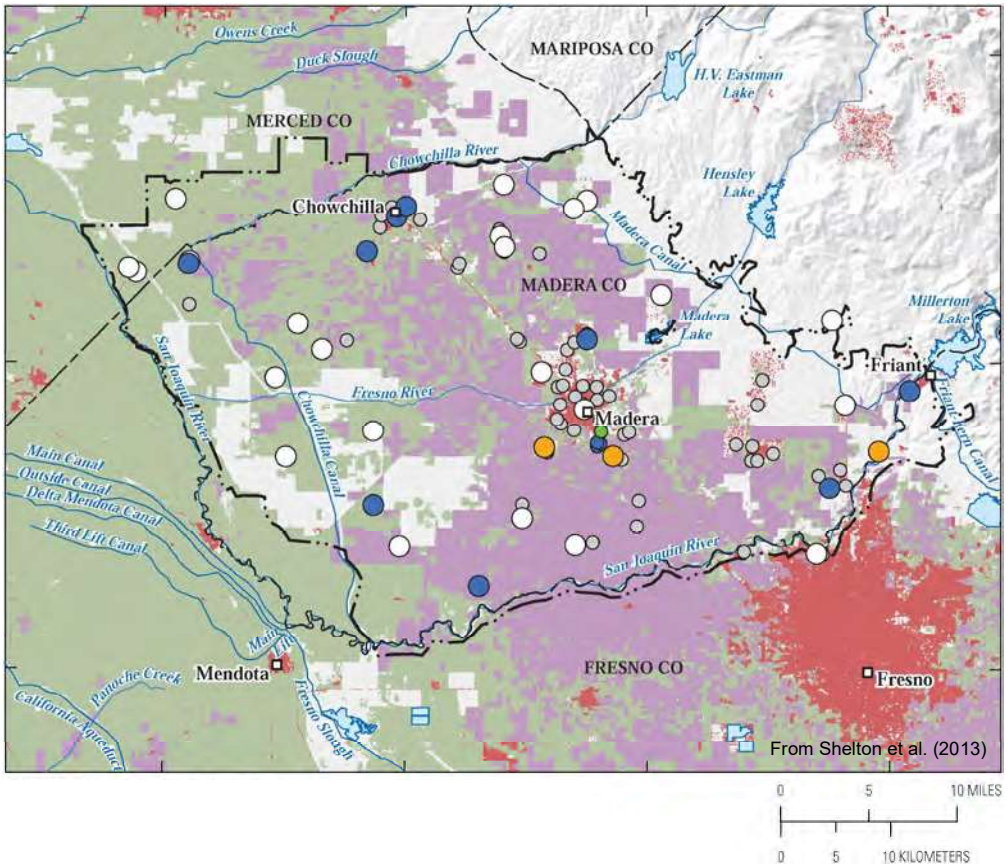
CDPH DBCP

- Low or not detected (< 0.01 micrograms per liter)
- Low (0.01 - 0.02 micrograms per liter)
- Moderate (0.03 – 0.20 micrograms per liter)
- High (> 0.20 micrograms per liter)

Fumigants
Maximum relative-concentration (RC) by well

RC category*	Wells: USGS GAMA	Wells: CDPH (data in 3-year period 2/12/2005–2/12/2008)
Not detected	○	○
Low	●	●
Moderate		●
High	●	

Fumigants include:
1,2-dibromo-3-chloropropane (DBCP)
1,2-dibromoethane (EDB)
1,2,3-trichloropropane (1,2,3-TCP)
1,2-dichloropropane (1,2-DCP)



From Shelton et al. (2013)

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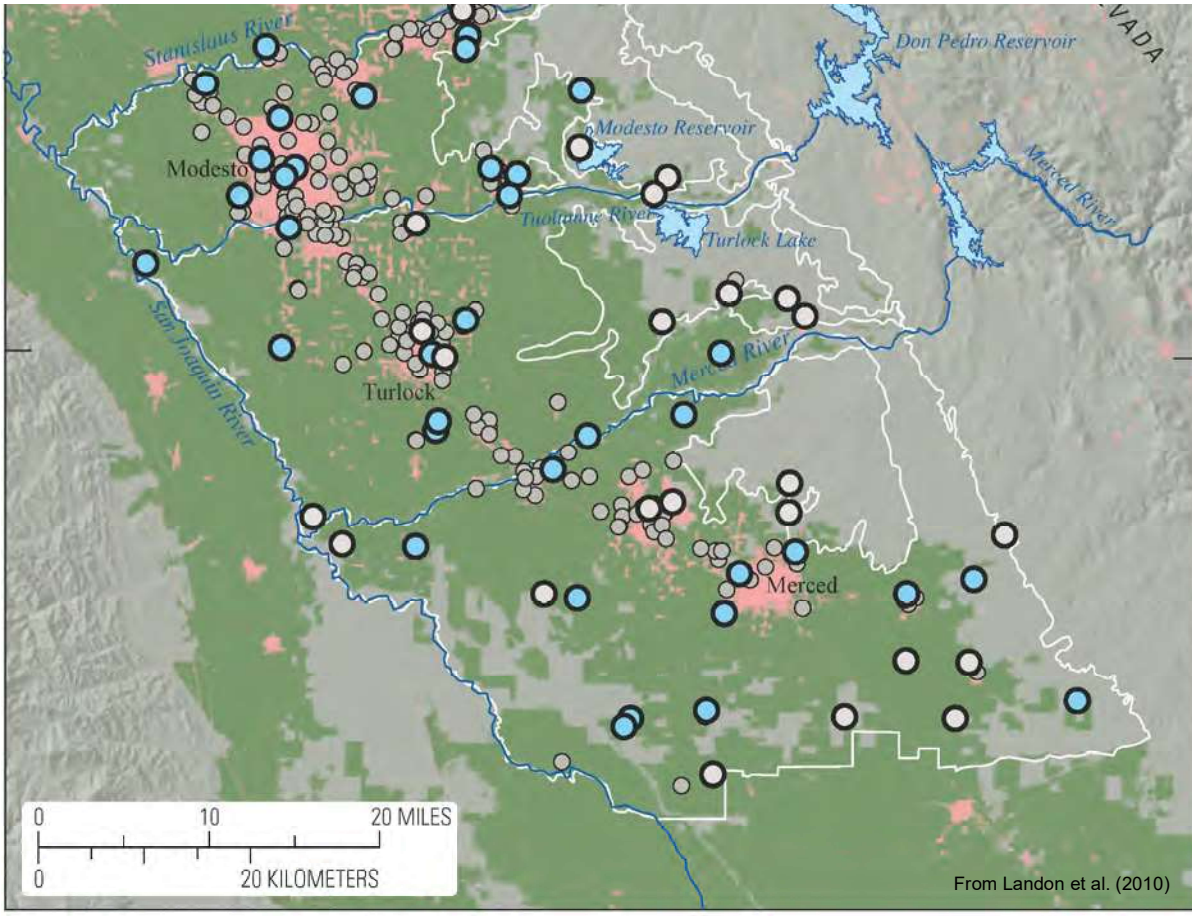
Figure 5-23d
Other Groundwater Quality Data: DBCP/Fumigants



From Landon et al. (2010)

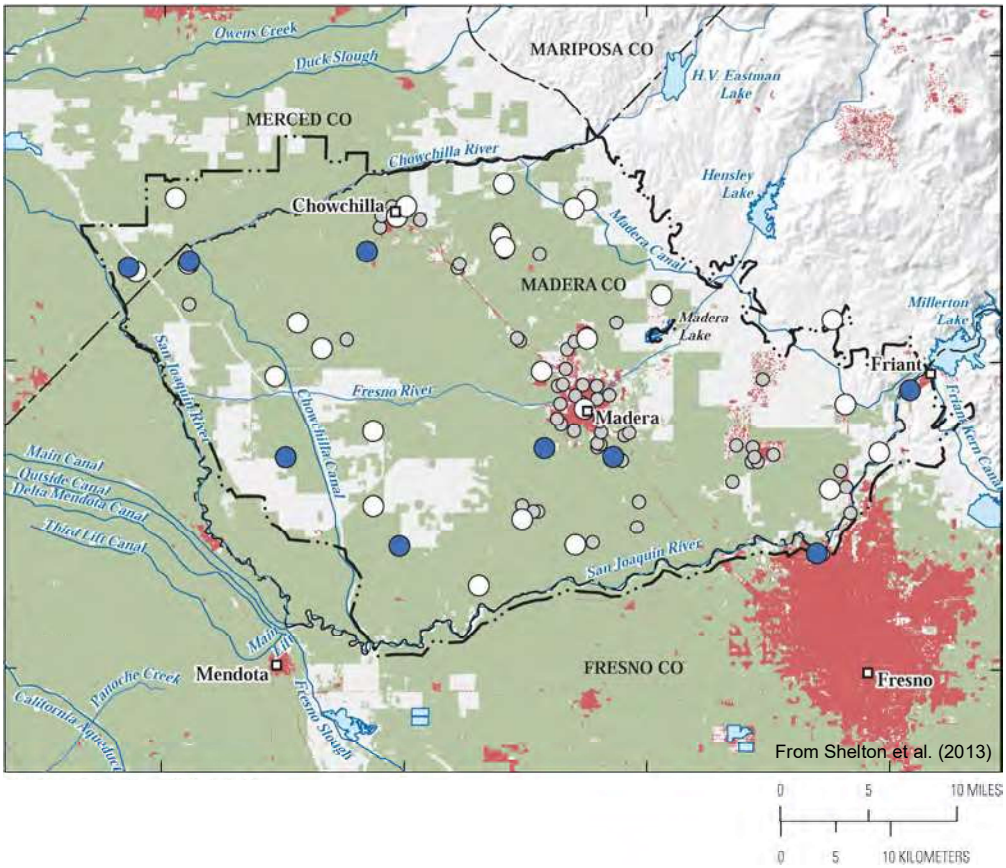
EXPLANATION

USGS GAMA herbicides

- Not detected
- Low (< 0.01 – 0.10 micrograms per liter)

CDPH herbicides

- Not high (< 0.1 micrograms per liter)



From Shelton et al. (2013)

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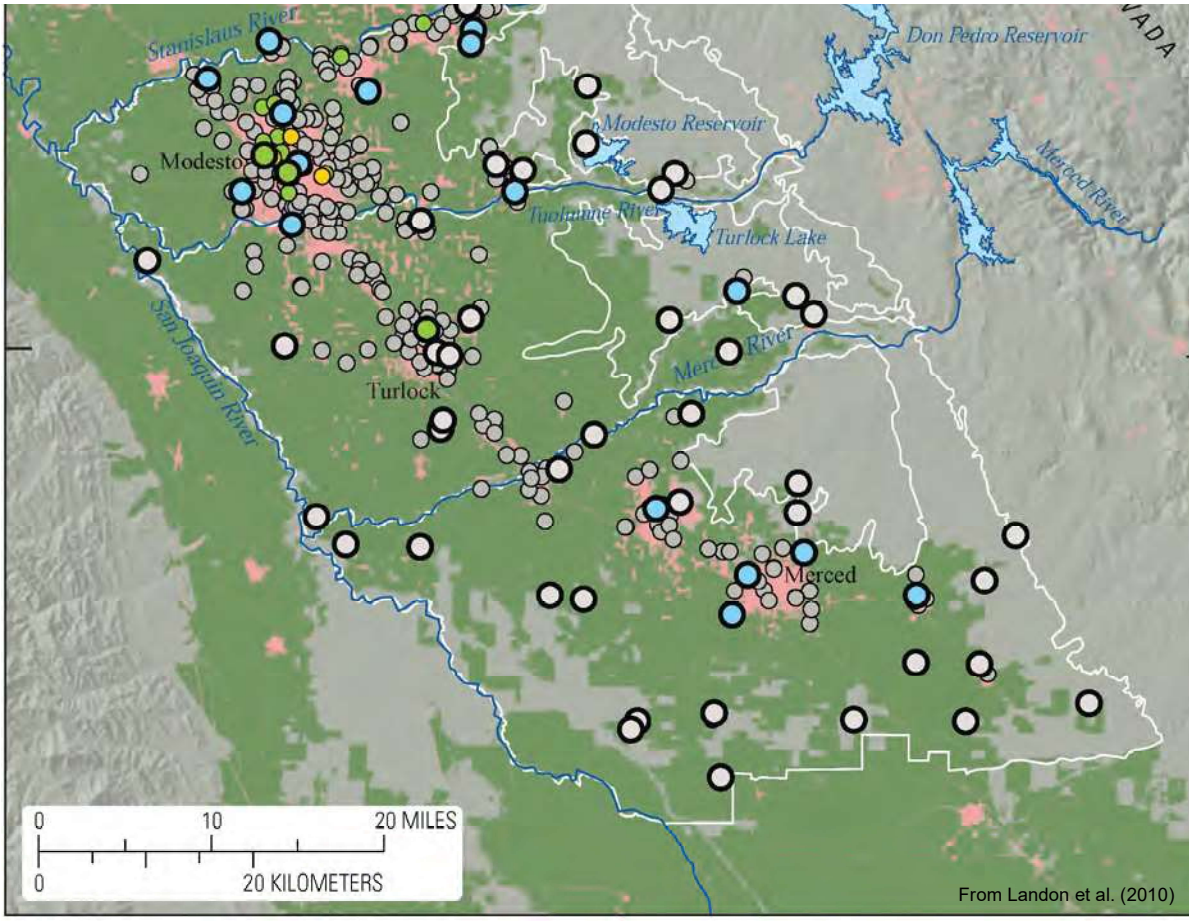
Figure 5-23e

A2.B168

Other Groundwater Quality Data: Herbicides



From Landon et al. (2010)

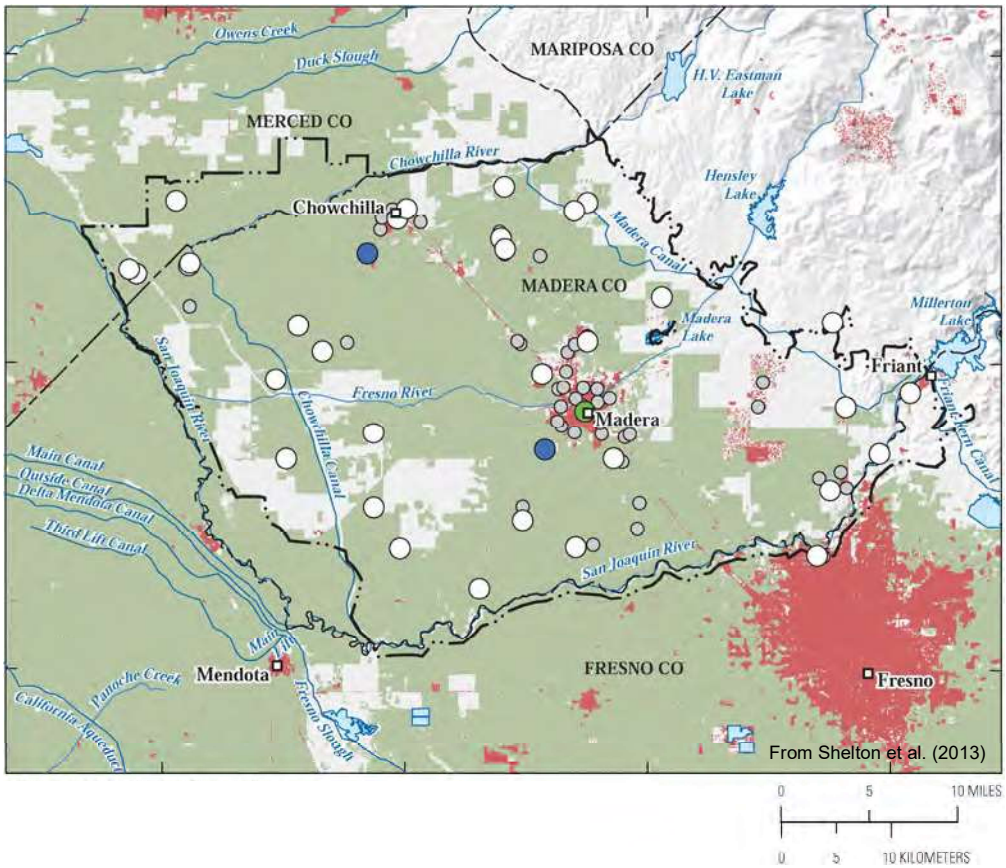
USGS GAMA solvents

- Not detected
- Low (< 0.1)
- Moderate (> 0.1 – 1.0)

CDPH solvents

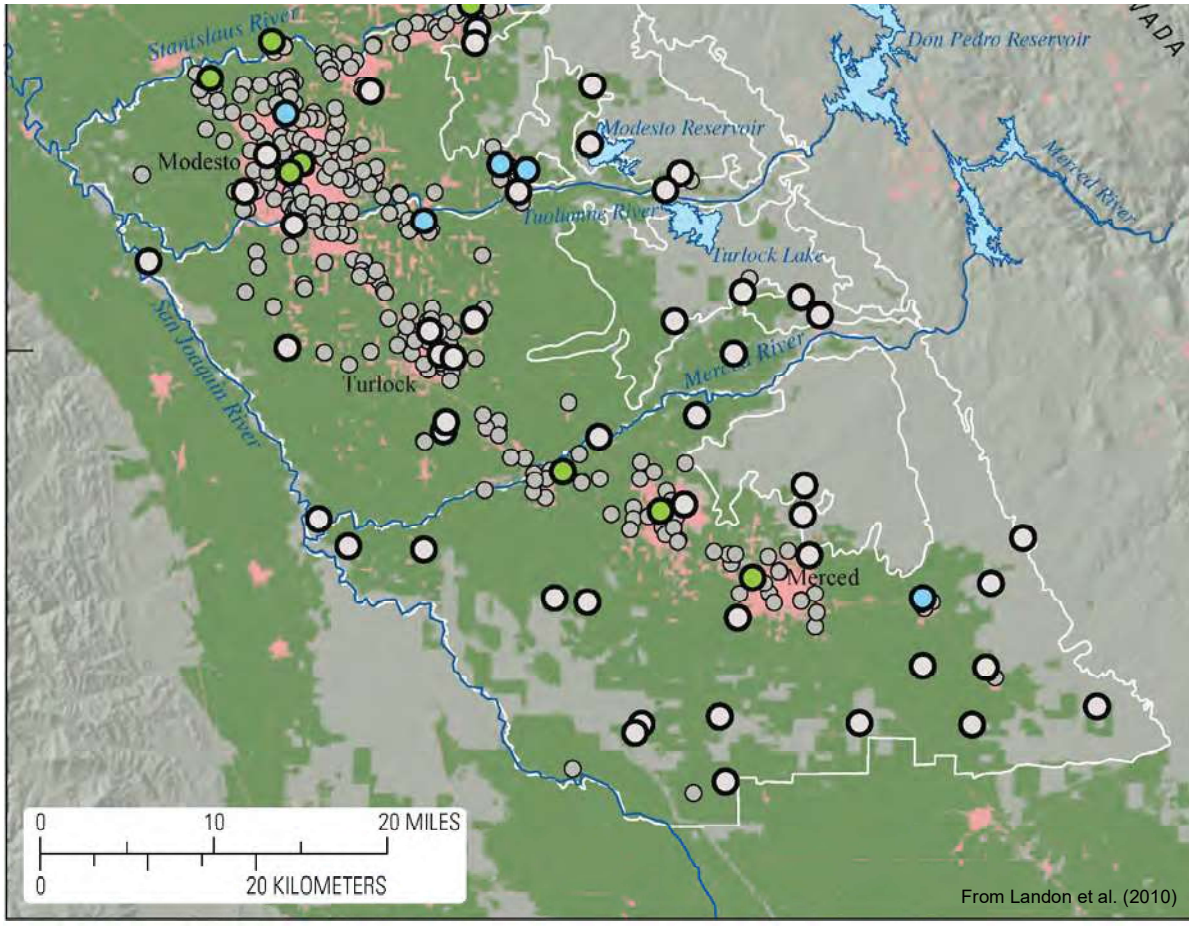
- Low or not detected (< 0.1)
- Moderate (0.1 – 1.0)
- High (> 1.0)

Solvents include:
tetrachloroethylene (PCE)
carbon tetrachloride
trichloroethylene (TCE)
dichloromethane
dibromomethane
cis-1,2-dichloroethene
n-propylbenzene



From Shelton et al. (2013)

Figure 5-23f
Other Groundwater Quality Data: Solvents



From Landon et al. (2010)

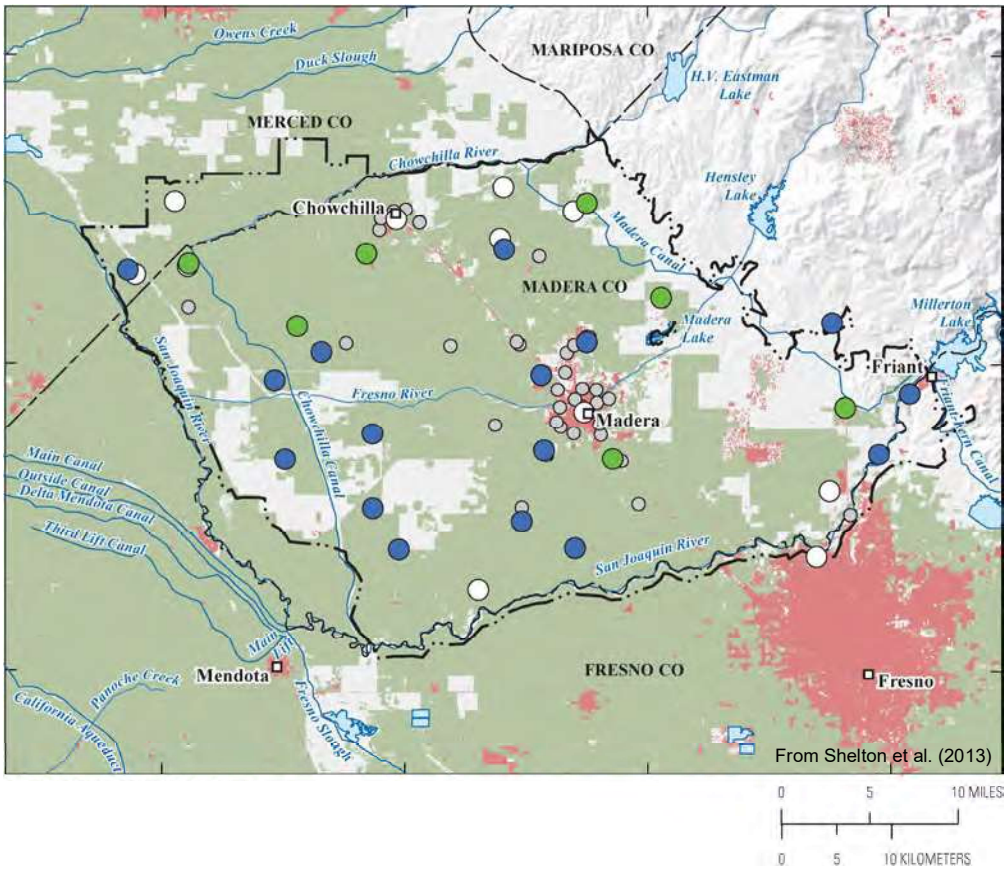
EXPLANATION

USGS GAMA perchlorate

- Not detected (< 0.5 micrograms per liter)
- Low (0.5 – 0.6 micrograms per liter)
- Moderate (0.6 – 1.5 micrograms per liter)

CDPH perchlorate

- Not detected (< 4.0 micrograms per liter)



From Shelton et al. (2013)

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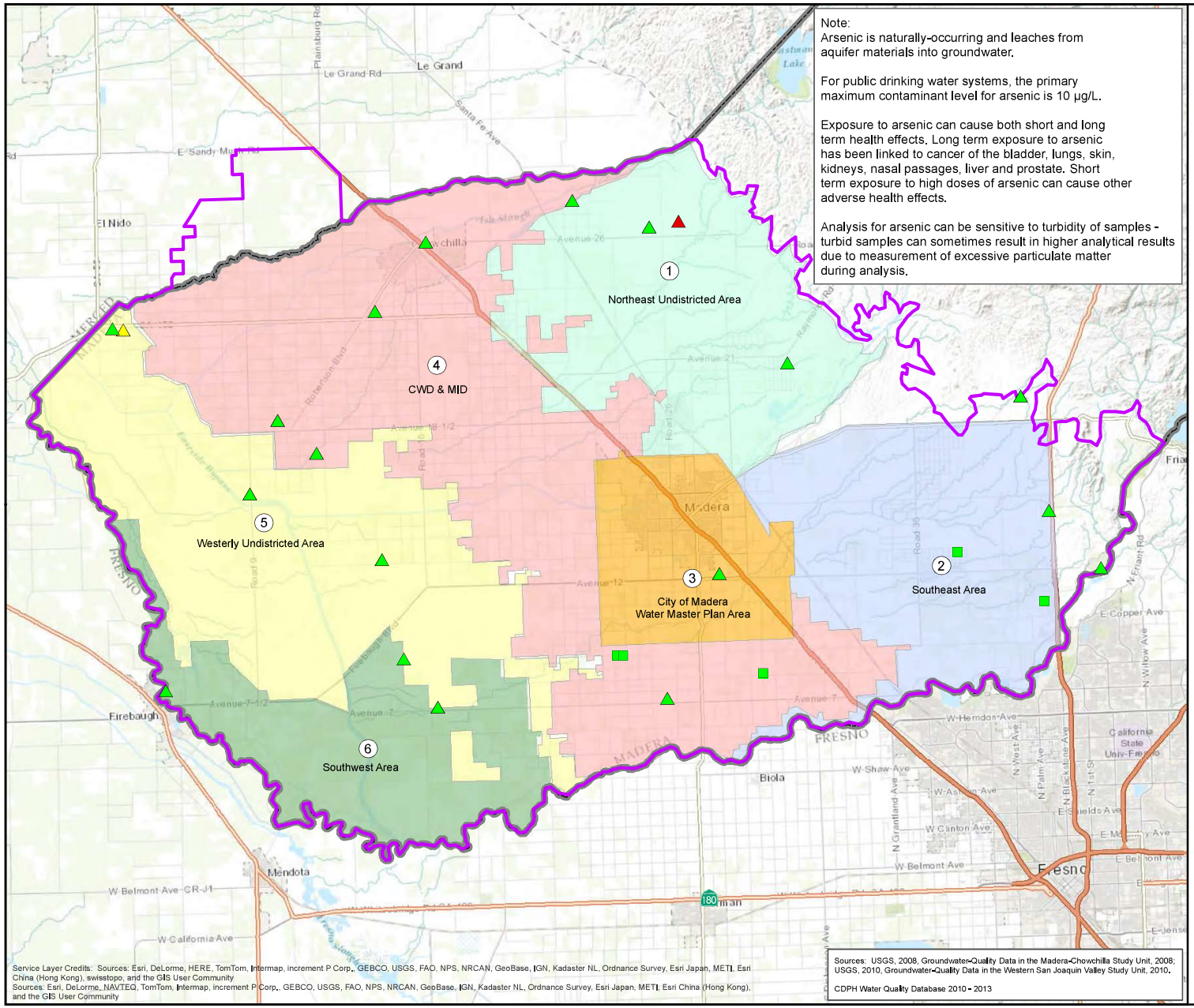
Figure 5-23g

A2.1-170

Other Groundwater Quality Data: Perchlorate

MAP OF ARSENIC CONCENTRATION IN SHALLOW WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Arsenic (µg/L) in City Wells < 400 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in County Wells < 400 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in USGS GAMA Wells < 400 feet

- < 5
- 5 - 10
- > 10

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. The represented wells may have different sanitary seal depths and perforation intervals and therefore may represent unique water quality or composite water quality of the shallow aquifers.

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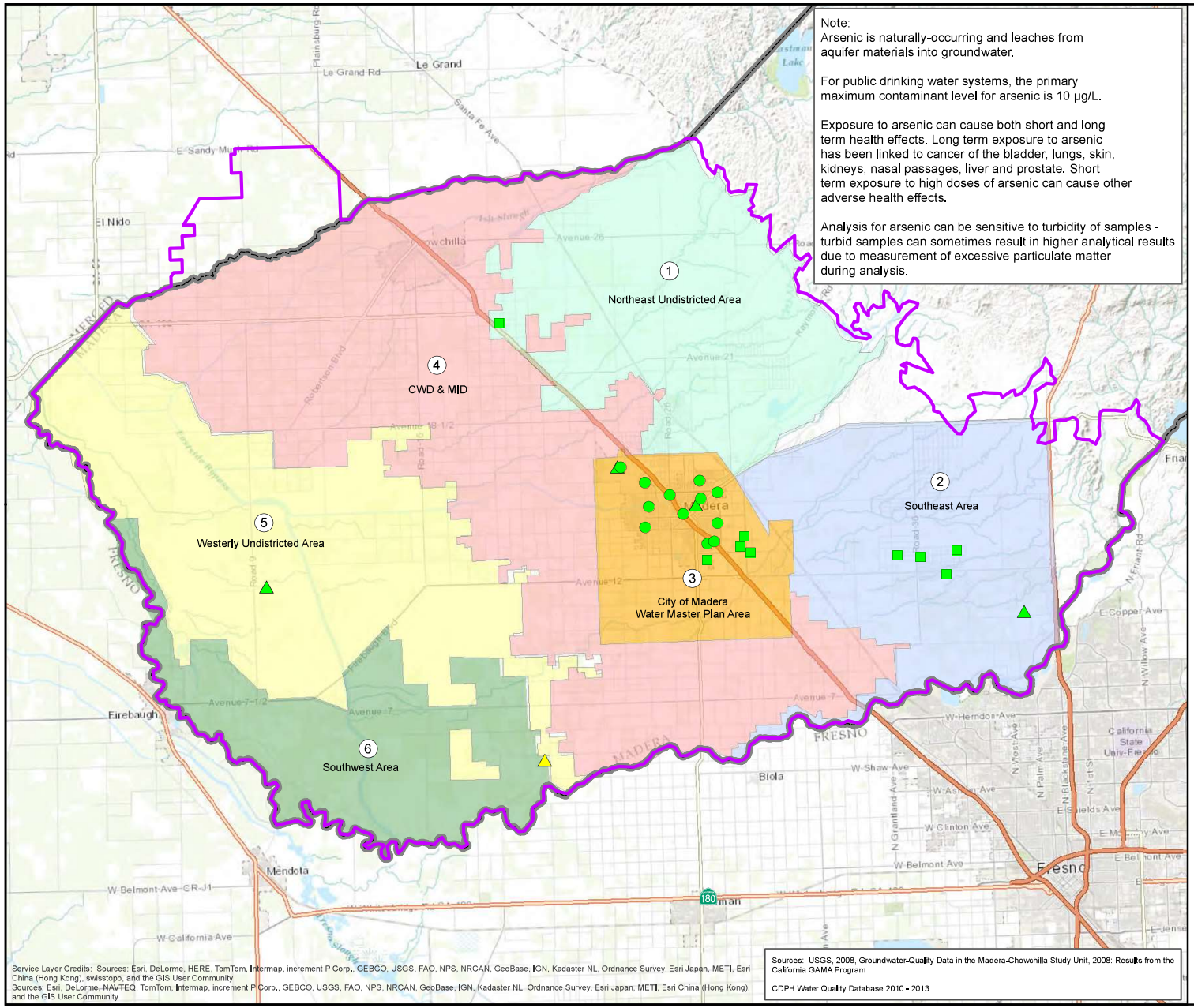

MAP OF ARSENIC CONCENTRATION IN INTERMEDIATE WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Arsenic (µg/L) in City Wells 400 - 600 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in County Wells 400 - 600 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in USGS GAMA Wells 400 - 600 feet

- < 5
- 5 - 10
- > 10

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore may represent composite water quality across two or more aquifers.

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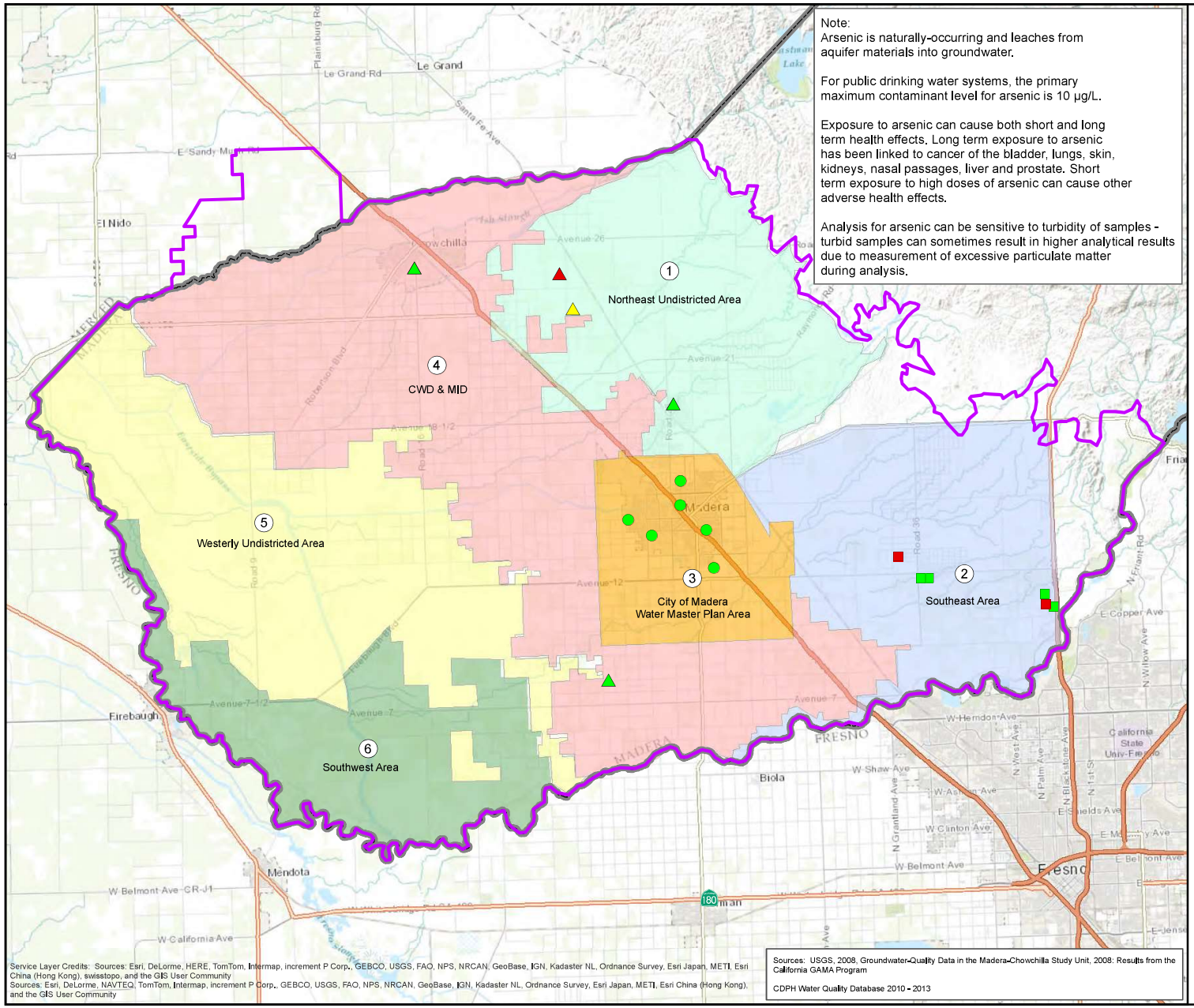
MAP OF ARSENIC CONCENTRATION IN DEEP WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Arsenic (µg/L) in City Wells > 600 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in County Wells > 600 feet

- < 5
- 5 - 10
- > 10

Arsenic (µg/L) in USGS GAMA Wells > 600 feet

- < 5
- 5 - 10
- > 10

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore may represent composite water quality across two or more aquifers.

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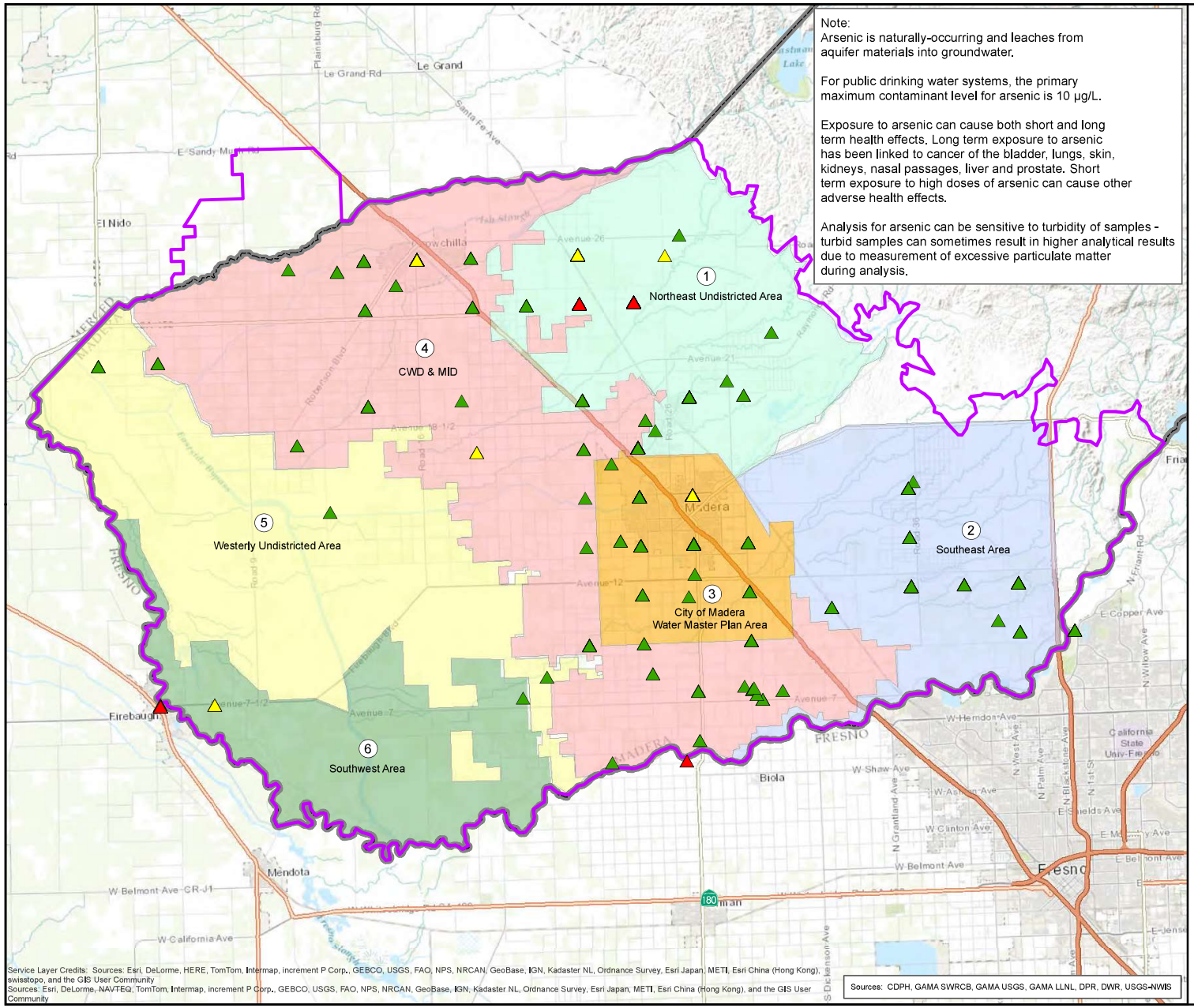

MAP OF ARSENIC CONCENTRATION IN WELLS OF UNKNOWN DEPTH

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Arsenic (µg/L) in Other USGS GAMA Wells

- < 5
- 5 - 10
- > 10
- Groundwater Management Plan Boundary
- Madera County Boundary

Note: Well construction records were not available for these wells. Some wells may have screen perforations that connect two or more aquifers and may therefore represent composite water quality.

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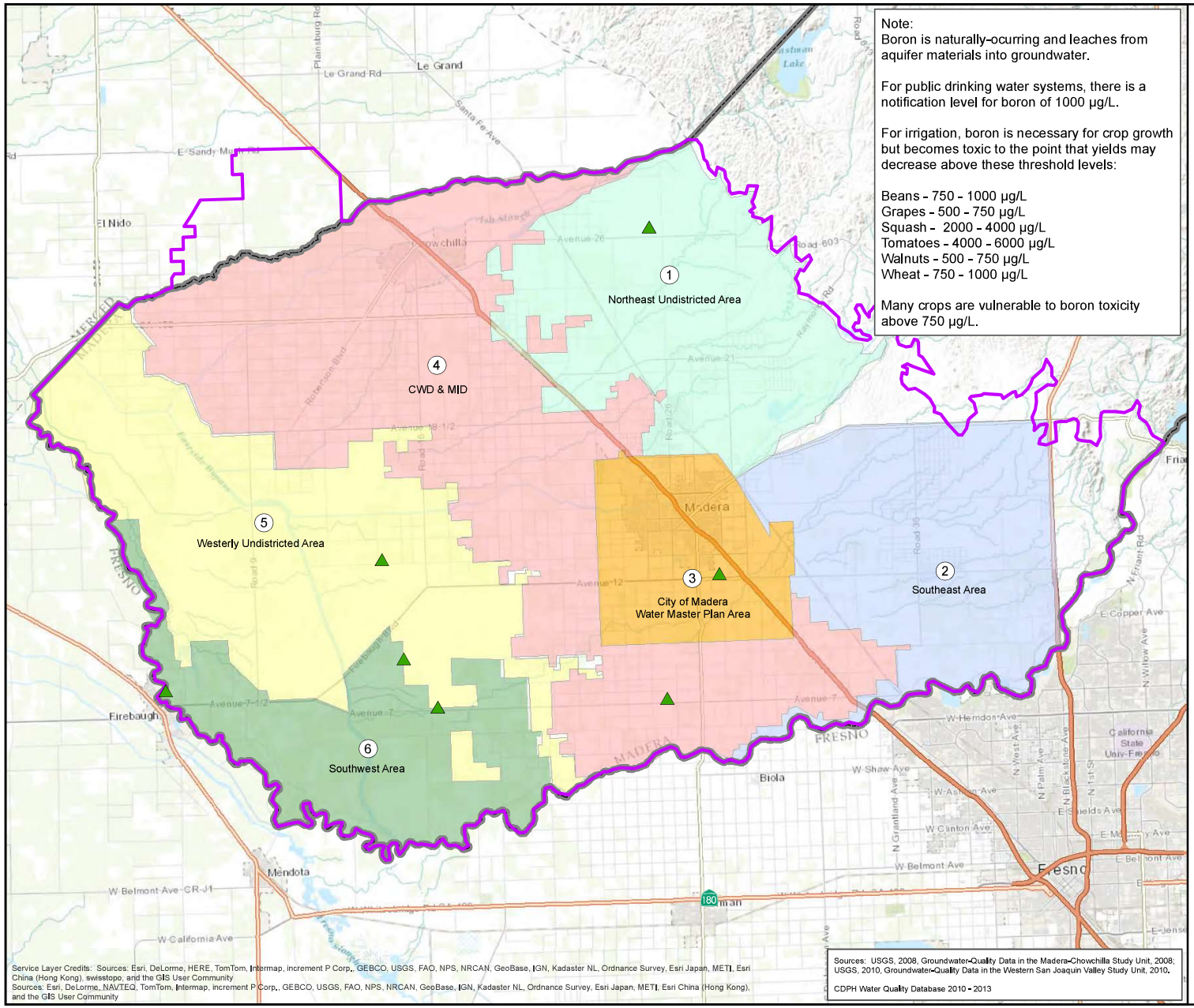

MAP OF BORON CONCENTRATION IN SHALLOW WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Boron (µg/L) in City Wells < 400 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in County Wells < 400 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in USGS GAMA Wells < 400 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Groundwater Management Plan Boundary

Madera County Boundary

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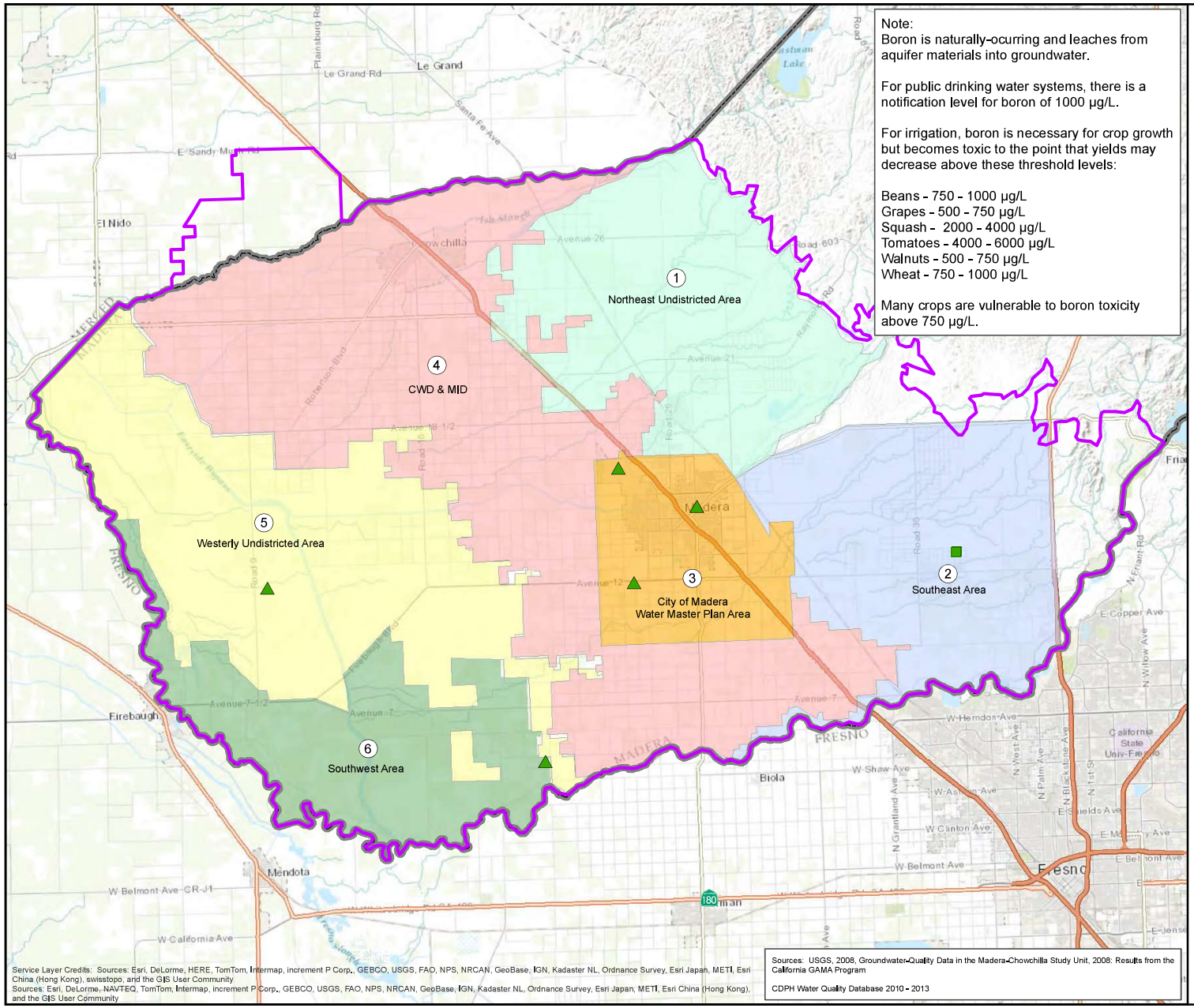
MAP OF BORON CONCENTRATION IN INTERMEDIATE WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



Note:
Boron is naturally-ocurring and leaches from aquifer materials into groundwater.

For public drinking water systems, there is a notification level for boron of 1000 µg/L.

For irrigation, boron is necessary for crop growth but becomes toxic to the point that yields may decrease above these threshold levels:

Beans - 750 - 1000 µg/L
Grapes - 500 - 750 µg/L
Squash - 2000 - 4000 µg/L
Tomatoes - 4000 - 6000 µg/L
Walnuts - 500 - 750 µg/L
Wheat - 750 - 1000 µg/L

Many crops are vulnerable to boron toxicity above 750 µg/L.

NORTH

0 2 4
MILES

Boron (µg/L) in County Wells 400 - 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in City Wells 400 - 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in USGS GAMA Wells 400 - 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore may represent composite water quality across two or more aquifers.

Service Layer Credits: Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

Sources: USGS, 2008, Groundwater-Quality Data in the Madera-Chowchilla Study Unit, 2008: Results from the California GAMA Program

CDPH Water Quality Database 2010 - 2013

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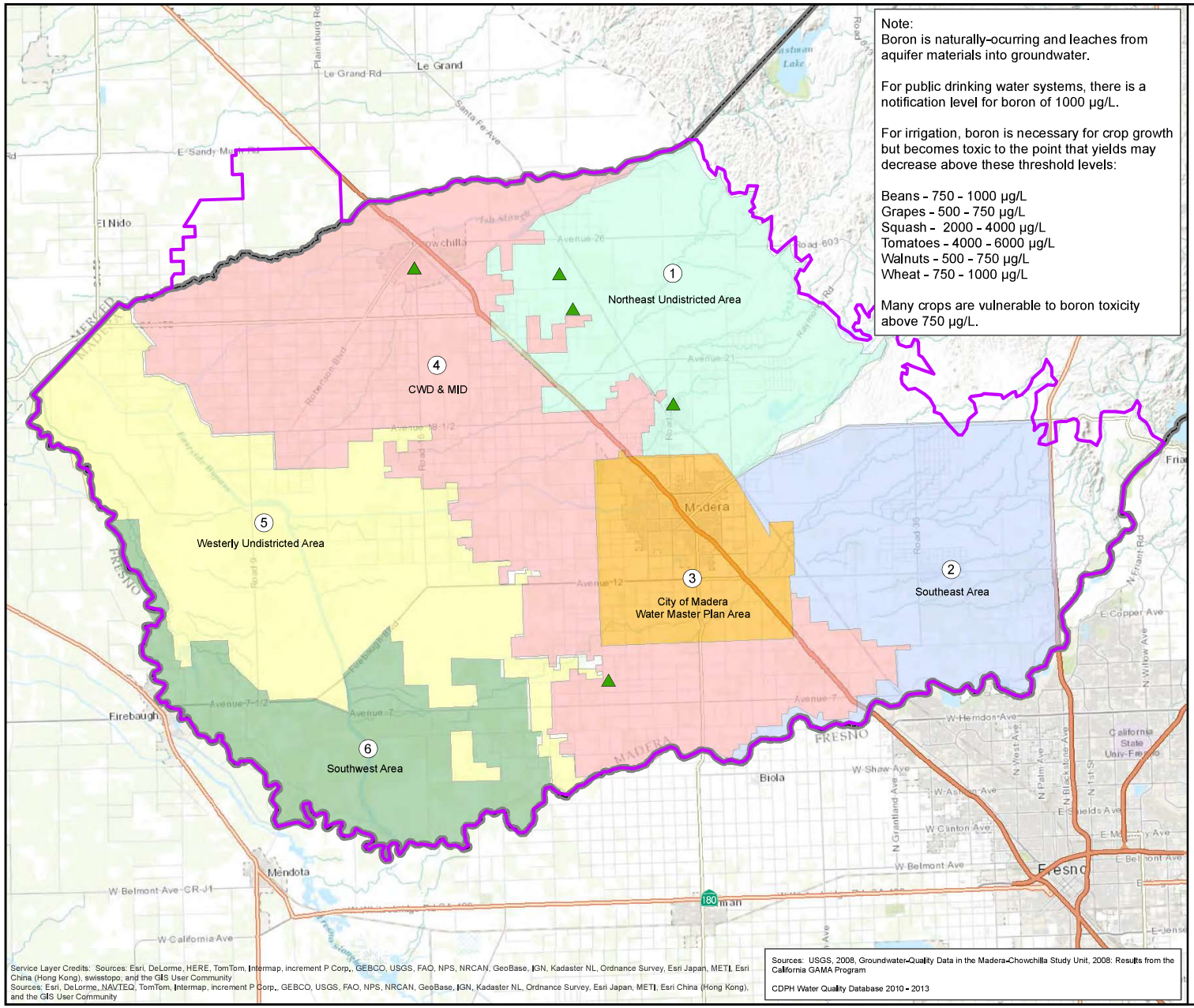

MAP OF BORON CONCENTRATION IN DEEP WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Boron (µg/L) in City Wells > 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in County Wells > 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Boron (µg/L) in USGS GAMA Wells > 600 feet

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore may represent composite water quality across two or more aquifers.

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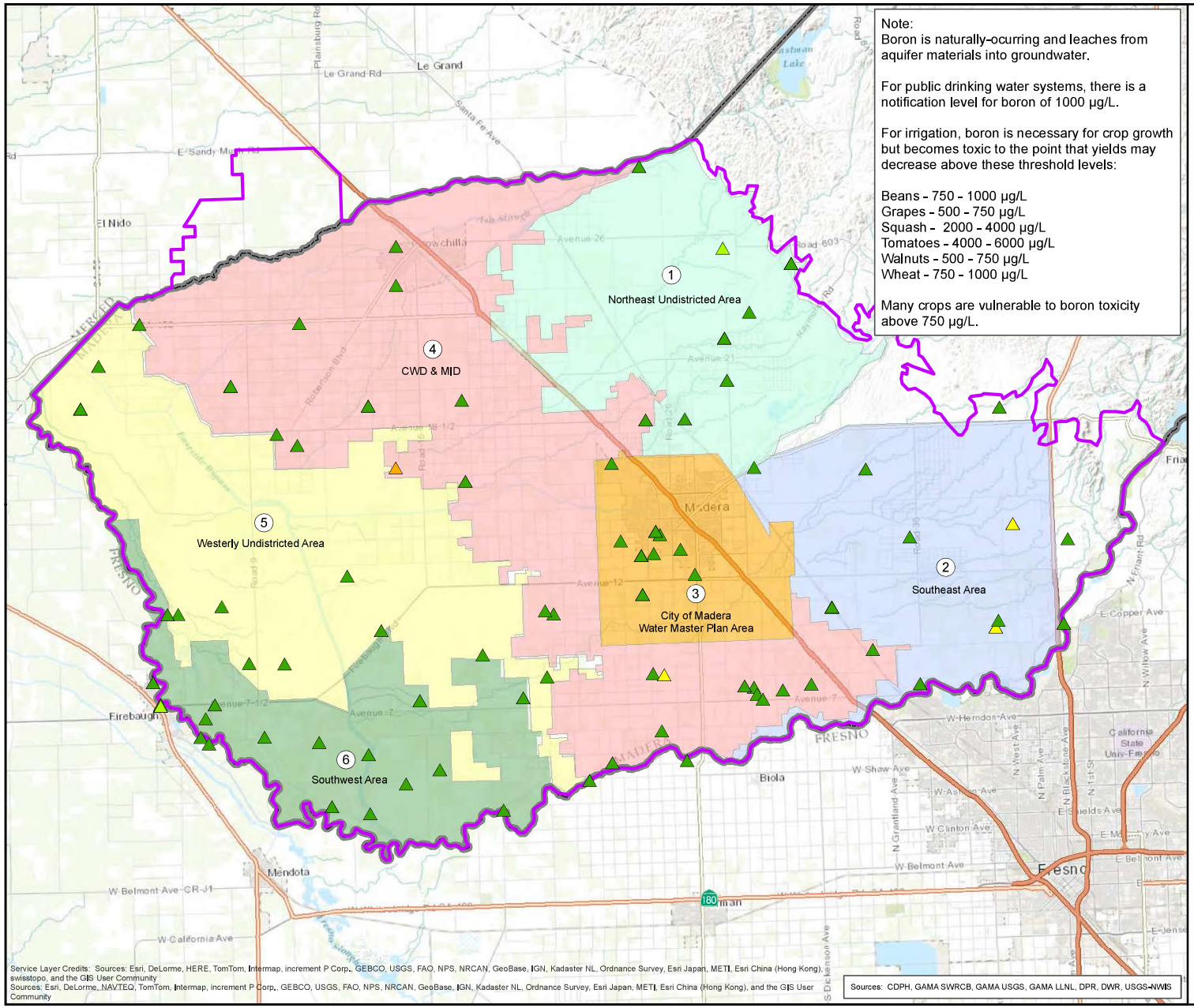

MAP OF BORON CONCENTRATION IN WELLS OF UNKNOWN DEPTH

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Boron (µg/L) in Other USGS GAMA Wells

- < 500
- 500 - 750
- 750 - 1000
- 1000 - 2000
- > 2000
- Groundwater Management Plan Boundary
- Madera County Boundary

Note: Well construction records were not available for these wells. Some wells may have screen perforations that connect two or more aquifers and may therefore represent composite water quality.

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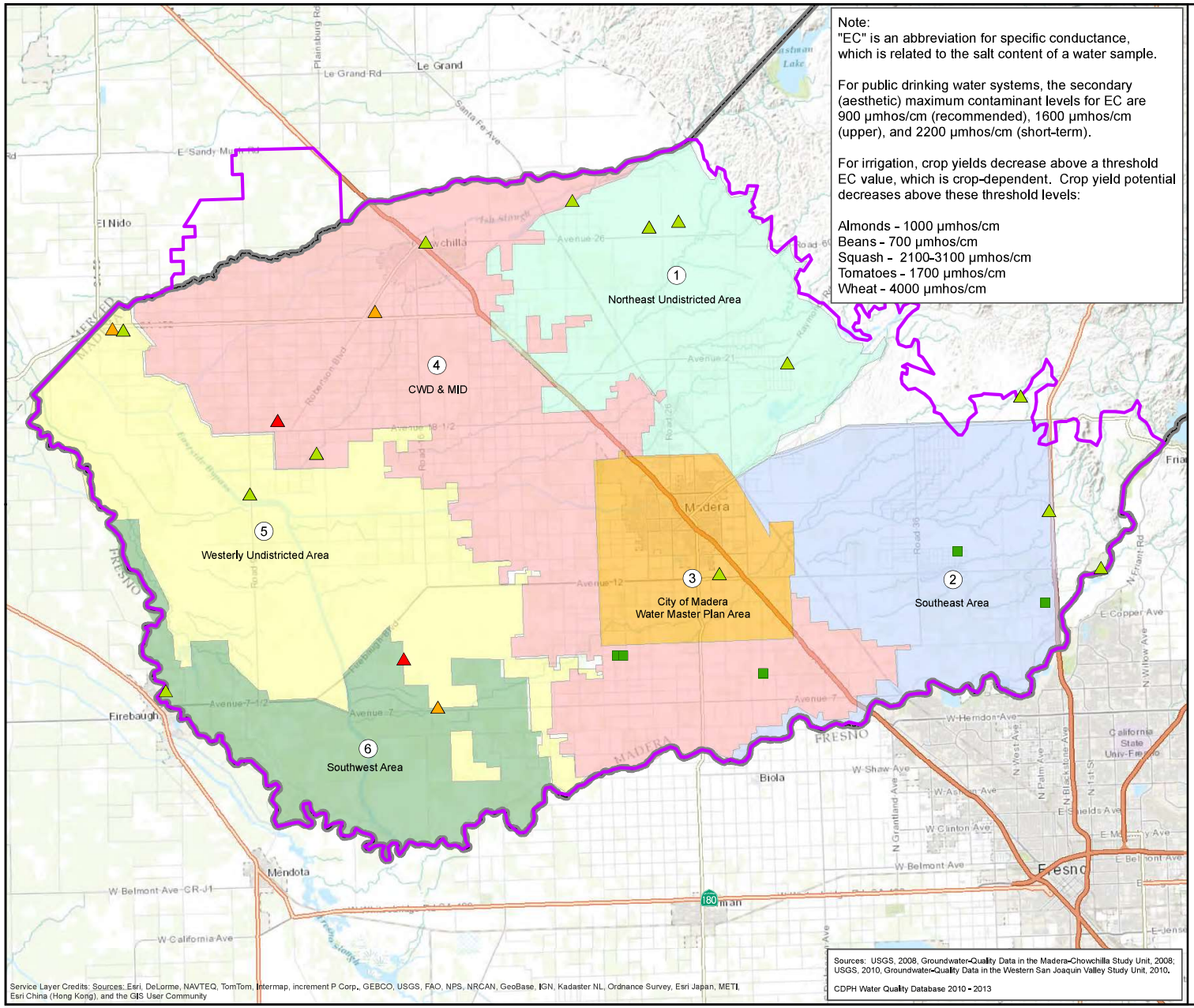
MAP OF SPECIFIC CONDUCTANCE IN SHALLOW WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

EC (µmhos/cm) in County Wells < 400 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in City Wells < 400 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in USGS GAMA Wells < 400 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

Groundwater Management Plan Boundary

Madera County Boundary

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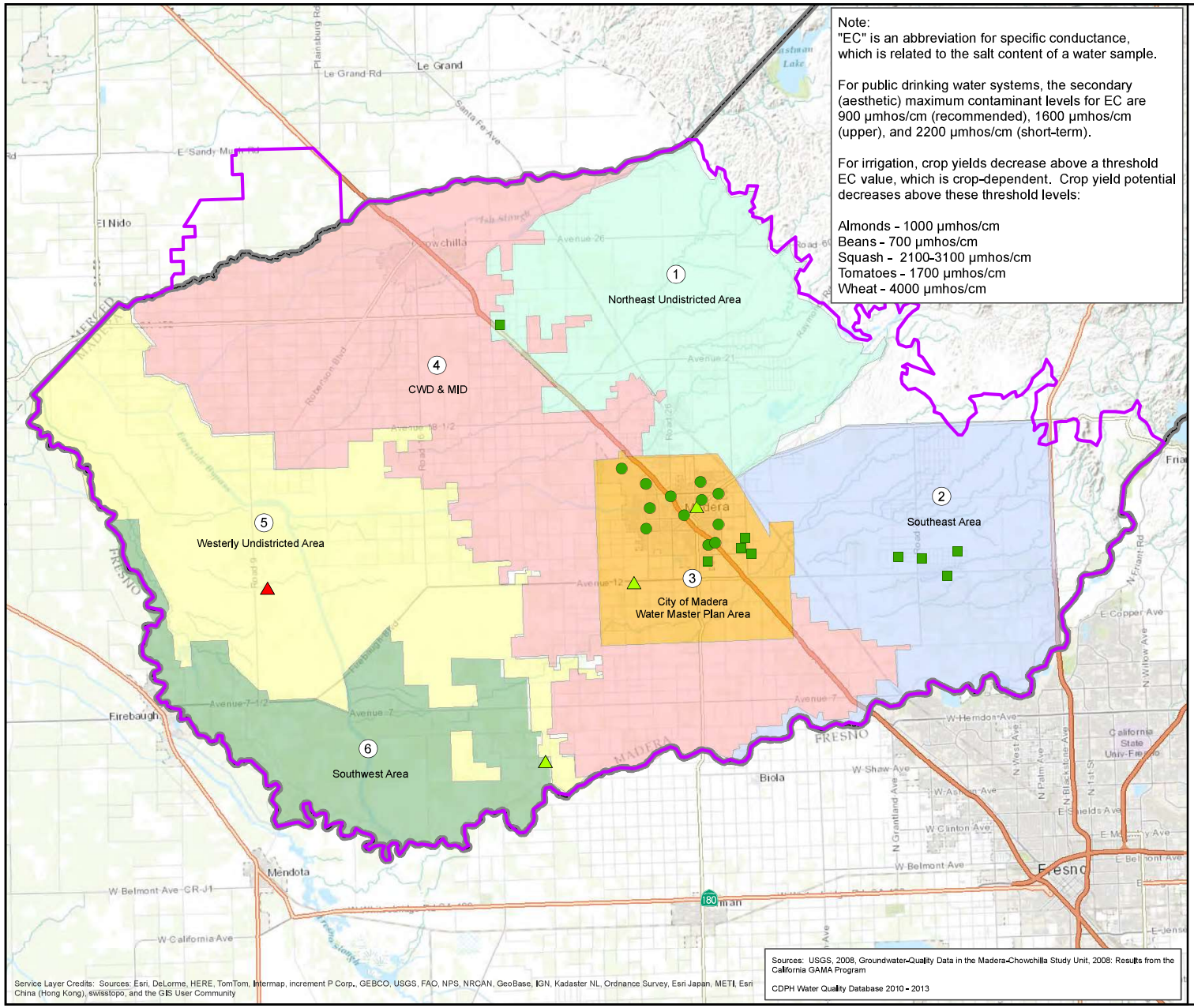

MAP OF SPECIFIC CONDUCTANCE IN INTERMEDIATE WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

EC (µmhos/cm) in City Wells 400 - 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in County Wells 400 - 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in USGS GAMA Wells 400 - 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore represent composite water quality across two or more aquifers.

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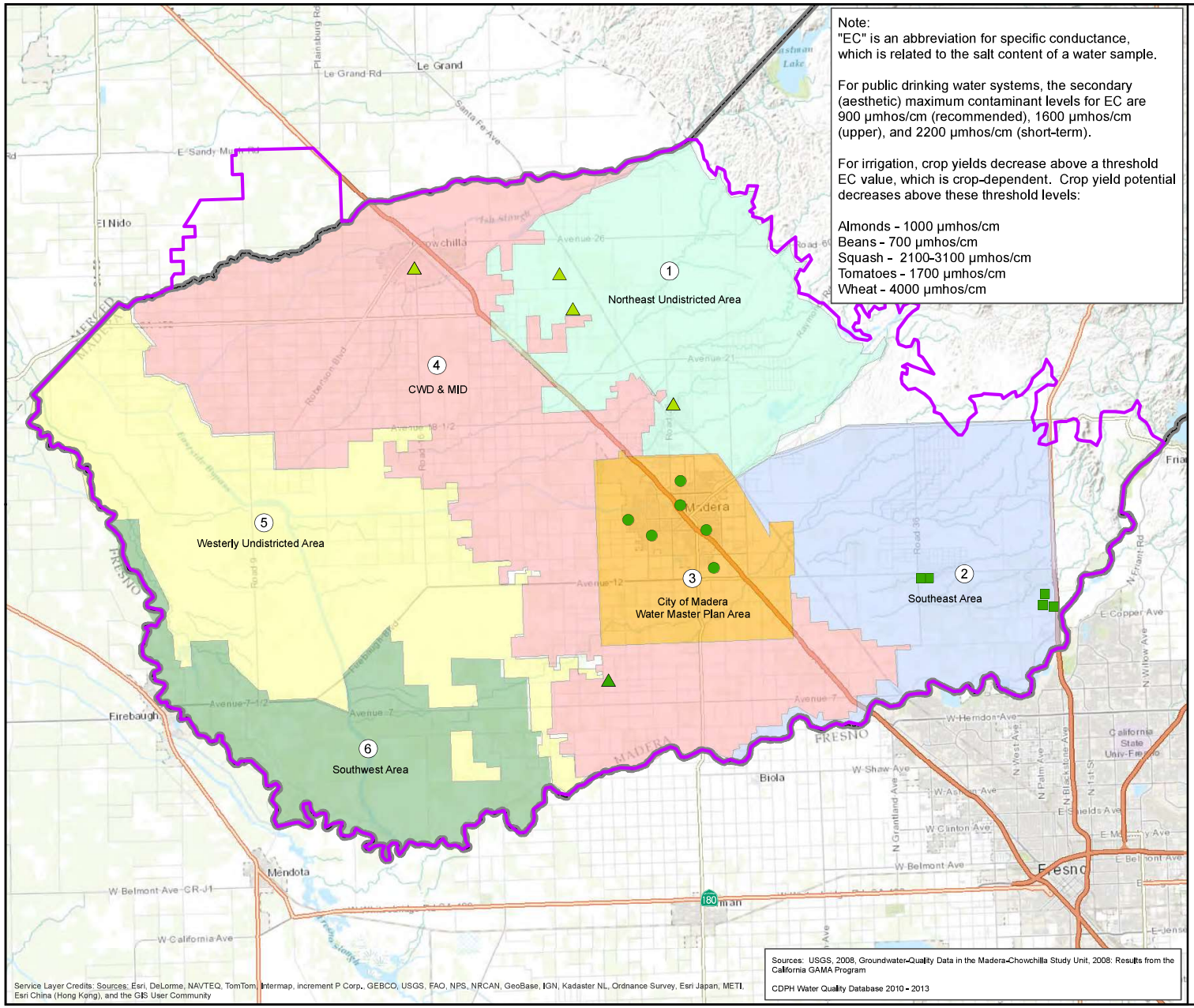

MAP OF SPECIFIC CONDUCTANCE IN DEEP WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

EC (µmhos/cm) in City Wells > 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in County Wells > 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

EC (µmhos/cm) in USGS GAMA Wells > 600 feet

- < 600
- 600 - 900
- 900 - 1600
- > 1600

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore may represent composite water quality across two or more aquifers.

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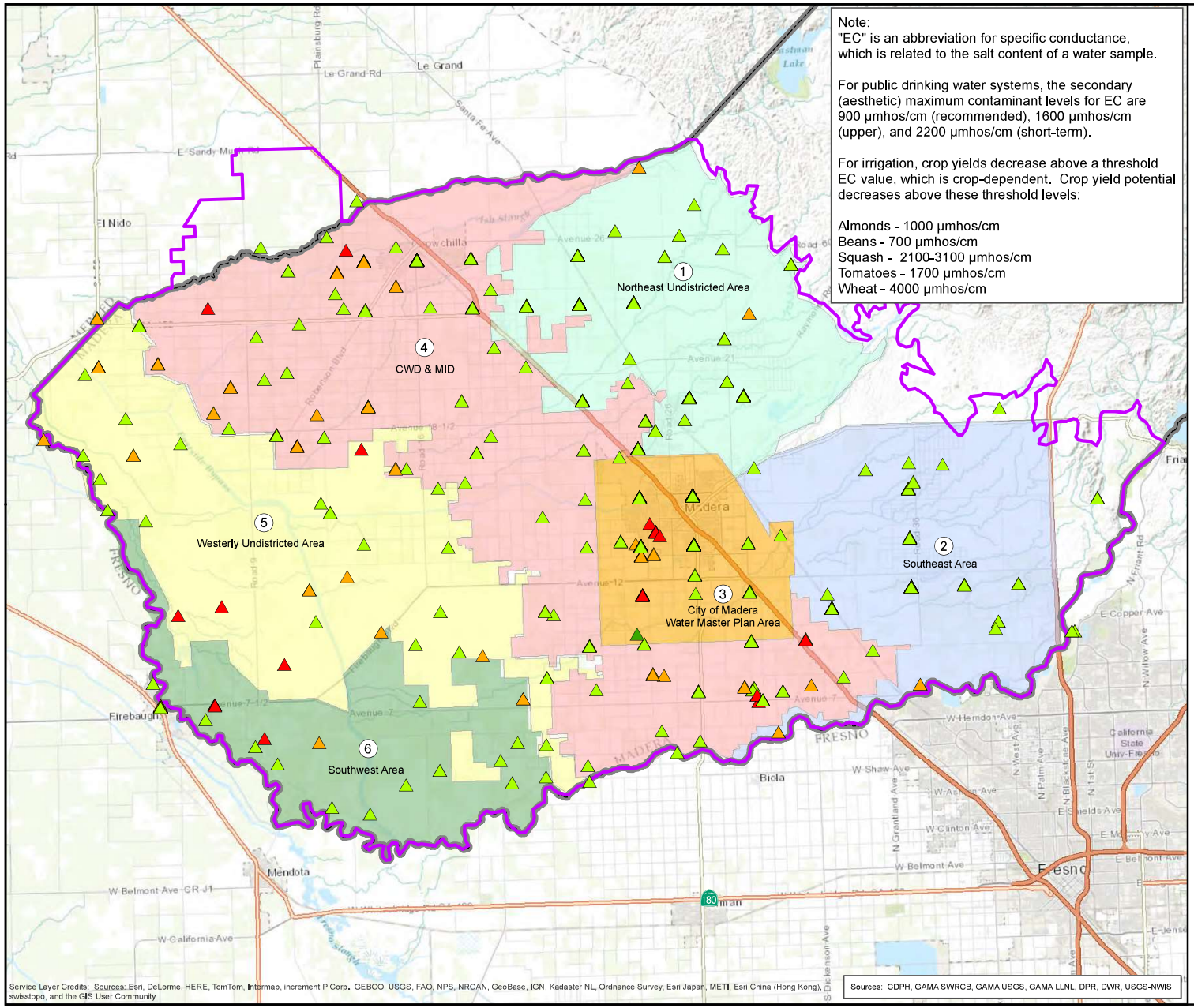

MAP OF SPECIFIC CONDUCTANCE IN WELLS OF UNKNOWN DEPTH

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

EC (µmhos/cm) in Other USGS GAMA Wells

- < 600
- 600 - 900
- 900 - 1600
- > 1600
- Groundwater Management Plan Boundary
- Madera County Boundary

Note: Well construction records were not available for these wells. Some wells may have screen perforations that connect two or more aquifers and may therefore represent composite water quality.

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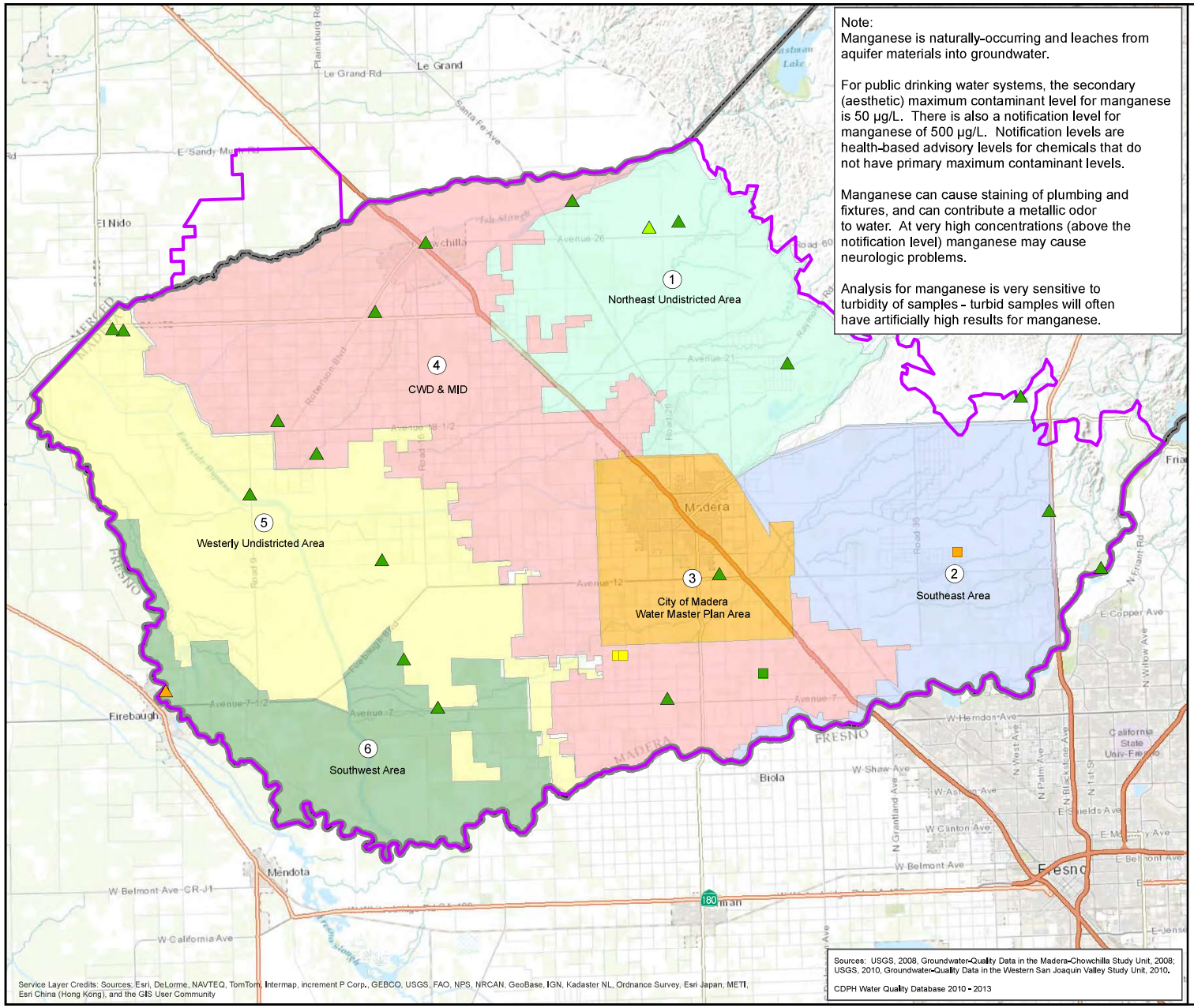

MAP OF MANGANESE CONCENTRATION IN SHALLOW WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Manganese (µg/L) in City Wells < 400 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in County Wells < 400 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in USGS GAMA Wells < 400 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Groundwater Management Plan Boundary

Madera County Boundary

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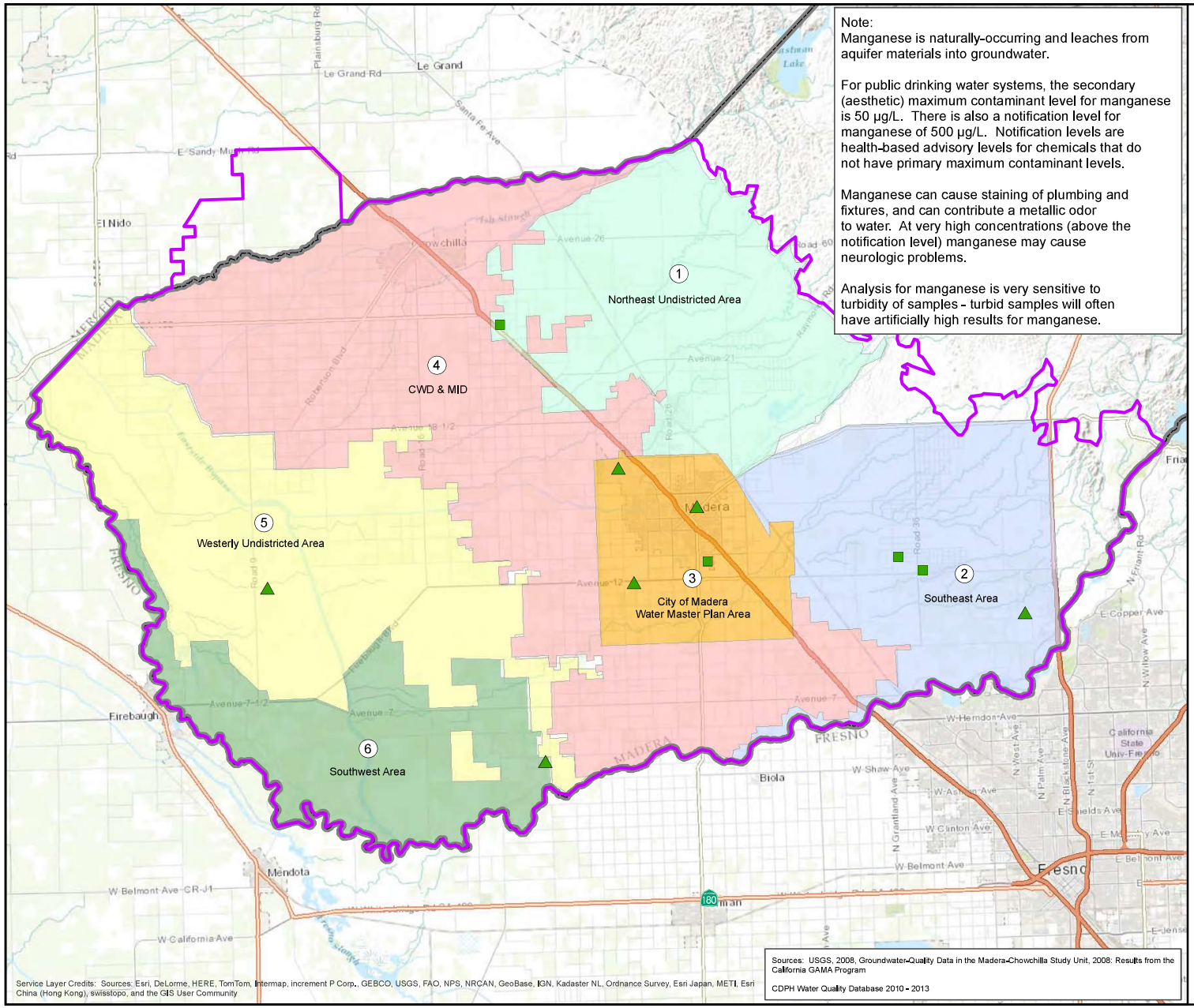
MAP OF MANGANESE CONCENTRATION IN INTERMEDIATE WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Manganese (µg/L) in City Wells 400 - 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in County Wells 400 - 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in USGS GAMA Wells 400 - 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore represent composite water quality across two or more aquifers.

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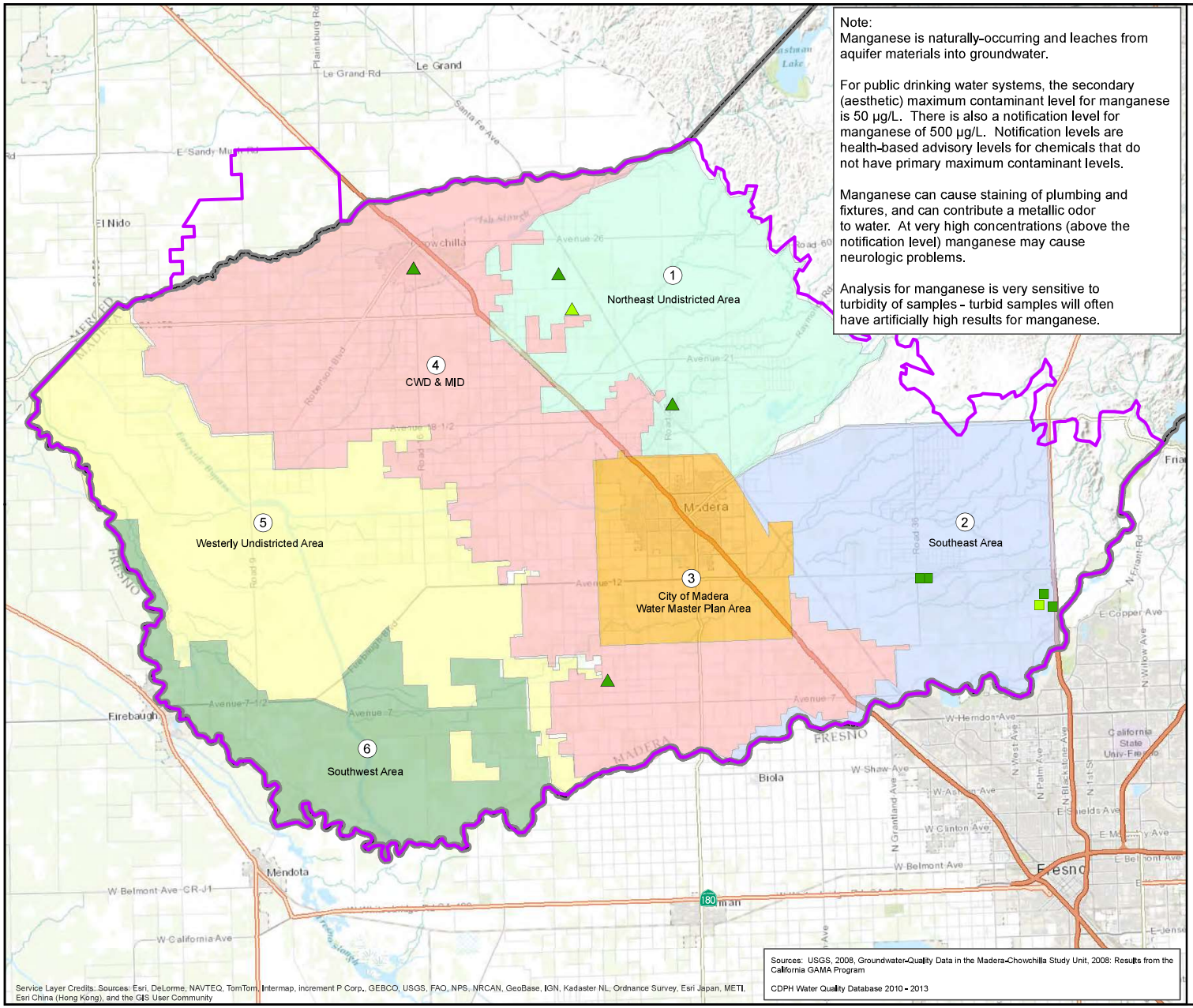
MAP OF MANGANESE CONCENTRATION IN DEEP WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Manganese (µg/L) in City Wells > 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in County Wells > 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Manganese (µg/L) in USGS GAMA Wells > 600 feet

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore represent composite water quality across two or more aquifers.

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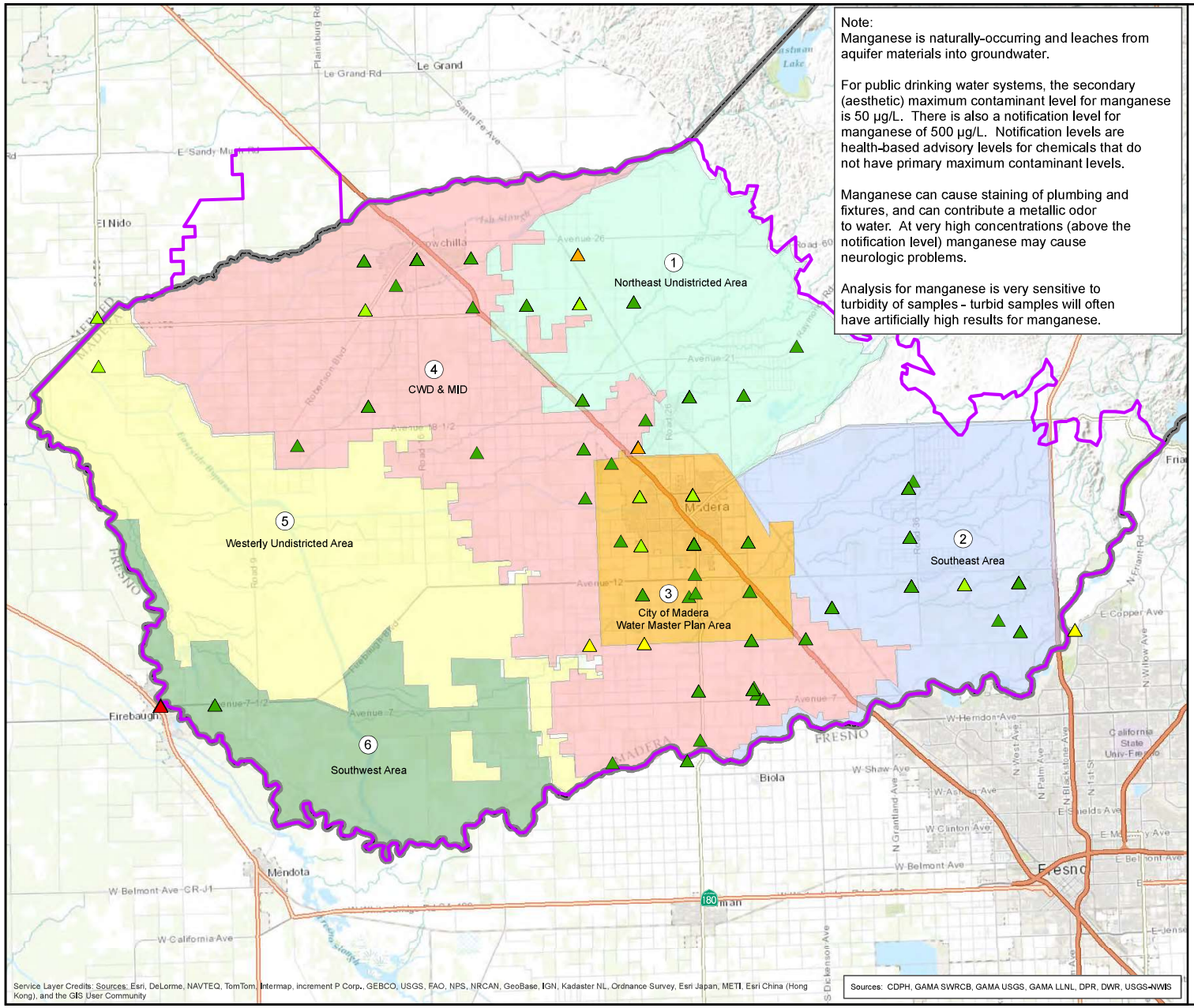

MAP OF MANGANESE CONCENTRATION IN WELLS OF UNKNOWN DEPTH

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Manganese (µg/L) in Other USGS GAMA Wells

- < 25
- 25 - 50
- 50 - 150
- 150 - 500
- > 500
- Groundwater Management Plan Boundary
- Madera County Boundary

Note: Well construction records were not available for these wells. Some wells may have screen perforations that connect two or more aquifers and may therefore represent composite water quality.

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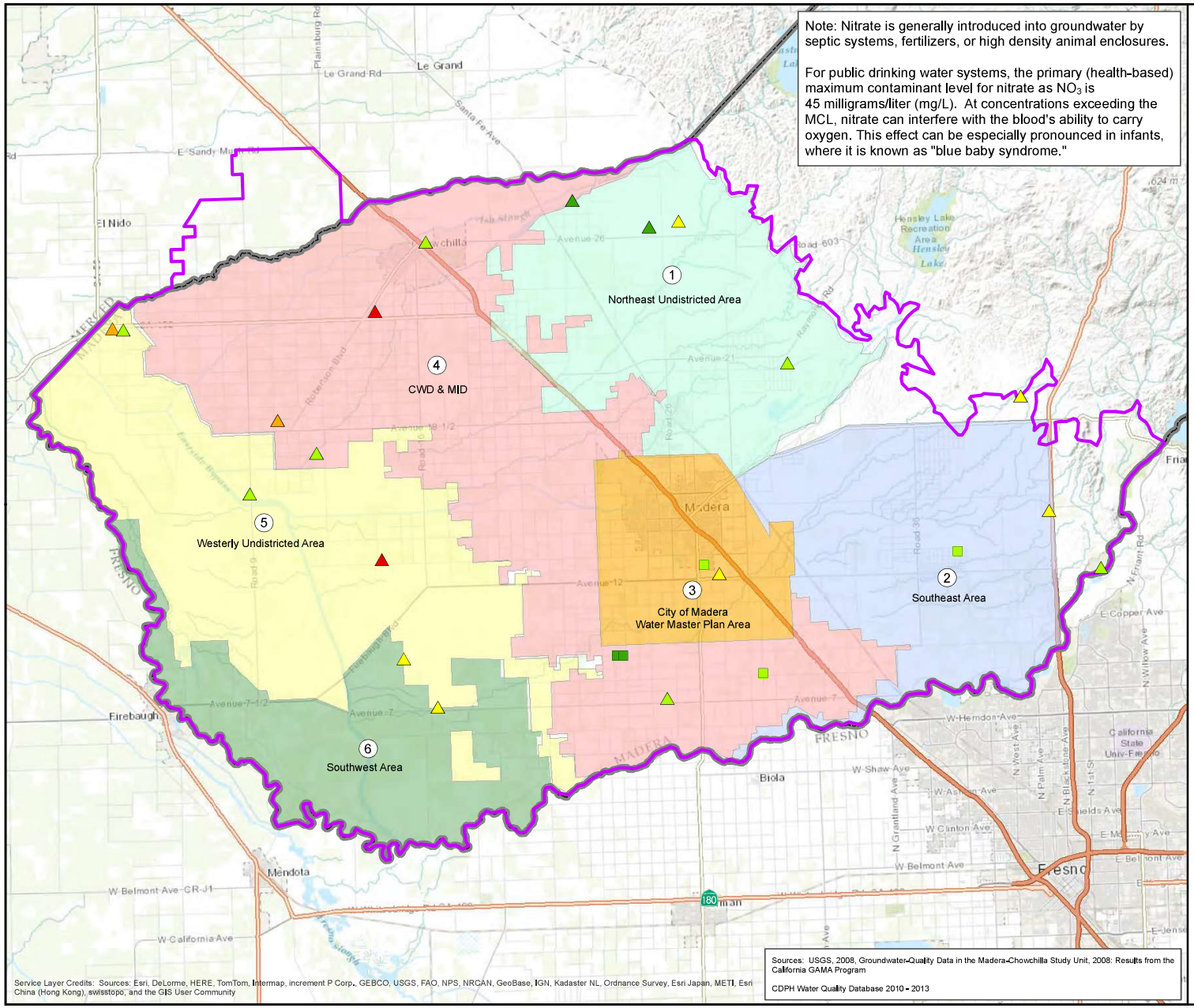

MAP OF NITRATE (AS NO_3) CONCENTRATION IN SHALLOW WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

NORTH

0 2 4
MILES

Nitrate as NO3 (mg/L) in City Wells < 400 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO3 (mg/L) in County Wells < 400 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO3 (mg/L) in USGS GAMA Wells < 400 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Groundwater Management Plan Boundary

Madera County Boundary

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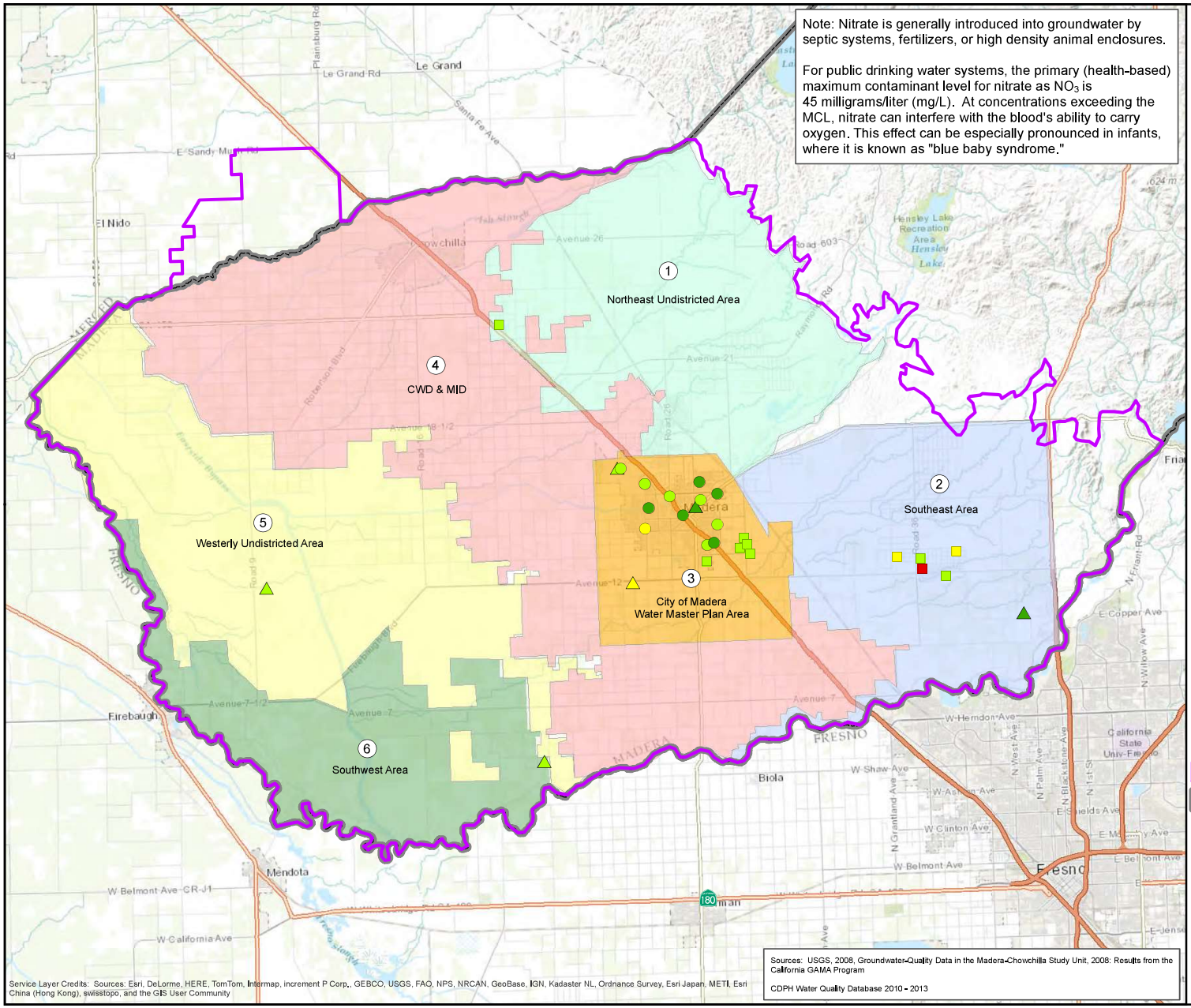
MAP OF NITRATE (AS NO_3) CONCENTRATION IN INTERMEDIATE WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Nitrate as NO_3 (mg/L) in City Wells 400-600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO_3 (mg/L) in County Wells 400-600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO_3 (mg/L) in USGS GAMA Wells 400-600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore represent composite water quality across two or more aquifers.

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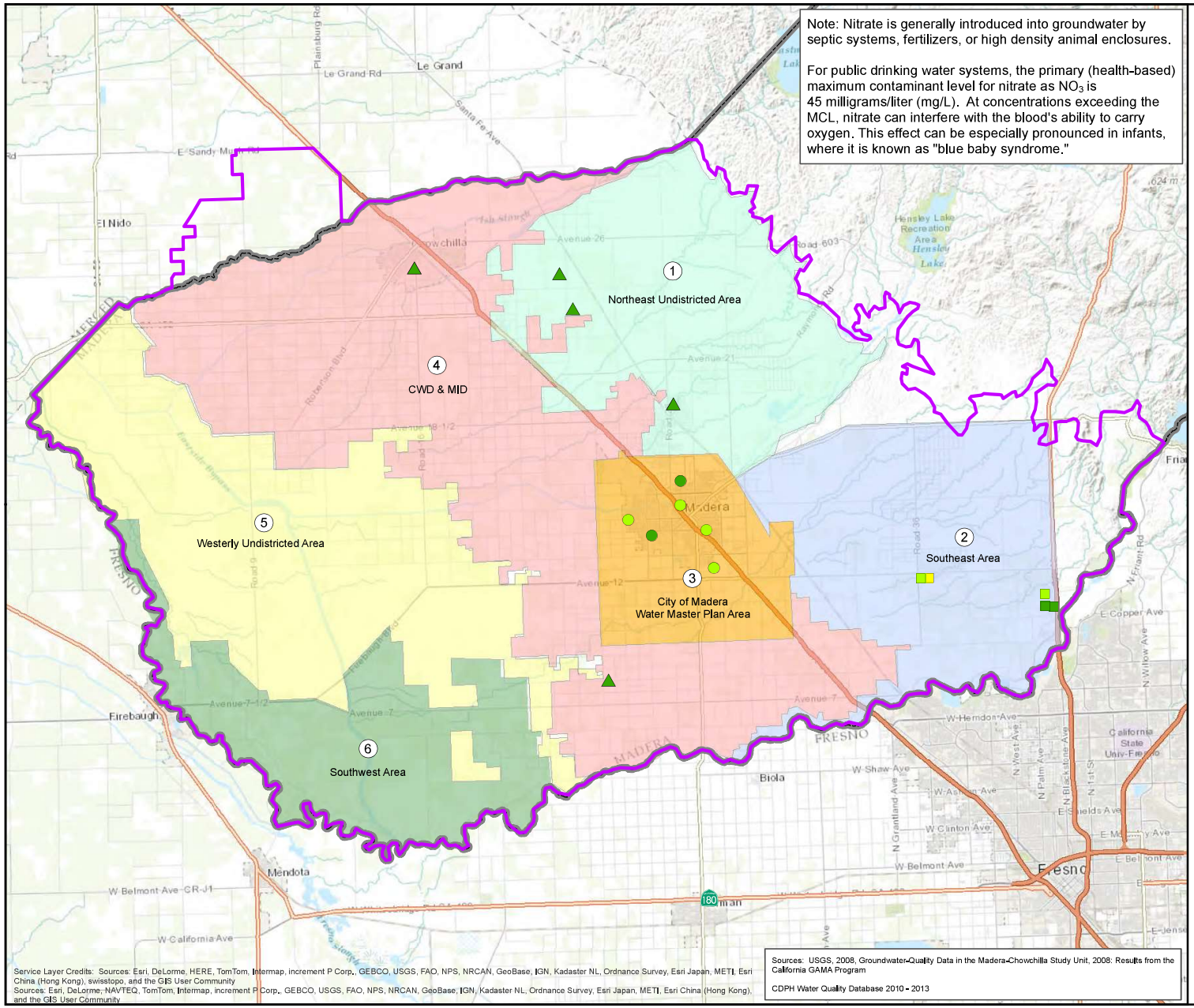
MAP OF NITRATE (AS NO_3) CONCENTRATION IN DEEP WELLS

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014

Note: Nitrate is generally introduced into groundwater by septic systems, fertilizers, or high density animal enclosures.

For public drinking water systems, the primary (health-based) maximum contaminant level for nitrate as NO_3 is 45 milligrams/liter (mg/L). At concentrations exceeding the MCL, nitrate can interfere with the blood's ability to carry oxygen. This effect can be especially pronounced in infants, where it is known as "blue baby syndrome."



NORTH

0 2 4
MILES

Nitrate as NO_3 (mg/L) in City Wells > 600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO_3 (mg/L) in County Wells > 600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Nitrate as NO_3 (mg/L) in USGS GAMA Wells > 600 feet

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Groundwater Management Plan Boundary

Madera County Boundary

Note: All wells are classified by total well depth. Some wells may have screen perforations that begin shallower than the depth classification and therefore represent composite water quality across two or more aquifers.

Sources: USGS, 2008, Groundwater-Quality Data in the Madera-Chowchilla Study Unit, 2008: Results from the California GAMA Program

CDPH Water Quality Database 2010 - 2013

Service Layer Credits: Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

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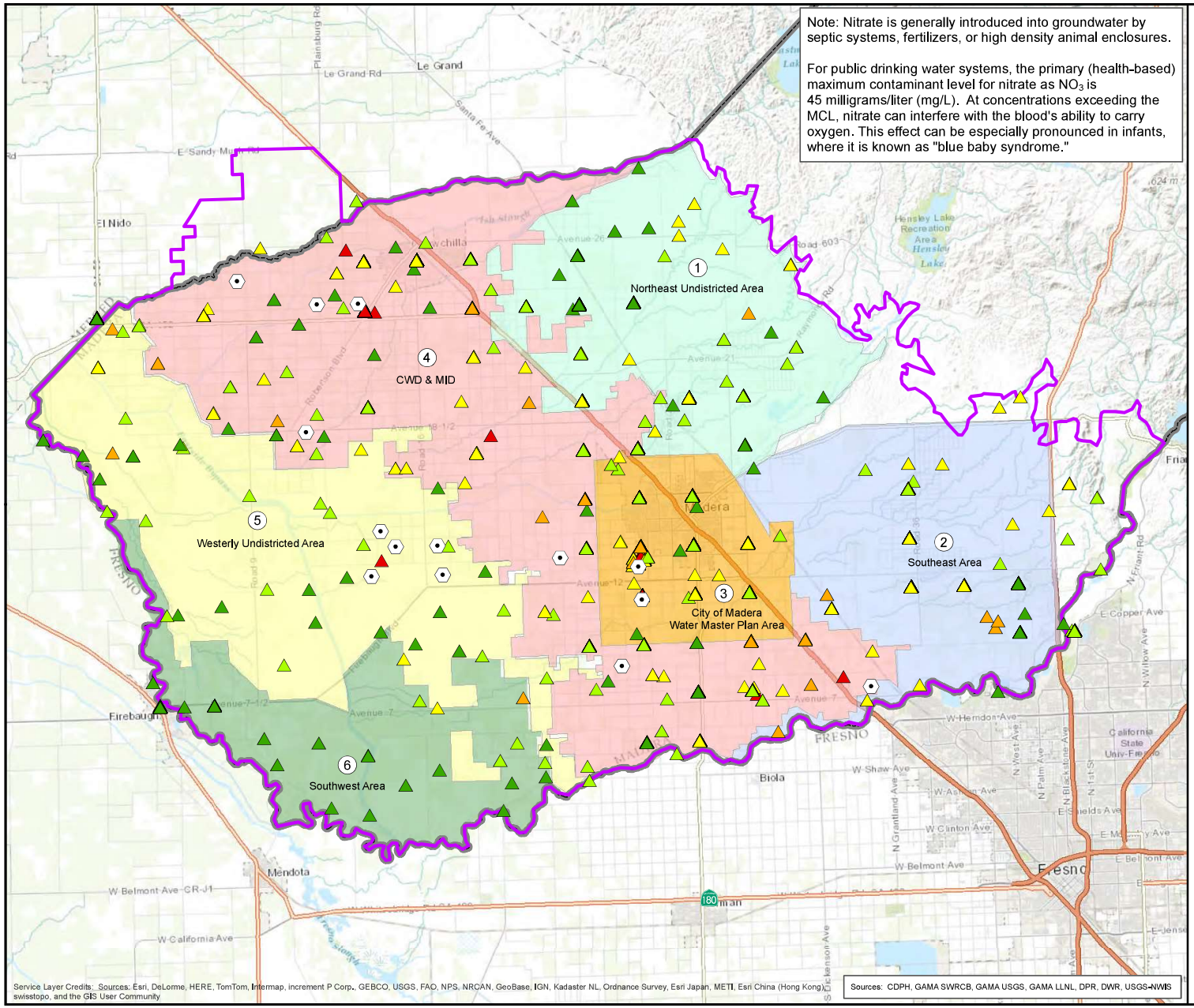
MAP OF NITRATE (AS NO_3) CONCENTRATION IN WELLS OF UNKNOWN DEPTH

MADERA REGIONAL
GROUNDWATER MANAGEMENT PLAN
APRIL 2014



NORTH

0 2 4
MILES

Land-Use that may contribute to Nitrate contamination

Nitrate as NO_3 (mg/L) in Other USGS GAMA Wells

- < 5
- 5 - 15
- 15 - 30
- 30 - 45
- > 45

Groundwater Management Plan Boundary

Madera County Boundary

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APPENDIX 2.F. WATER BUDGET INFORMATION

Prepared as part of the

Groundwater Sustainability Plan
Chowchilla Subbasin

January 2020

GSP Team:

Davids Engineering, Inc
Luhdorff & Scalmanini
ERA Economics
Stillwater Sciences and
California State University, Sacramento

2.F. Water Budget Information

2.F.a. Surface Water System Water Budget: Chowchilla Water District GSA
2.F.b. Surface Water System Water Budget: Madera County East GSA
2.F.c. Surface Water System Water Budget: Madera County West GSA
2.F.d. Surface Water System Water Budget: Sierra Vista Mutual Water Company
2.F.e. Surface Water System Water Budget: Triangle T Water District GSA
2.F.f. Daily Reference Evapotranspiration and Precipitation Quality Control
2.F.g. Development of Daily Time Step IDC Root Zone Water Budget Model