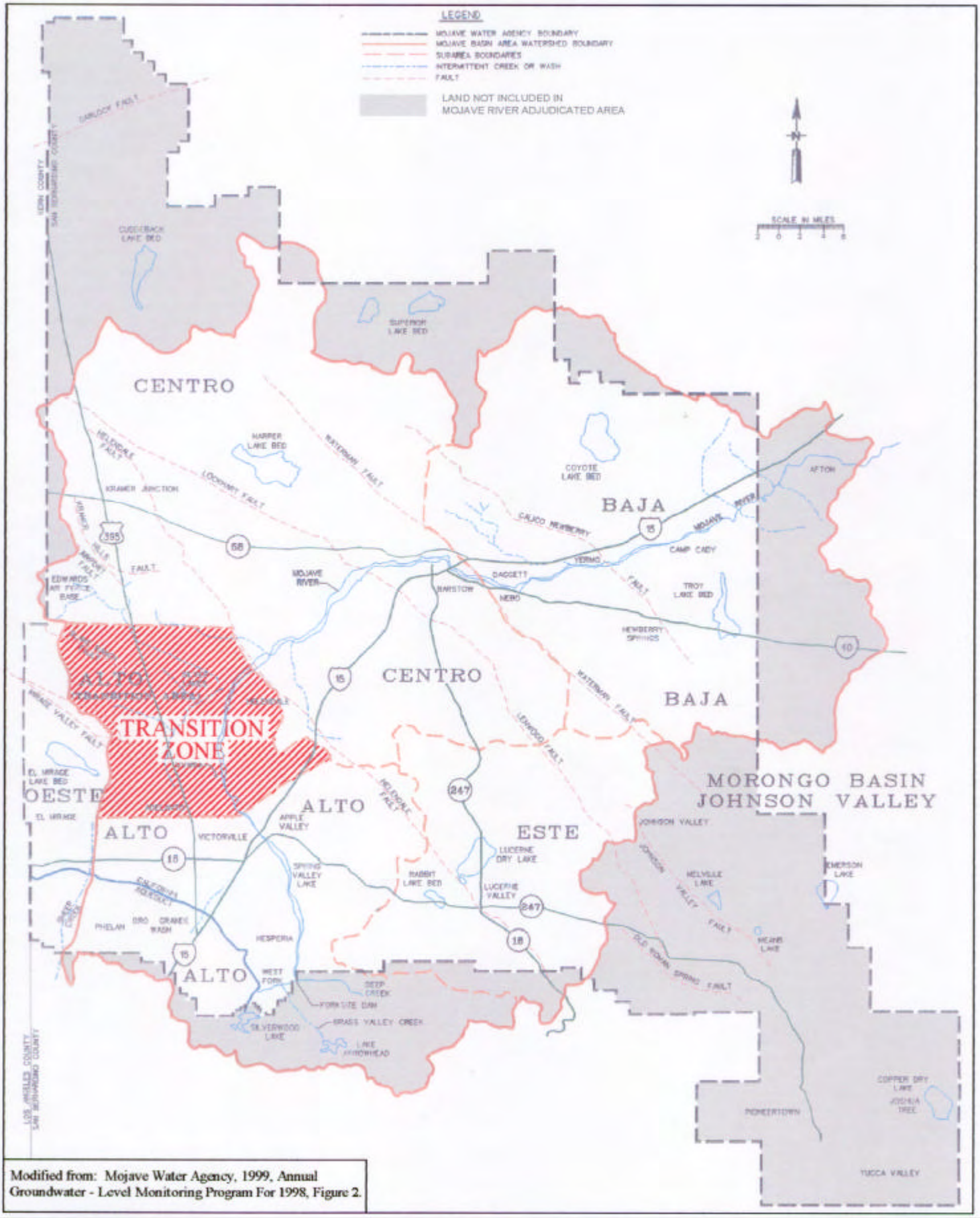
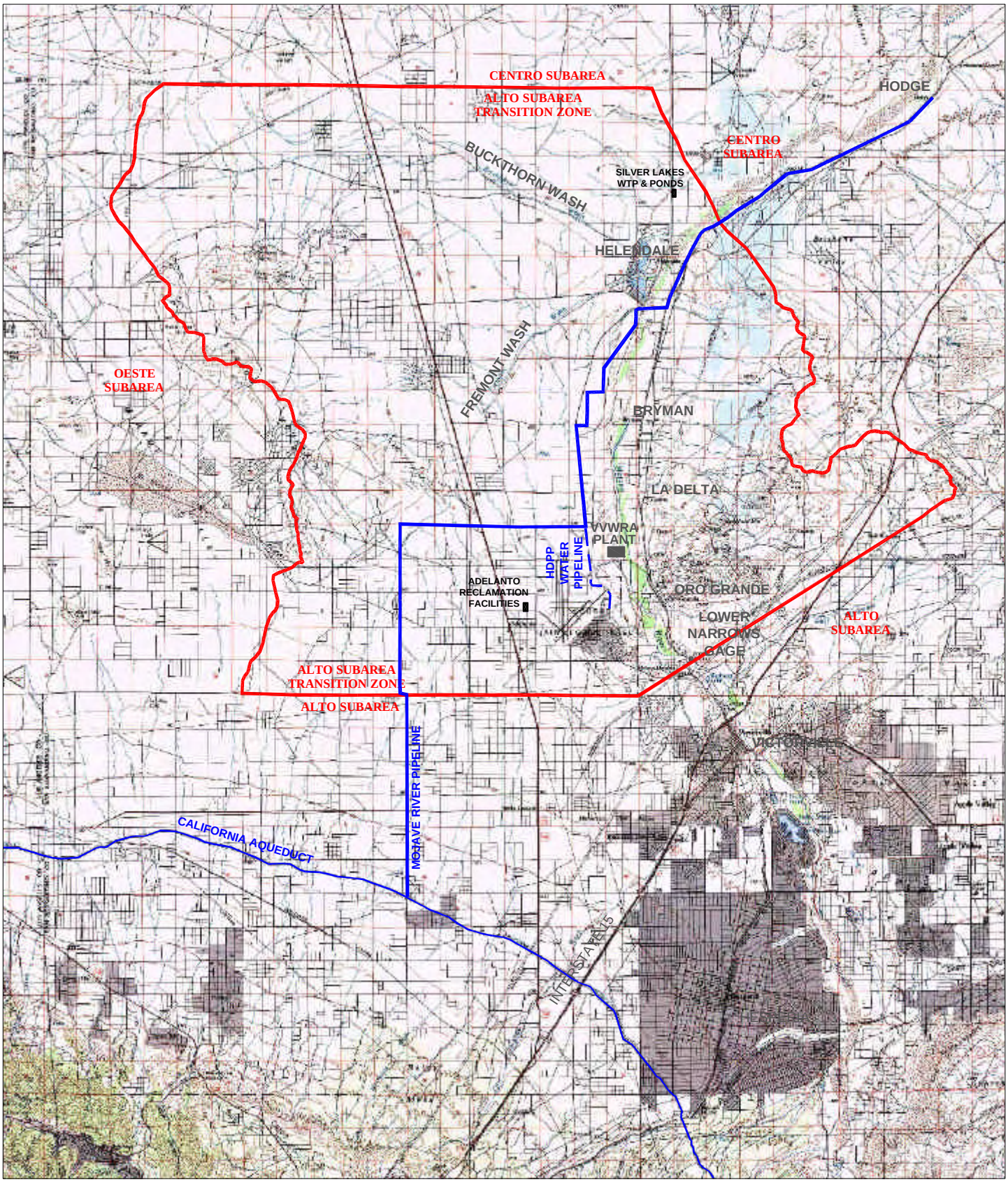


Modified from: Mojave Water Agency, 1999, Annual Groundwater - Level Monitoring Program For 1998, Figure 2.

URS

Figure 1
MWA Subarea Location Map



Modified From:
USGS, 1982a, Topographic Map Of San Bernardino California, 1:100 000-Scale Metric and
USGS, 1982b, Topographic Map Of Victorville California, 1:100 000-Scale Metric

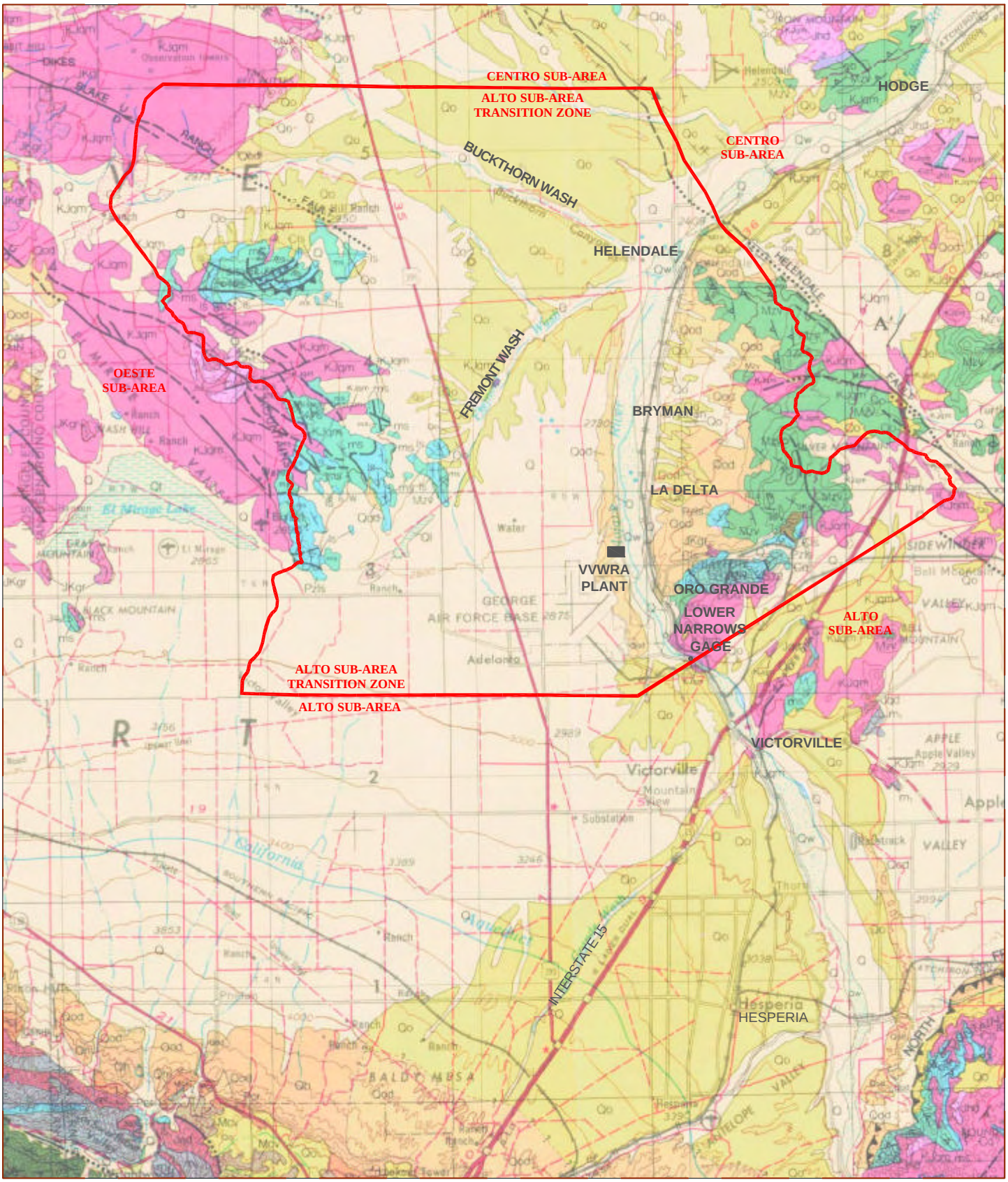
NORTH

0 1 2 3 4 5 10

Scale In Miles

URS

Figure 2
Physiographic Map of the Transition Zone and Surrounding Area



Modified From: California Division of Mines and Geology, 1986, Geologic Map of California, San Bernardino Sheet, 1:250,000.

URS

NORTH

0 1 2 3 4 5 10

Scale In Miles

Figure 3a
Geologic Map
of the Transition Zone
and Surrounding Area

ABBREVIATED EXPLANATION

Approximate stratigraphic relationships only; see Geologic Map Explanation for more accurate age determinations and unit descriptions.

CENOZOIC

QUATERNARY

Holocene

- Q — Alluvium *(Undifferentiated)*
- Qw — Wash deposits *(Alluvial deposits of modern washes)*
- Qow — Older wash deposits *(Alluvial deposits of abandoned washes)*
- Qls — Landslide deposits
- Qs — Wind-blown sand
- Qyf — Younger fan deposits
- Qf — Fan deposits
- Qya — Younger alluvium
- Ql — Lake deposits

Pleistocene

- Qof — Older fan deposits
- Qo — Older alluvium *(Undifferentiated)*
- Qg — Glacial till and outwash
- Qod — Well dissected alluvial fans
- Qh — Harold Formation and Shoemaker Gravel *(Fine- to coarse-grained sediments, nonmarine)*
- Qol — Older lake deposits

TERTIARY

Pliocene

- QT — Continental deposits *(Undifferentiated; fluvial gravel, sand, silt, and clay)*
- QTsi — San Timoteo Formation *(Nonmarine sandstone, siltstone, conglomerate, and shale)*
- Pj — Juniper Hills Formation *(Nonmarine sandstone, conglomerate, siltstone, and shale)*
- Pow — Old Woman Sandstone *(Arkosic sandstone and conglomerate; nonmarine)*
- Pcr — Crowder Formation *(Nonmarine arkosic sandstone and conglomerate)*
- Pa — Anaverde Formation *(Nonmarine sandstone and shale)*
- Pf — Fernando Formation *(Siltstone, sandstone, conglomerate; marine)*
- Ppb — Punchbowl Formation *(Nonmarine cobbly to pebbly sandstone)*

Miocene

- Mp — Potato Sandstone
- Msa — Santa Ana Sandstone *(Nonmarine)*
- Mcl — Coachella Fanglomerate *(Boulder, cobble, and pebble fanglomerate)*
- Mpe — Puente Formation *(Marine siltstone, sandstone, and shale)*
- Mb, Mb^v — Barstow Formation *(Nonmarine sandstone, siltstone, conglomerate, and tuff)*; Mb^v-volcanic rocks
- Mcv — Punchbowl (?) Formation of Cajon Valley *(Nonmarine arkosic conglomerate and sandstone)*
- Mtp — Topanga Formation *(Marine sandstone and conglomerate)*
- Mt — Tropico Group *(Conglomerate, arkosic sandstone, siltstone, tuff, shale and limestone)*
- Mu, Mcls — Unnamed Miocene continental deposits *(Poorly sorted sandstone and conglomerate)*; Mcls-limestone and claystone
- Mph — Pickhandle and Jackhammer Formations *(Nonmarine tuff, agglomerate, sandstone, and mudflows)*
- Mh — Hector Formation *(Nonmarine volcaniclastic sediments)*
- Mvq — Vaqueros (?) Formation *(Marine arkosic sandstone, siltstone, and conglomerate)*

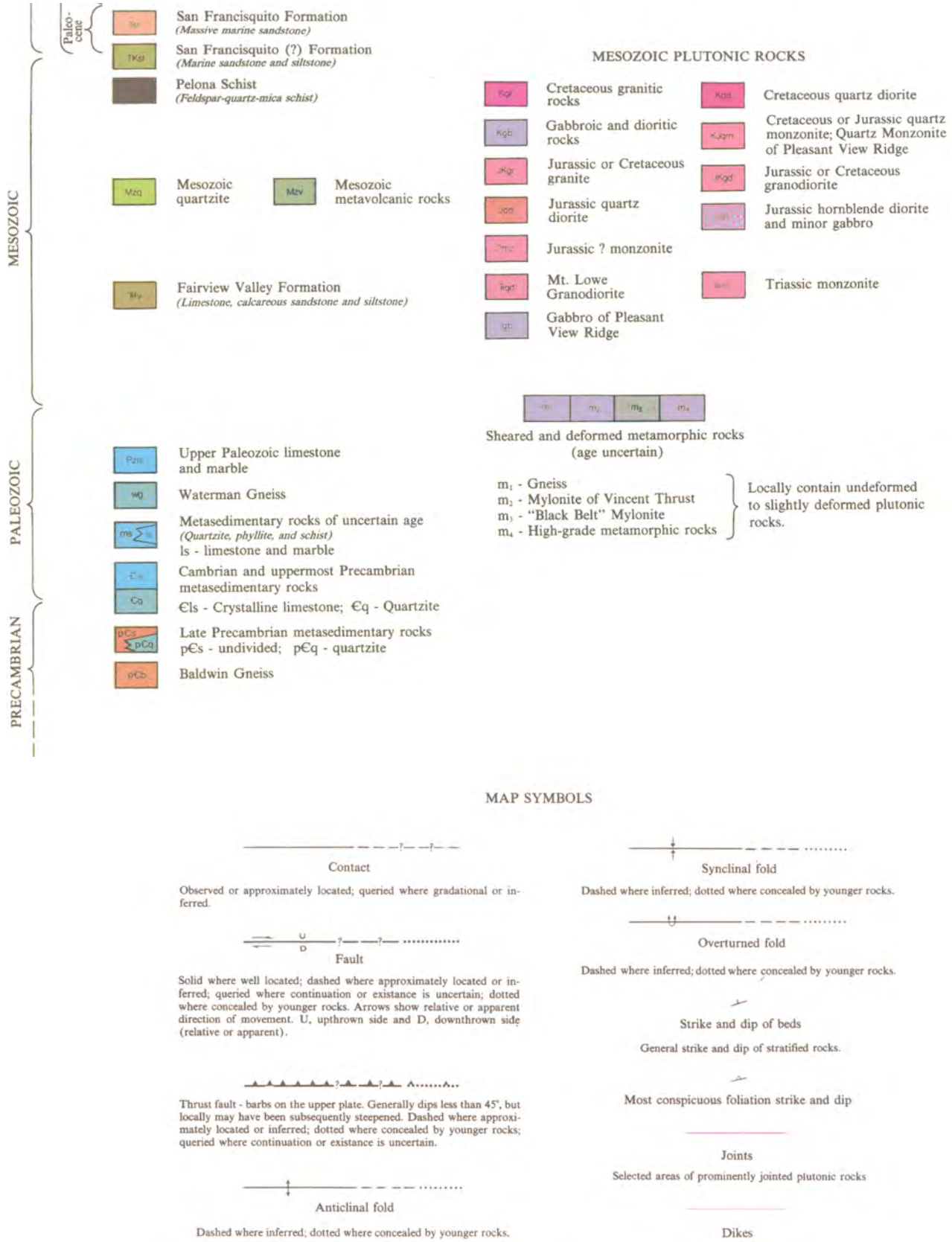
Oligocene

- Tgr — Tertiary granitic rocks
- Tvz — Vasquez Formation, volcanic member *(Andesite, dacite, and tuff)*
- Tm — Mountain Meadows Biotite, Dacite Porphyry

- Tbs — Basalt; Cinder cone
- MTv — Miocene–Pliocene volcanic rocks *(b-basalt; t-rhyolite tuff)*
- Mi — Miocene shallow intrusive rocks *(a-andesitic; d-dacitic and rhyolitic; b-basaltic)*
- Mgv — Glendora Volcanics *(a-andesite; b-basalt; r-rhyolite)*
- Mv — Miocene volcanic rocks *(a-andesite; b-basalt; d-dacite; p-pyroclastic rocks)*

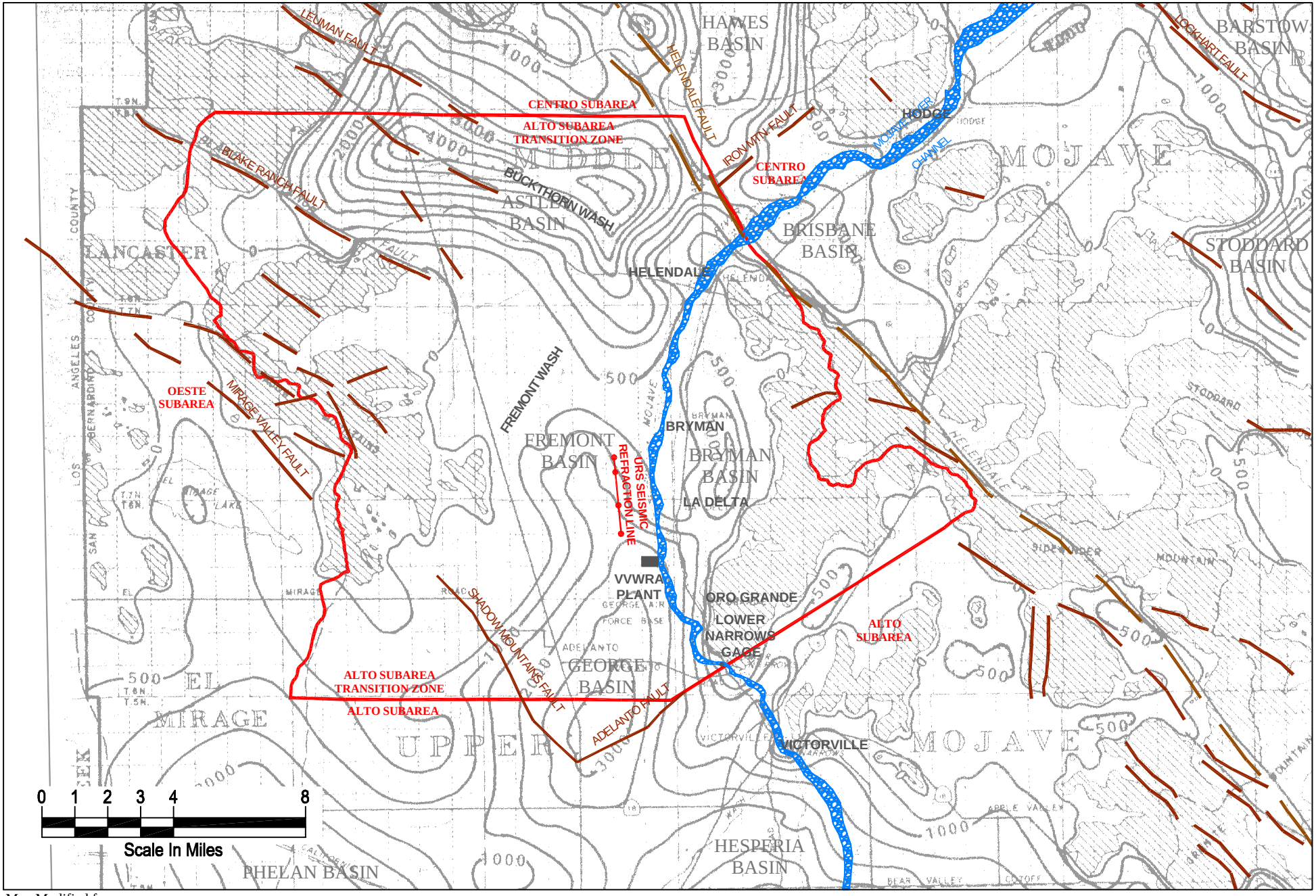
Source: California Division of Mines and Geology, 1986, Geologic Map of California, San Bernardino Sheet, 1:250,000.

Figure 3b
Geologic Map Explanation



Source: California Division of Mines and Geology, 1986, Geologic Map of California, San Bernardino Sheet, 1:250,000.

Figure 3c
Geologic Map Explanation



Map Modified from:
Subsurface Surveys, Inc., 1990, Inventory of Groundwater Stored in the Mojave River Basins.

BEDROCK DEPTH (FEET) (SSI, 1990)

BEDROCK FAULT MAPPED BY OTHERS, CDMG (1986), DWR (1960), & USGS (2001A)

NORTH

URS

Figure 4
Depth to Bedrock