

SOURCE: Groundwater Basins from CA Department of Water Resources, Bulletin 118, v. 3 (date).

0 7 14 Miles

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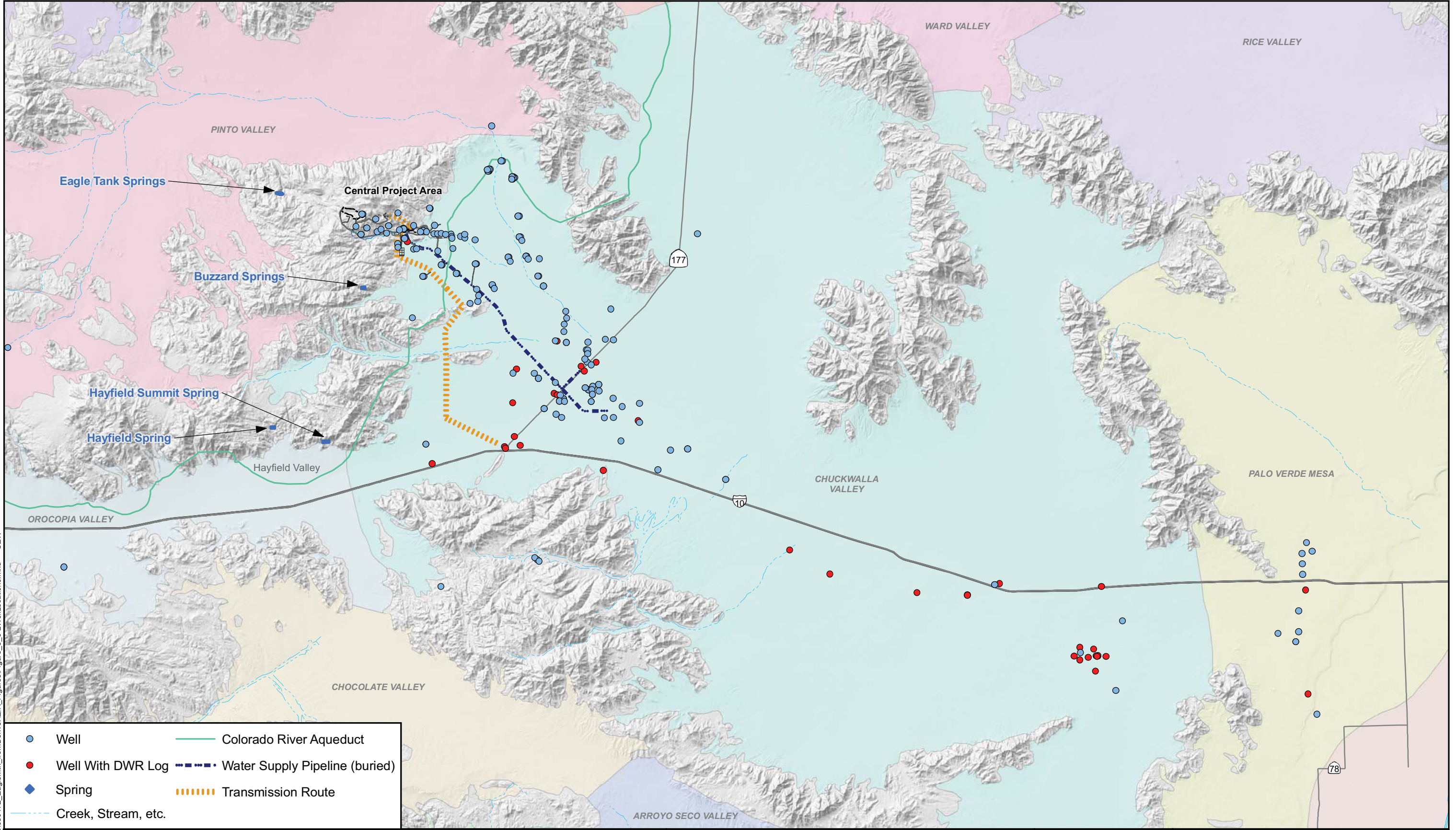


Springs Near Project Area

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Figure 3.3-1

01-Jun-2010 Z:\Projects\080472_EagleMtn_fromDenver\ER_Figures\Figure_3_3-1_Springs.mxd SEW



02-Jun-2010 Z:\Projects\080472_EagleMtn_fromDenver\EIR_Figures\Figure_3_3-2WellLocations.mxd SEW

- Well
- Well With DWR Log
- ◆ Spring
- Colorado River Aqueduct
- - - Water Supply Pipeline (buried)
- ⋯ Transmission Route
- - - Creek, Stream, etc.



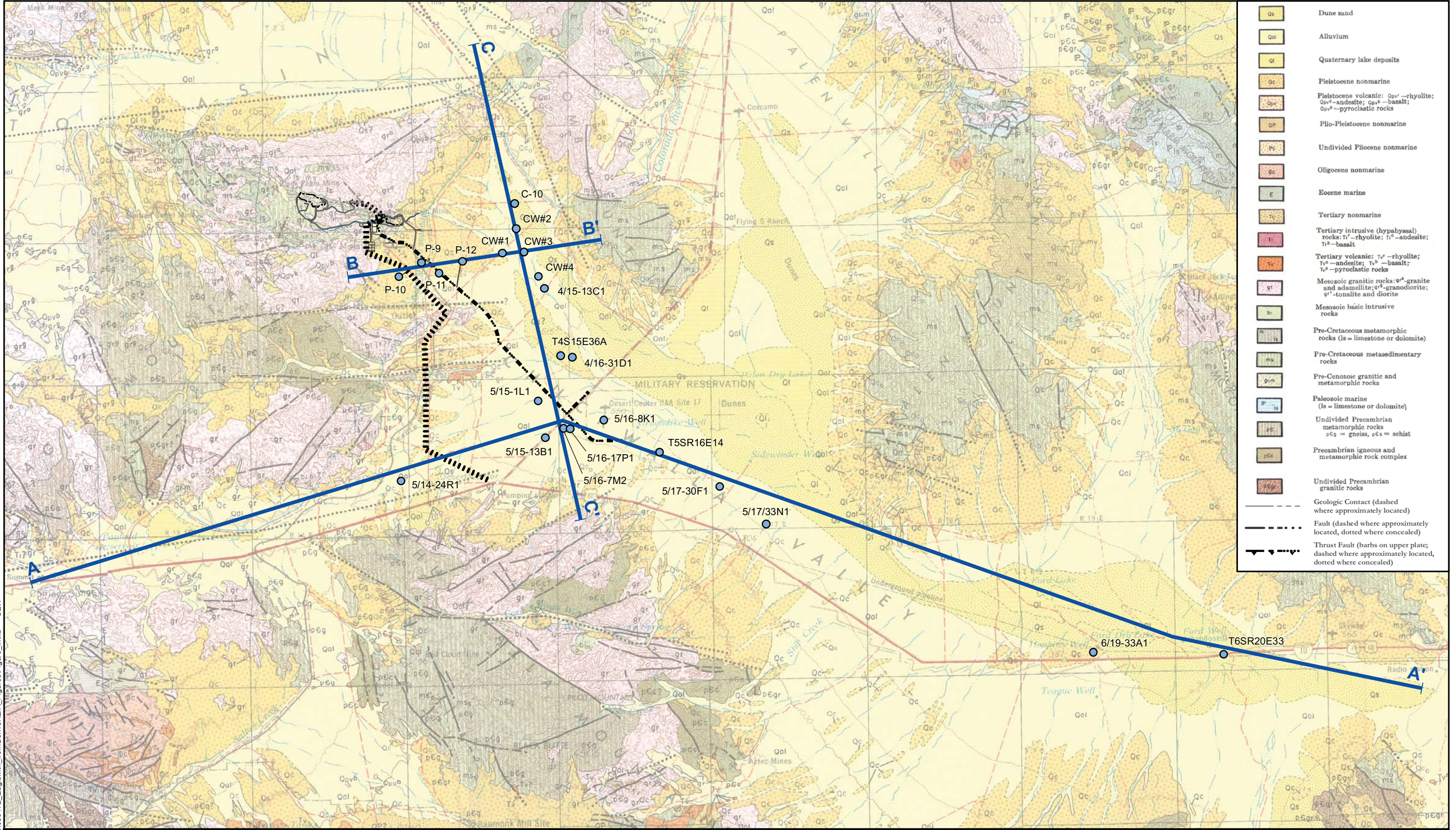
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WELL LOCATIONS

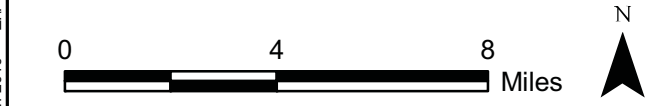
June 2010 Figure 3.3-2



Qs	Dune sand
Qal	Alluvium
Ql	Quaternary lake deposits
Qc	Pleistocene nonmarine
Qpv	Pleistocene volcanic: Qpv ^r - rhyolite; Qpv ^a - andesite; Qpv ^b - basalt; Qpv ^p - pyroclastic rocks
Qp	Plio-Pleistocene nonmarine
Pc	Undivided Pliocene nonmarine
Qc	Oligocene nonmarine
E	Eocene marine
Tc	Tertiary nonmarine
T	Tertiary intrusive (hypabyssal) rocks: T ^r - rhyolite; T ^a - andesite; T ^b - basalt; T ^p - pyroclastic rocks
Tv	Tertiary volcanic: T ^v - rhyolite; T ^v - andesite; T ^v - basalt; T ^v - pyroclastic rocks
gr	Mesozoic granitic rocks: gr ^g - granite and adamellite; gr ^g - granodiorite; gr ^t - tonalite and diorite
bi	Mesozoic basic intrusive rocks
m	Pre-Cretaceous metamorphic rocks (ls = limestone or dolomite)
ms	Pre-Cretaceous metasedimentary rocks
gm	Pre-Cenozoic granitic and metamorphic rocks
sp	Paleozoic marine (ls = limestone or dolomite)
pe	Undivided Precambrian metamorphic rocks peg = gneiss, pes = schist
pC	Precambrian igneous and metamorphic rock complex
gC	Undivided Precambrian granitic rocks

- - - - - Geologic Contact (dashed where approximately located)
- · - · - · - Fault (dashed where approximately located, dotted where concealed)
- ▽ - ▽ - ▽ - ▽ - ▽ - Thrust Fault (barbs on upper plate; dashed where approximately located, dotted where concealed)

SOURCE: Jennings, 1967



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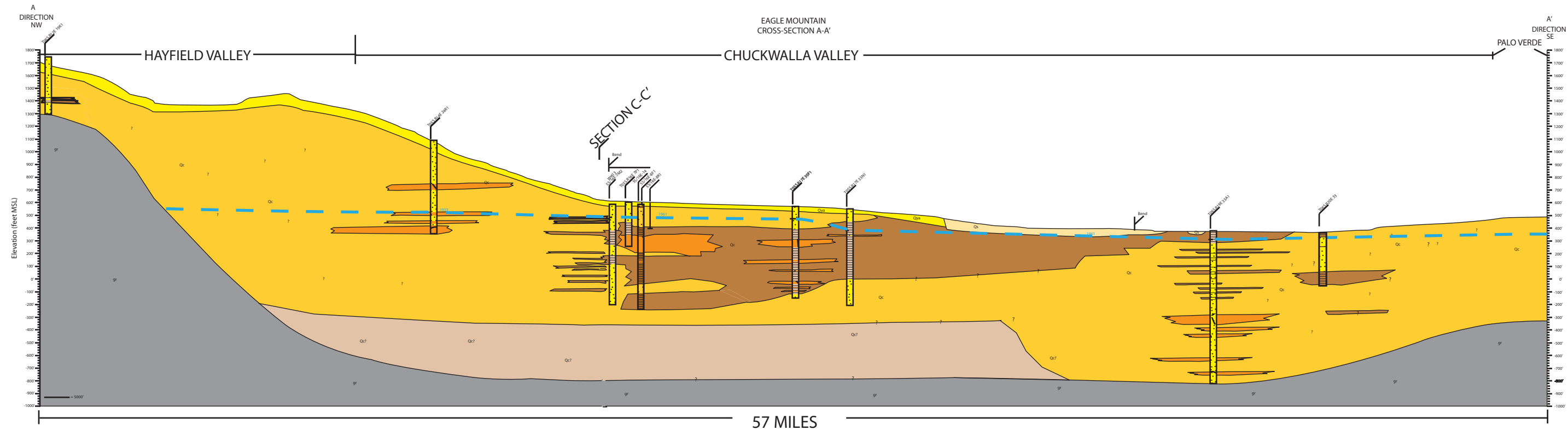


GEOLOGIC PROFILE LOCATIONS

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Figure 3.3-3

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LEGEND	
	GRAVELS
	SANDS
	SILT OR CLAY
	VOLCANICS
	BASEMENT
Qc = Pleistocene nonmarine	Qc = Quaternary Alluvium
Ql = Quaternary Lake Deposits	Qs = Dune Sand
Qpv b = Pleistocene Volcanic	gr = Mesozoic Granitic rocks
ms = Pre-Cretaceous Metamorphic Rocks	
 Water level	= 200'
= 5000'	Horizontal Scale

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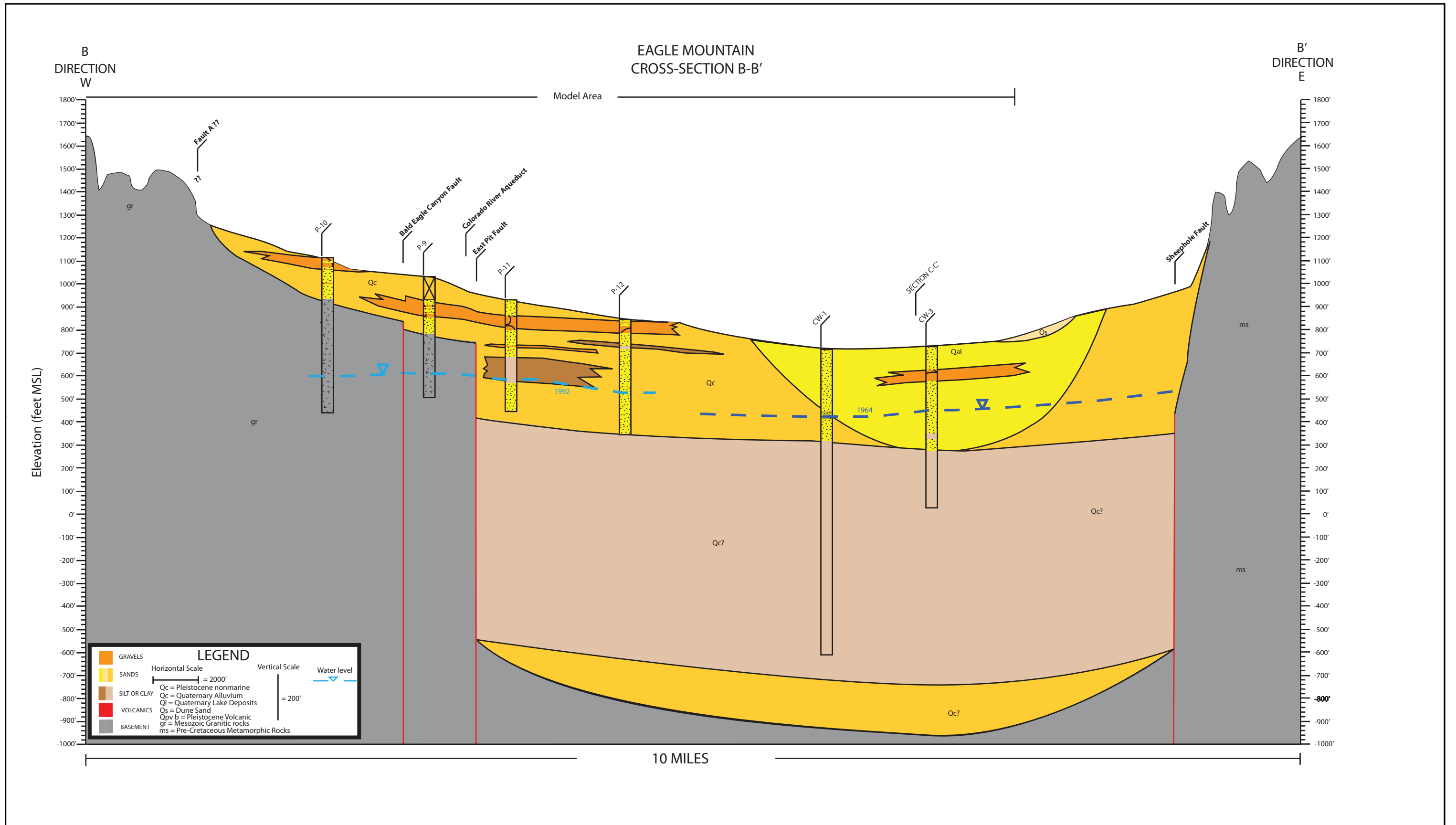
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CROSS-SECTION A-A'

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Figure 3.3-4



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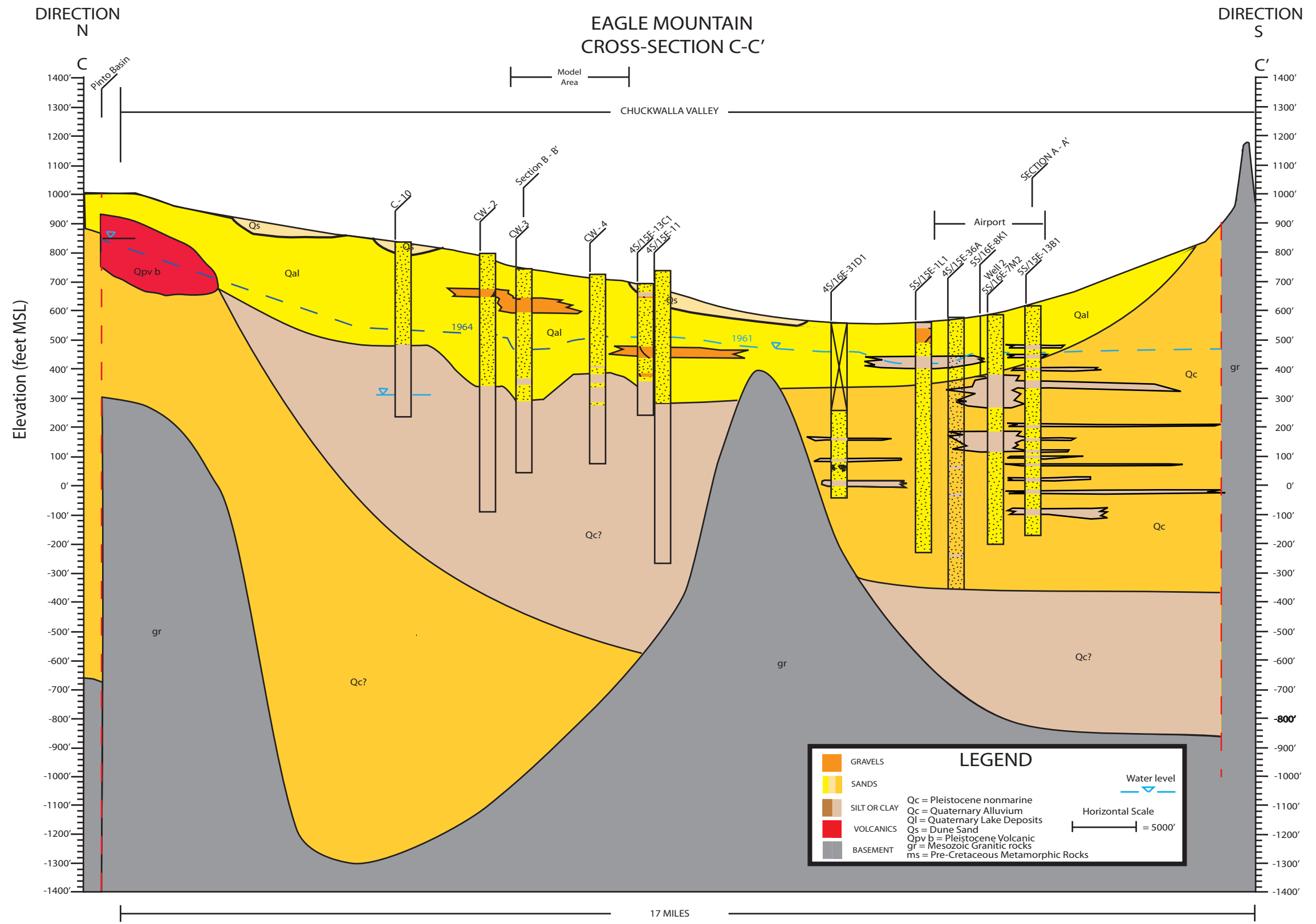
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CROSS-SECTION B-B'

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Figure 3.3-5



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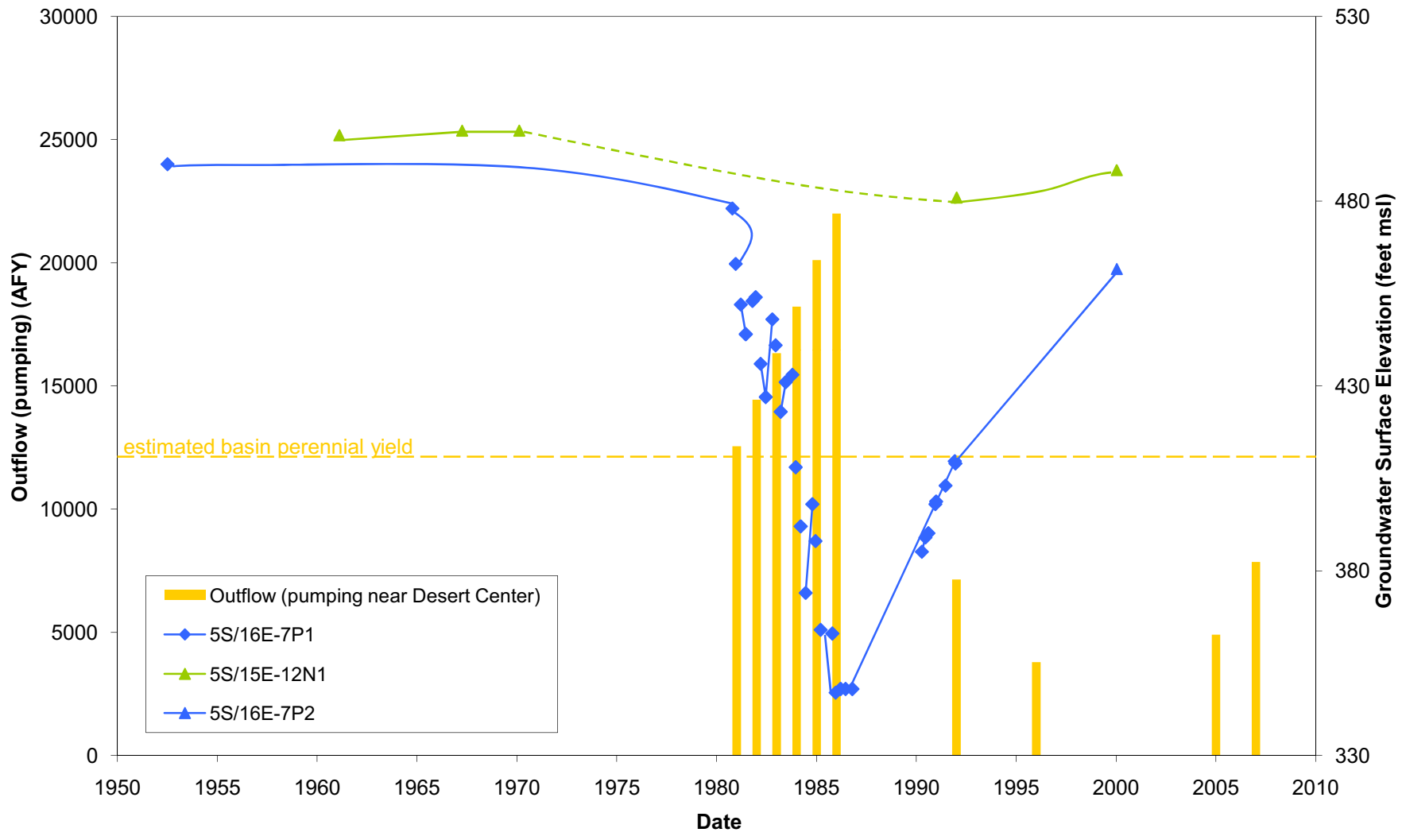


CROSS-SECTION C-C'

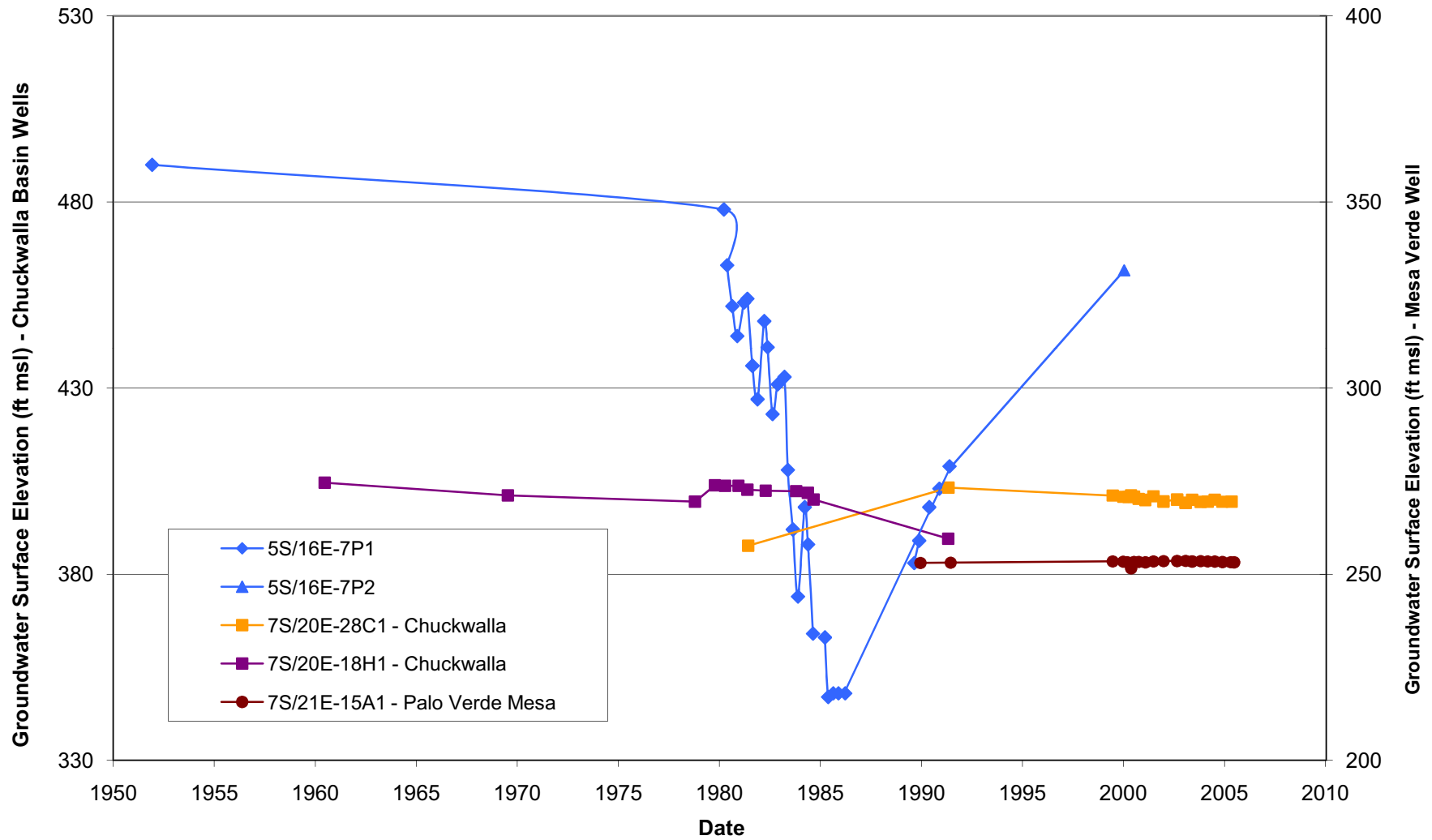
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Figure 3.3-6

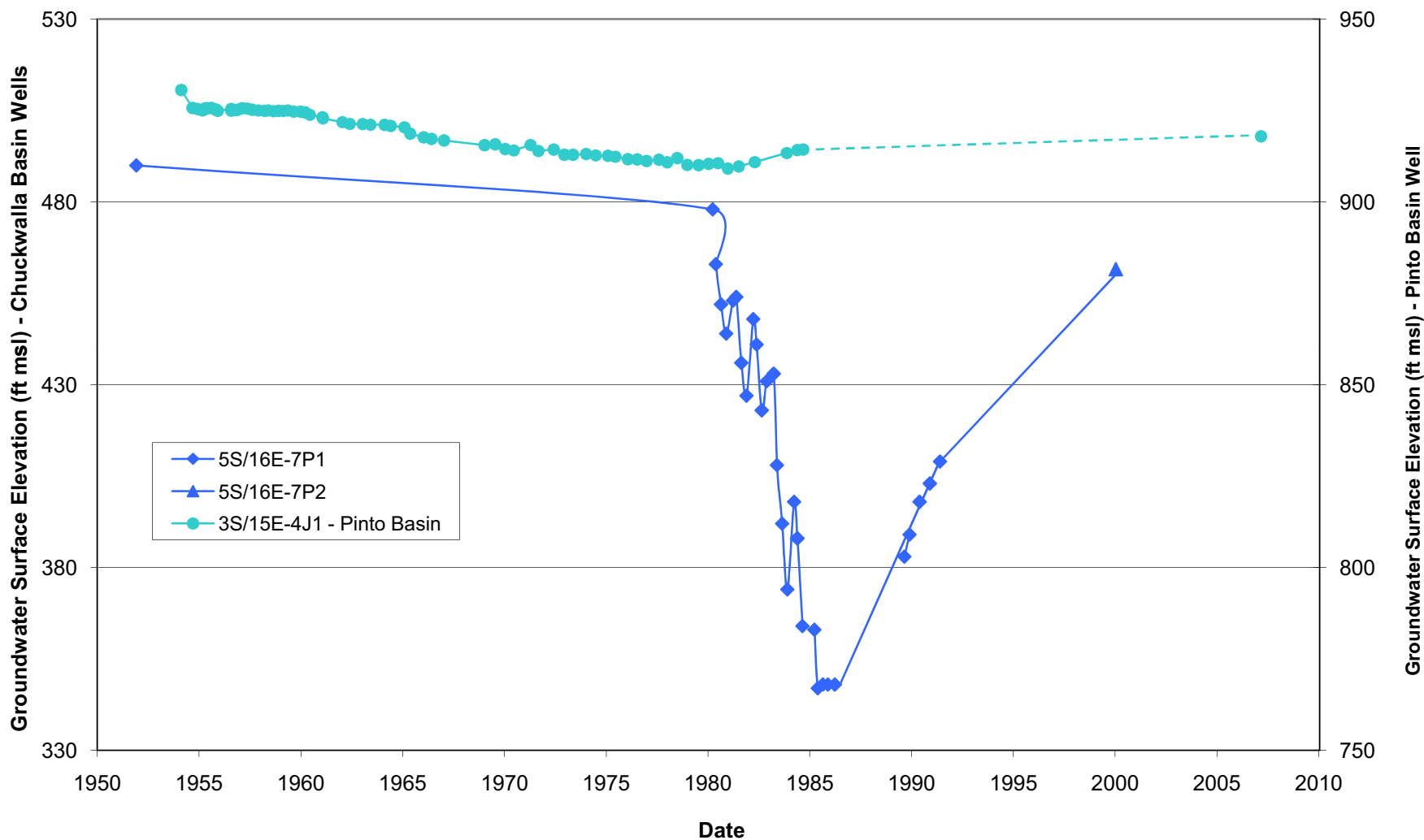
**FIGURE 3.3-7
DESERT CENTER GROUND WATER LEVELS**

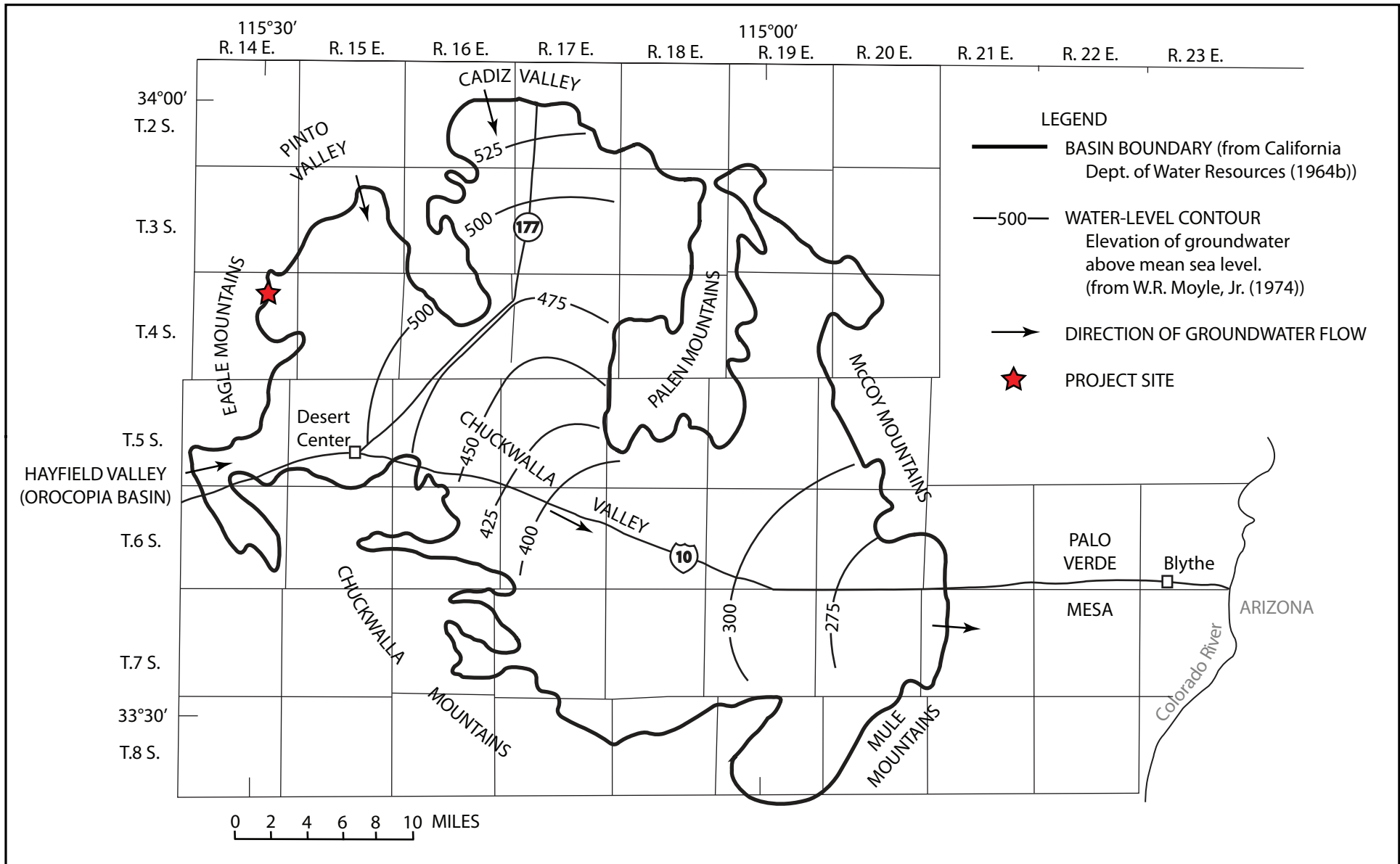


**FIGURE 3.3-8
UPPER CHUCKWALLA VALLEY AND PALO VERDE MESA GROUND WATER LEVELS**



**FIGURE 3.3-9
DESERT CENTER AREA AND PINTO VALLEY GROUND WATER LEVELS**





SOURCE: Modified from California Department of Water Resources Bulletin 91-27, Figure 7 (1979)

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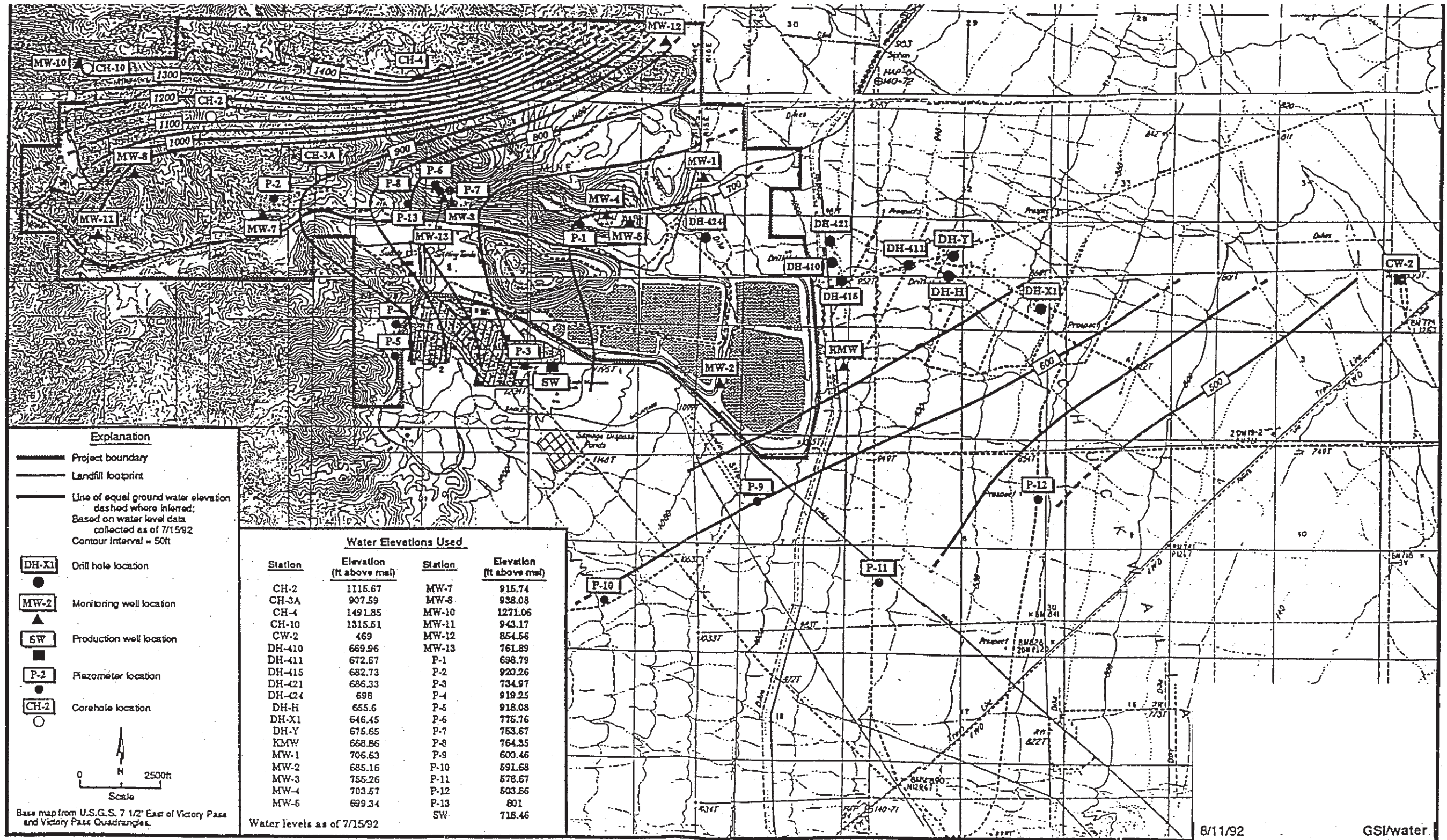
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1974 GROUNDWATER
 CONTOURS USED TO IDENTIFY
 REGIONAL FLOW DIRECTION

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SOURCE: GSI/Water (1992) from GeoSyntec (1992)

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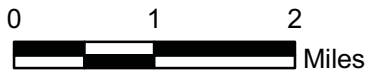
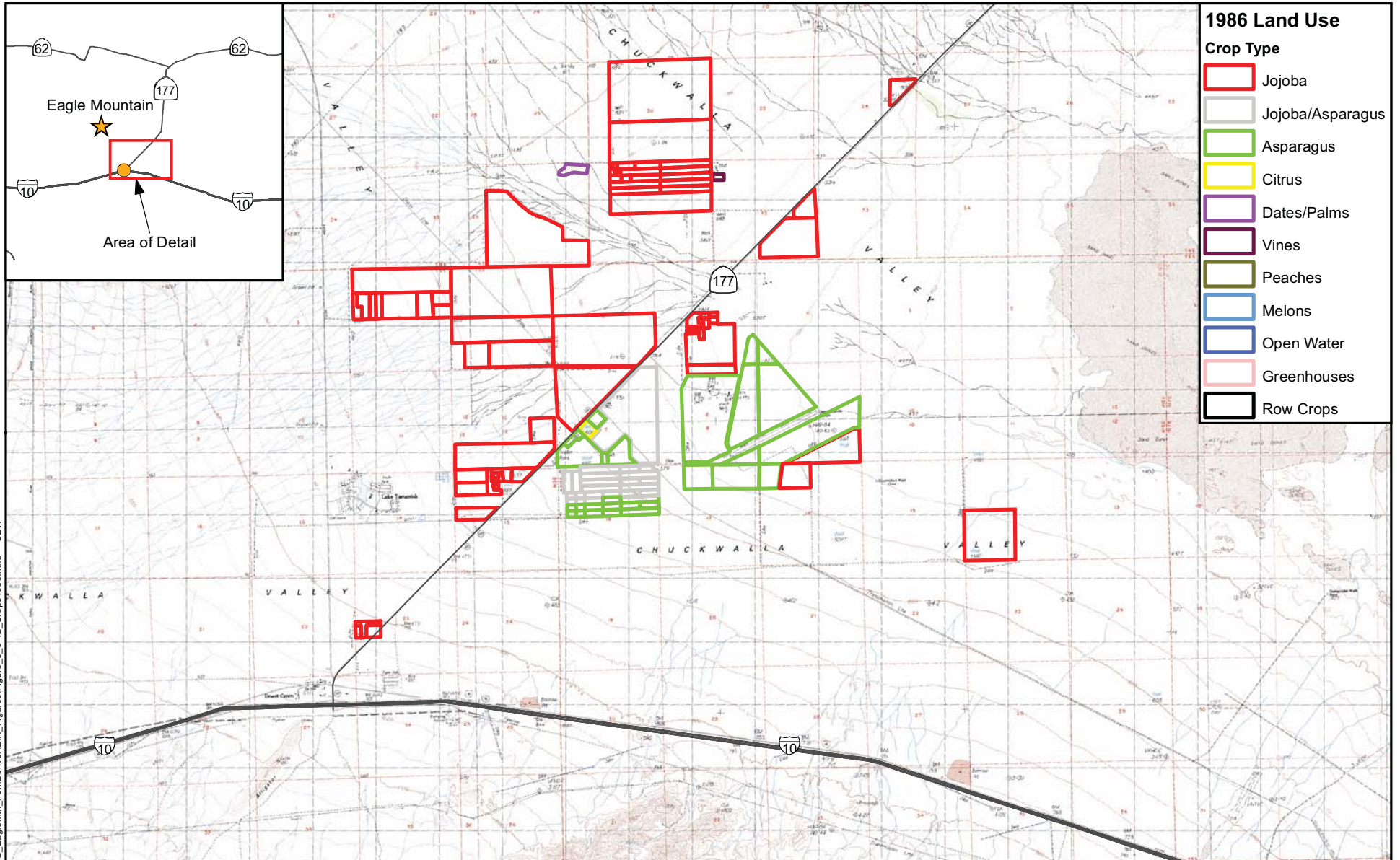


GROUNDWATER CONTOURS
NEAR PROJECT SITE

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Figure 3.3-11

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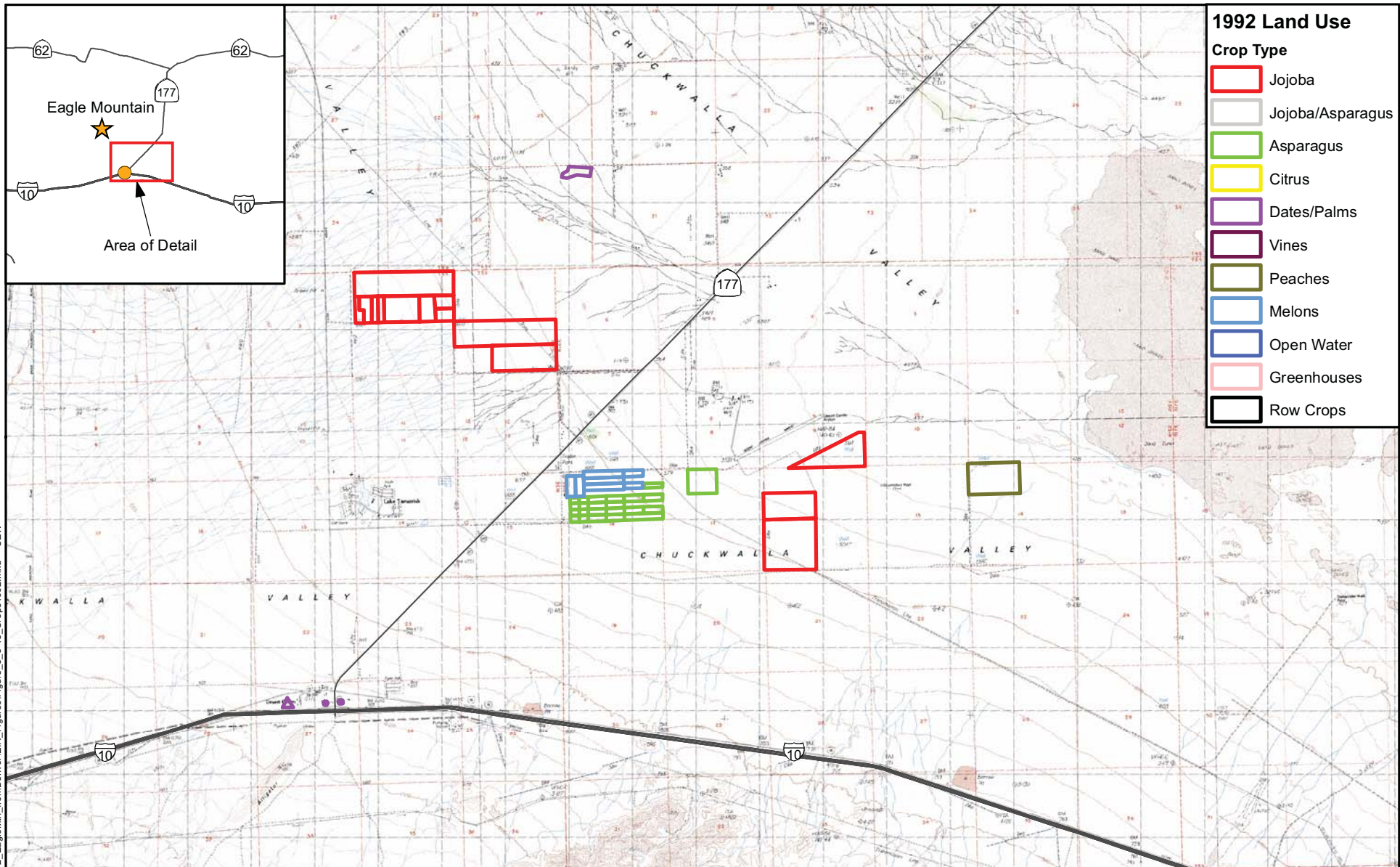


1986 CROP LAND USE
 NEAR DESERT CENTER

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Figure 3.3-12

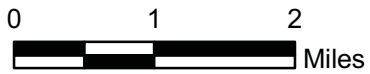
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1992 Land Use

Crop Type

[Red Box]	Jojoba
[White Box]	Jojoba/Asparagus
[Green Box]	Asparagus
[Yellow Box]	Citrus
[Purple Box]	Dates/Palms
[Brown Box]	Vines
[Olive Box]	Peaches
[Blue Box]	Melons
[Light Blue Box]	Open Water
[Pink Box]	Greenhouses
[Black Box]	Row Crops



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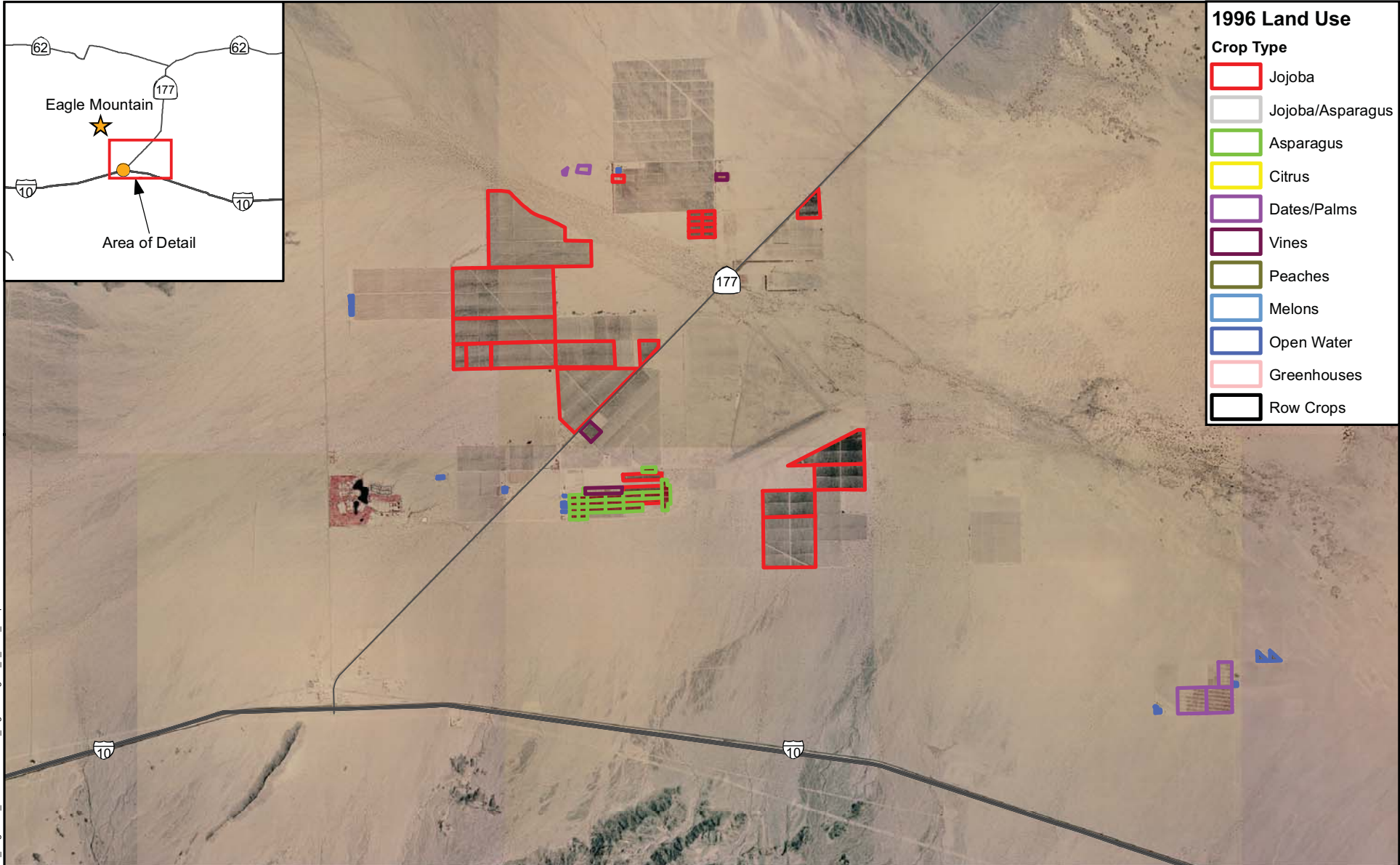
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1992 CROP LAND USE
 NEAR DESERT CENTER

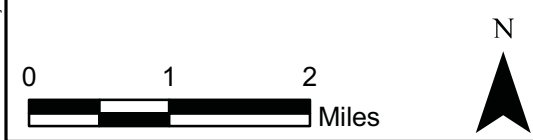
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Figure 3.3-13



- 1996 Land Use**
- Crop Type**
- Jojoba
 - Jojoba/Asparagus
 - Asparagus
 - Citrus
 - Dates/Palms
 - Vines
 - Peaches
 - Melons
 - Open Water
 - Greenhouses
 - Row Crops

SOURCE: USGS DOQQ, 1996.



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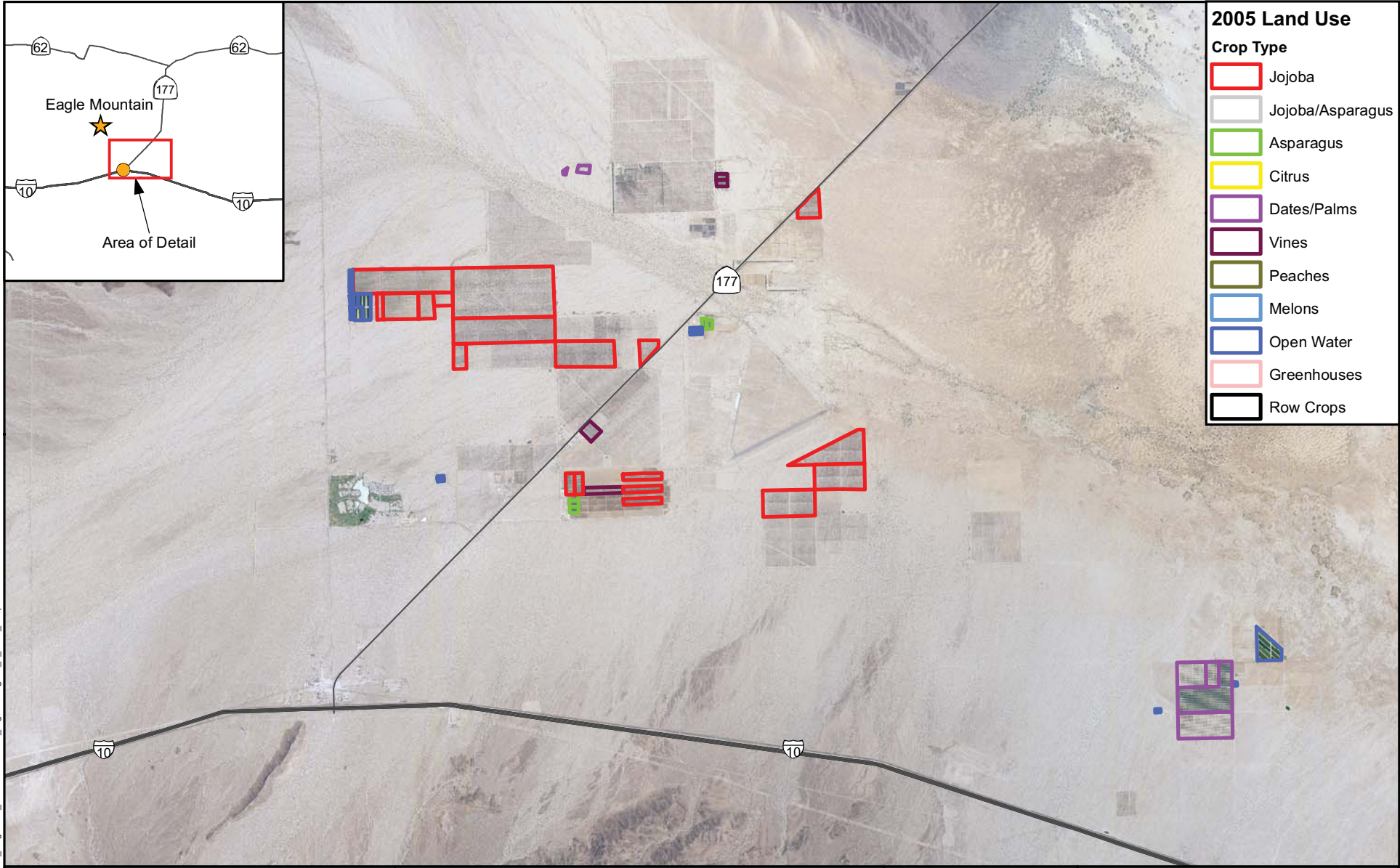
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**1996 CROP LAND USE
 NEAR DESERT CENTER**

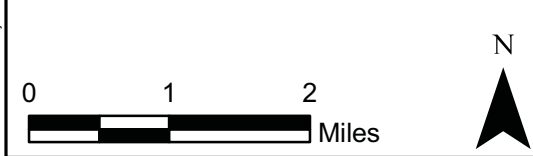
June 2010 Figure 3.3-14

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- 2005 Land Use**
- Crop Type**
- Jojoba
 - Jojoba/Asparagus
 - Asparagus
 - Citrus
 - Dates/Palms
 - Vines
 - Peaches
 - Melons
 - Open Water
 - Greenhouses
 - Row Crops

SOURCE: USDA NAIP Aerial Photo, 2005.



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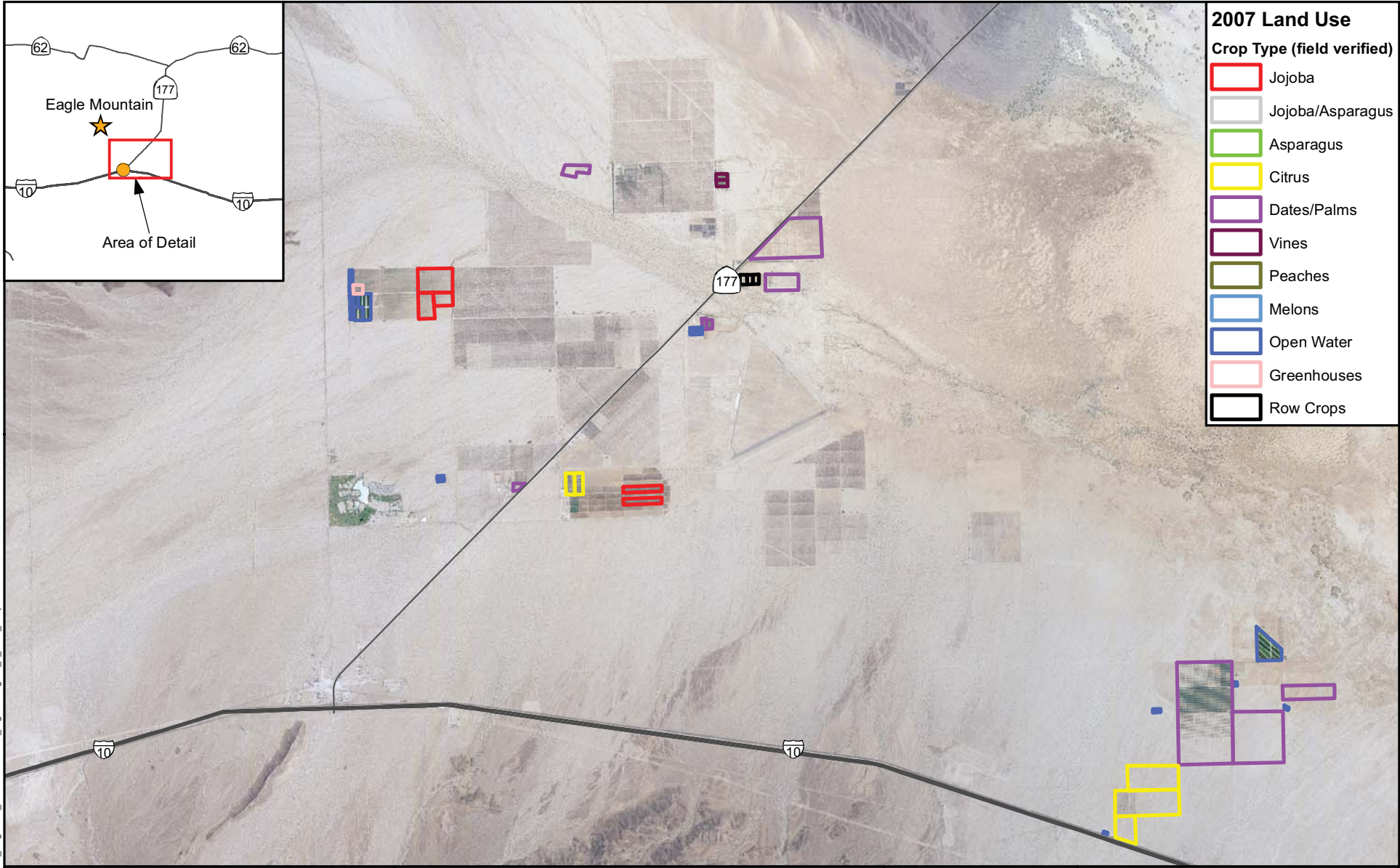
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**2005 CROP LAND USE
 NEAR DESERT CENTER**

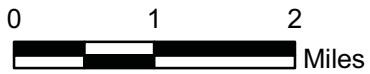
June 2010 Figure 3.3-15

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SOURCE: USDA NAIP Aerial Photo, 2005.



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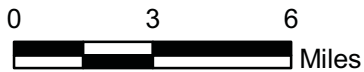


2007 CROP LAND USE
 NEAR DESERT CENTER

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Figure 3.3-16

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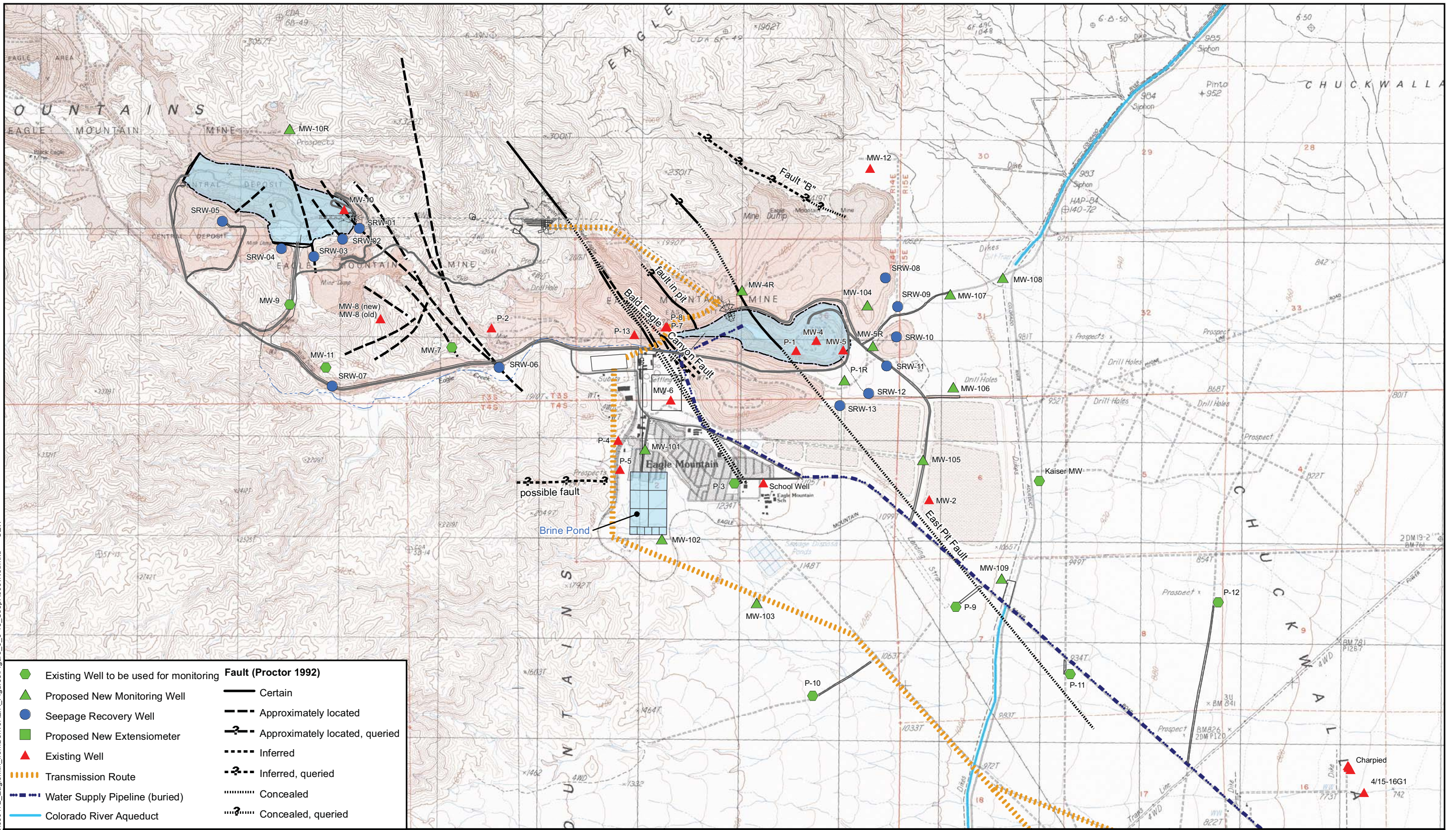


WATER SUPPLY
 MONITORING NETWORK

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Figure 3.3-17

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	Existing Well to be used for monitoring	Fault (Proctor 1992)	
	Proposed New Monitoring Well		Certain
	Seepage Recovery Well		Approximately located
	Proposed New Extensimeter		Approximately located, queried
	Existing Well		Inferred
	Transmission Route		Inferred, queried
	Water Supply Pipeline (buried)		Concealed
	Colorado River Aqueduct		Concealed, queried



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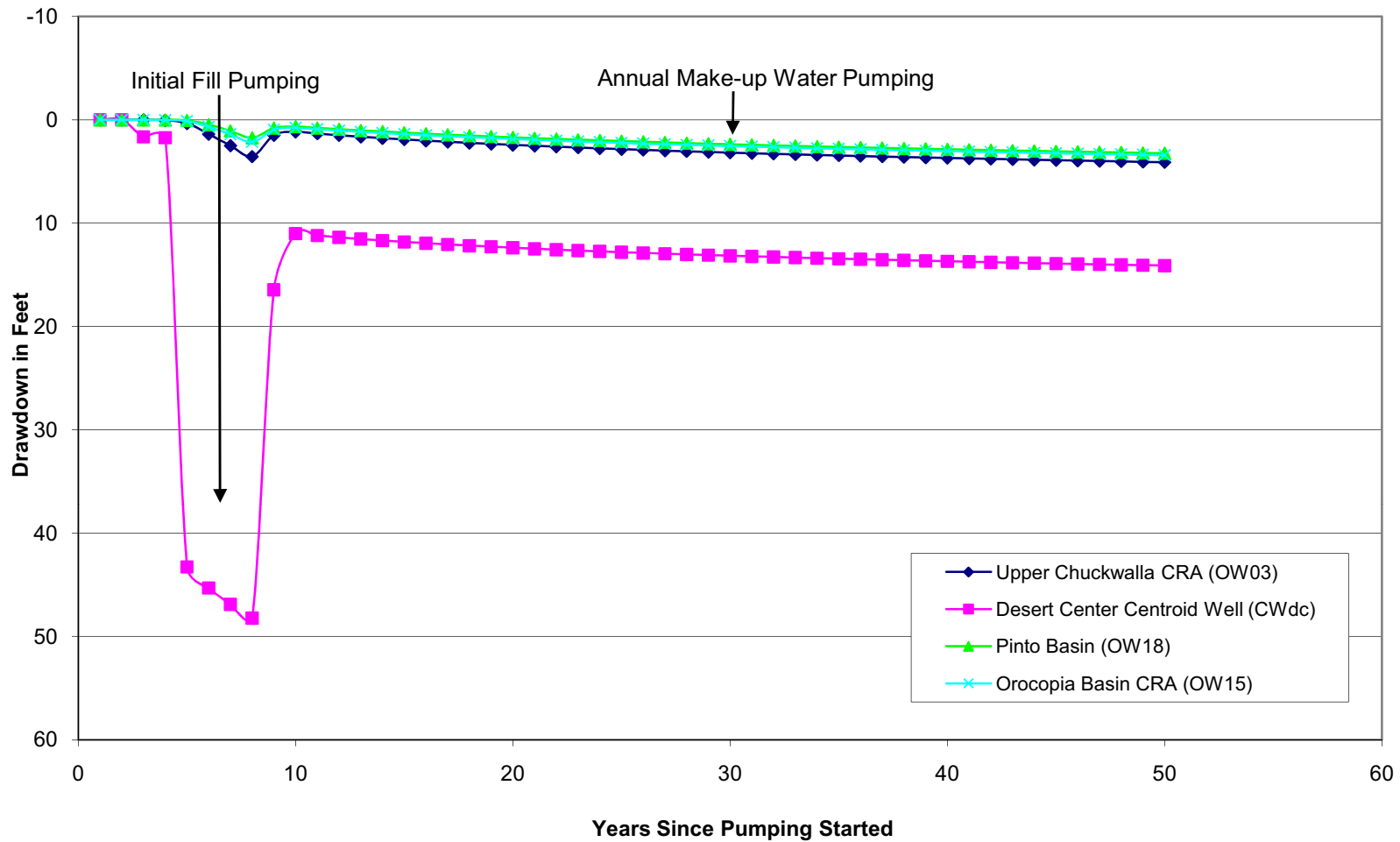


MITIGATION AND
 MONITORING NETWORK

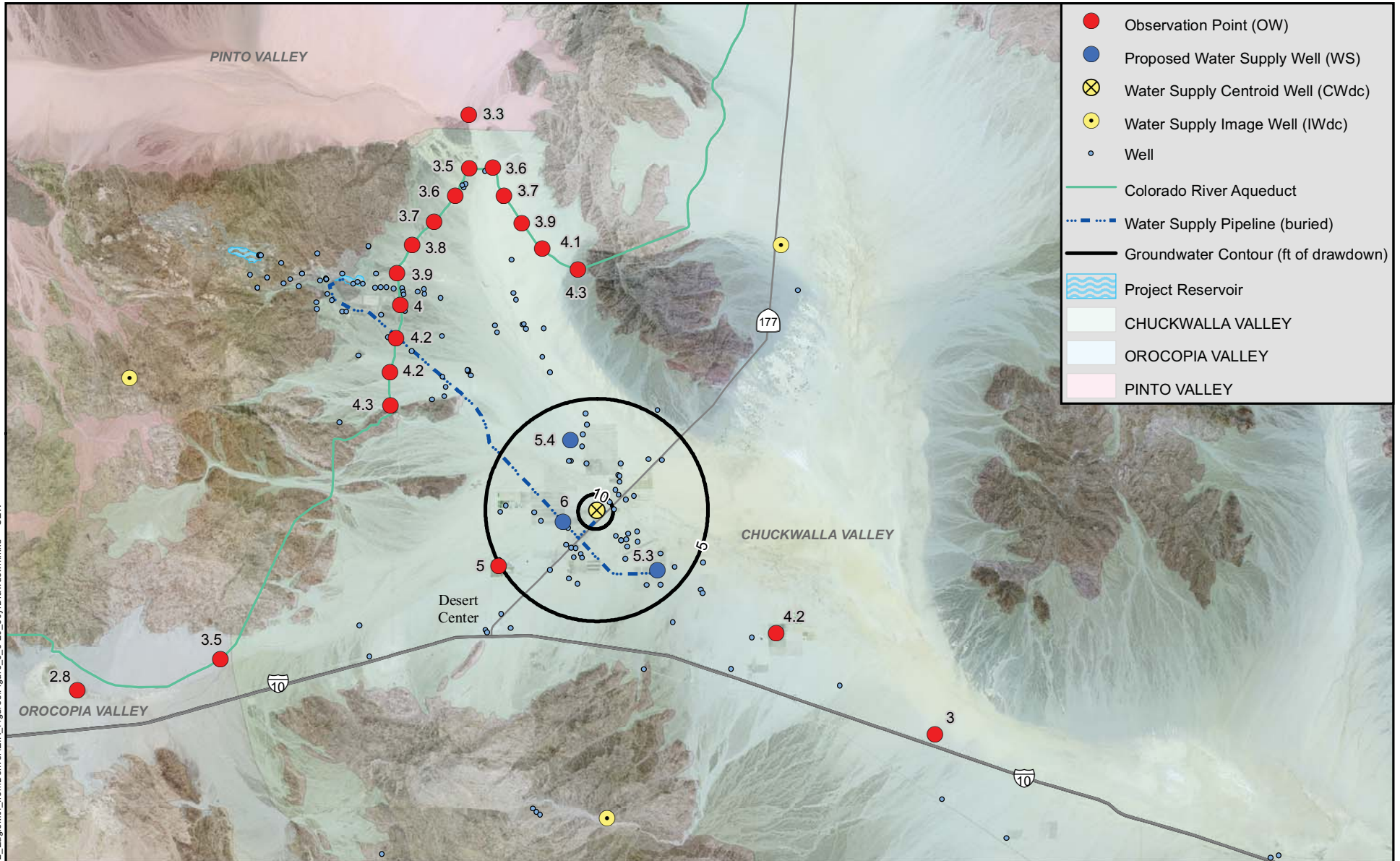
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Figure 3.3-18

FIGURE 3.3-19
50-YEAR PROJECT PUMPING AFFECTS



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- Observation Point (OW)
- Proposed Water Supply Well (WS)
- ⊗ Water Supply Centroid Well (CWdc)
- Water Supply Image Well (IWdc)
- Well
- Colorado River Aqueduct
- - - Water Supply Pipeline (buried)
- Groundwater Contour (ft of drawdown)
- 〰 Project Reservoir
- CHUCKWALLA VALLEY
- OROCOPIA VALLEY
- PINTO VALLEY

0 3 6 Miles

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**DRAWDOWN AFTER
 50 YEARS OF
 PROJECT OPERATION**

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