

Hydrogeologically Vulnerable Areas Map

Background

In response to Executive Order D-5-99, State Water Board staff created a map where published hydrogeologic information indicates soil or rock conditions that may be more vulnerable (or susceptible) to groundwater contamination: "Hydrogeologically Vulnerable Areas." The map was created due to groundwater concerns over releases of MTBE, primarily from leaking underground storage tank sites. However, areas that are vulnerable to MTBE may also be vulnerable to other contaminants released at the surface.

The map was created in 2000 using Department of Water Resources (DWR) and US Geological Survey publications. Data from these publications were used to identify areas where geologic conditions are more likely to allow recharge at rates substantially higher than in lower permeability or confined areas of the same groundwater basin.

The identified areas are associated by a metadata table (in the following pages) which identifies (1) DWR basin name and number, (2) published source of information (i.e., title, date, author, and appropriate page, figure, table, or plate number), and (3) specific criteria upon which the vulnerability category is based.

Groundwater resources underlying designated (i.e., published) recharge, rapid infiltration, or unconfined areas were considered categorically more vulnerable to potential contaminant releases than groundwater underlying areas of slower recharge, lower infiltration rates, or intervening low permeability deposits (i.e., confining layers).

Areas Outside Basins

Staff did not map areas in the fractured rocks that occur in mountain and foothill areas (e.g. Sierra Nevada), or in permeable volcanics which may provide primary recharge for those areas. By default, the groundwater resources in these areas are considered hydrogeologically vulnerable. Some small alluvial groundwater basins in regions of the Mojave and Colorado Deserts were not mapped due to their sparse population.

These maps and metadata tables were distributed to DWR and the Department of Public Health for review and revision. This map should be used as a large scale tool and does not override more recent or detailed site-specific knowledge.



* Hydrogeologically Vulnerable Areas are where published studies show geologic conditions are more likely to allow surface contaminants to move to groundwater through percolation; for example: areas without an aquitard. Vulnerable areas not mapped, due to their extensiveness, are fractured rock where contaminants can move directly to water.



Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|----------------------------|-----------------|--|------------------|--|
| North Coastal | 1-1 | Smith River Valley | Del Norte | USGS Water-Supply Paper 1254, p. 38, Pl. 5 ; DWR Bull. 66-59, p. 14 | Yes | USGS Water-Supply Paper 1254, p. 38, paragraph 2, "Ground water ... permeable stream channels."; paragraph 4, "Terrace deposits ... recharge areas." |
| North Coastal | 1-2 | Klamath River Valley | Modoc, Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. Sparse population. |
| North Coastal | 1-3 | Butte Valley | Siskiyou | DWR Bull. 66-59, p. 18 ; USGS Water-Supply Paper 1491, Pl. 1, Table 4, p. 18-19, 58 | Yes | Recharge largely through direct percolation of precipitation or subsurface inflow from streams. |
| North Coastal | 1-4 | Shasta Valley | Siskiyou | DWR Bull. 83, p. 31 ; USGS Water-Supply Paper 1484, Pl. 1; DWR Bull. 66-59, p. 22 | No | DWR Bull. 83, p. 31, Paragraph 5, "The main recharge ...Shasta River." Need to map alluvial valley. |
| North Coastal | 1-5 | Scott River Valley | Siskiyou | DWR Bull. 83, p. 31-32 ; DWR Bull. 66-59, p. 26 | Yes | DWR Bull. 83, p. 31, paragraph 5, "The main recharge ...Shasta River." |
| North Coastal | 1-6 | Hayfork Valley | Trinity | | No | Low/Limited Use. |
| North Coastal | 1-7 | Hoopaa Valley | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-8 | Mad River Valley | Humboldt | DWR Bull. 142-1, p. 239-253 ; DWR Bull. 66-59, p. 30, Mad River Valley Map | Yes | Basin divided into six areas; recharge through alluvium in all areas. |
| North Coastal | 1-9 | Eureka Plain | Humboldt | DWR Bull. 142-1, p. 232-253 ; DWR Bull. 66-59, p. 30, Mad River Valley Map | Yes | Subdivided into two areas (Salmon Creek-Elk River Area and Jacoby Creek-Freshwater Creek Areas). Recharge by infiltration and percolation on the Hookton and Carlotta Formations. Basin delineation modified by DWR comments 11/19/99, #4. |
| North Coastal | 1-10 | Eel River Valley | Humboldt | DWR Bull. 136, p. 19-22, Pl. 4 ; DWR Bull. 66-59, p. 38, Eel River Valley Map | Yes | Recharge through permeable soil types Basin delineation modified by DWR comments 11/19/99, #4. |
| North Coastal | 1-11 | Round Valley | Mendocino | USGS Water-Supply Paper 1548, p. 85-86, Pl. 3 ; DWR Bull. 66-60, Pl. 4 | No | Recharge through percolation of precipitation through stream channel and alluvial fans at valley margins to permeable deposits. Possible underflow from surrounding bedrock. Area too small for scale. |
| North Coastal | 1-12 | Laytonville Valley | Mendocino | | Yes | Delineation based on DWR comments, 11/24/99. |
| North Coastal | 1-13 | Little Lake Valley | Mendocino | USGS Water-Supply Paper 1548, p. 105-106, Pl. 6 | Yes | Recharge is principally through permeable stream channels and alluvial soils and fans. |
| North Coastal | 1-14 | Lower Klamath River Valley | Del Norte | | No | Low/Limited Use. |
| North Coastal | 1-15 | Happy Camp Town Area | Siskiyou | | No | Low/Limited Use. |
| North Coastal | 1-16 | Seiad Valley | Siskiyou | | No | Low/Limited Use. |
| North Coastal | 1-17 | Bray Town Area | Siskiyou | | No | Low/Limited Use. |
| North Coastal | 1-18 | Red Rock Valley | Siskiyou | | No | Low/Limited Use. |
| North Coastal | 1-19 | Anderson Valley | Mendocino | | Yes | Delineation based on DWR comments, 11/24/99 |
| North Coastal | 1-20 | Garcia River Valley | Mendocino | | Yes | Delineation based on DWR comments, 11/24/99 |

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| North Coastal | 1-21 | Fort Bragg Terrace Area | Mendocino | DWR Bull. 142-1, p. 258-280 | Yes | Located in the Mendocino Coast Hydrographic Unit. Recharge by infiltration of rainfall and surface runoff. INCLUDES PART OF BASINS 1-40 AND 1-45. Basin delineation modified by DWR comments of 11/24/99. |
| North Coastal | 1-22 | Fairchild Swamp Valley | Modoc | | No | Low/Limited Use. |
| North Coastal | 1-23 | Modoc Plateau Recent Volcanic Areas | Modoc, Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. Sparse population. |
| North Coastal | 1-24 | Modoc Plateau Pleistocene Volcanic Areas | Modoc, Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. Sparse population. |
| North Coastal | 1-25 | Prairie Creek Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-26 | Redwood Creek Valley | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-27 | Big Lagoon Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-28 | Mattole River Valley | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-29 | Honeydew Town Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-30 | Pepperwood Town Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-31 | Weott Town Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-32 | Garberville Town Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-33 | Larabee Valley | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-34 | Dinsmore Town Area | Humboldt | | No | Low/Limited Use. |
| North Coastal | 1-35 | Hyampom Valley | Trinity | | No | Low/Limited Use. |
| North Coastal | 1-36 | Hettenshaw Valley | Trinity | | No | Low/Limited Use. |
| North Coastal | 1-37 | Cottoneva Creek Valley | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-38 | Lower Laytonville Valley | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-39 | Branscomb Town Area | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-40 | Ten Mile River Valley | Mendocino | DWR Bull. 142-1, p. 258-280 | Yes | Located in the Mendocino Coast Hydrographic Unit. Recharge by infiltration of rainfall and surface runoff. PARTLY INCLUDED IN BASIN 1-21. |

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|-----------------------|---------------|---|---------------|--|------------------|---|
| North Coastal | 1-41 | Little Valley | Mendocino | DWR Bull. 142-1, p. 258-280 | No | Located in the Mendocino Coast Hydrographic Unit. Recharge by infiltration of rainfall and surface runoff. Area too small for scale. |
| North Coastal | 1-42 | Sherwood Valley | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-43 | Williams Valley | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-44 | Eden Valley | Mendocino | | No | Low/Limited Use. |
| North Coastal | 1-45 | Big River Valley | Mendocino | DWR Bull. 142-1, p. 258-280 | Yes | Located in the Mendocino Coast Hydrographic Unit. Recharge by infiltration of rainfall and surface runoff. PARTLY INCLUDED IN BASIN 1-21. |
| North Coastal | 1-46 | Navarro River Valley | Mendocino | DWR Bull. 142-1, p. 258-280 | No | Located in the Mendocino Coast Hydrographic Unit. Recharge by infiltration of rainfall and surface runoff. Area too small for scale. |
| North Coastal | 1-47 | Gualala River Valley | Mendocino | | No | Area too small for scale. |
| North Coastal | 1-48 | Gravelly Valley | Lake | | No | Low/Limited Use. |
| North Coastal | 1-49 | Anapolis Ohlson Ranch Formation Highlands | Sonoma | | No | Low/Limited Use. |
| San Francisco Bay | 2-1 | Petaluma Valley | Marin, Sonoma | DWR Bull. 118-4, v. 3, Fig. 7; USGS Water Supply Paper 1427 | Yes | Delineation based on DWR comments, 11/24/99. |
| San Francisco Bay | 2-2.01 | Napa Valley | Napa, Solano | USGS Water-Supply Paper 1495 | Yes | Delineation based on DWR comments, 11/24/99 |
| San Francisco Bay | 2-2.02 | Sonoma Valley | Sonoma | DWR Bull. 118-4, v. 4, Fig. 7; USGS Water-Supply Paper 1495 | Yes | Delineation based on DWR comments, 11/24/99 |
| San Francisco Bay | 2-3 | Suisun-Fairfield Valley | Solano | | No | No DWR or USGS references found. |
| San Francisco Bay | 2-4 | Pittsburg Plain | Contra Costa | | No | No DWR or USGS references found. |
| San Francisco Bay | 2-5 | Clayton Valley | Contra Costa | | No | No DWR or USGS references found. |
| San Francisco Bay | 2-6 | Ygnacio Valley | Contra Costa | | No | No DWR or USGS references found. |
| San Francisco Bay | 2-7 | San Ramon Valley | Contra Costa | | No | No DWR or USGS references found. |

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|-----------------------|---------------|-------------------|--|--|------------------|--|
| San Francisco Bay | 2-8 | Castro Valley | Alameda | | No | No DWR or USGS references found. |
| San Francisco Bay | 2-9 | Santa Clara Basin | Alameda, Contra Costa, Santa Clara, San Mateo | DWR Bull. 118-1, App A, p. 85, Pl. 11 | Yes | Confined/unconfined areas and primary recharge zones. |
| San Francisco Bay | 2-9.01 | East Bay Area | Alameda, Contra Costa | DWR Bull. 118-1, App A, Pl. 14; DWR Bull. 118-1, v. I-II; ACFCD 205(J) Report, Maslonkowski, 1984 | Yes | Recharge area for Niles Cone defined based on presence of Newark aquitard. |
| San Francisco Bay | 2-9.02 | South Bay Area | Santa Clara | SEEHRL Report No. 87-8/10, v. 10, p. 9, Fig. 1 (San Mateo Basin); DWR Bull. 118-1 v. III; Kleinfelder, 1988 | No | Confined areas referenced but not delineated. |
| San Francisco Bay | 2-10 | Livermore Valley | Alameda, Contra Costa | DWR Bull. 118-2, p. 37, Pl. 9A-9B | Yes | High infiltration areas defined based on aquitard thickness and soils. |
| San Francisco Bay | 2-11 | Sunol Valley | Alameda | DWR Bull. 118-2, p. 61, Pl. 9A-9B | Yes | High infiltration areas defined. |
| San Francisco Bay | 2-12 | McDowell Valley | Mendocino | | No | Low/Limited Use. |
| San Francisco Bay | 2-13 | Knights Valley | Sonoma | | No | Low/Limited Use. |
| San Francisco Bay | 2-14 | Potter Valley | Mendocino | USGS Water-Supply Paper 1548, p. 75-76, Pl. 2 | No | Recharge from precipitation in drainage basin, especially at valley margins. Also, infiltration from irrigation canals, laterals and fields with excess water. Area too small for scale. |
| San Francisco Bay | 2-15 | Ukiah Valley | Mendocino | USGS Water-Supply Paper 1548, p. 68, Pl. 2; DWR Bull. 66-59, p. 42 | Yes | Direct infiltration of rainfall and seepage loss from streams. Some recharge from streams and percolation of irrigation water. |
| San Francisco Bay | 2-16 | Sanel Valley | Mendocino | USGS Water-Supply Paper 1548, p. 58, Pl. 2; DWR Bull. 66-59, p. 47 | Yes | Recharge from infiltration from streams and percolation of rainfall. PARTLY INCLUDED WITH BASIN 2-15. |
| San Francisco Bay | 2-17.01 | Alexander Area | Sonoma | DWR Bull. 118-4, v. 5, p. 48; DWR Bull. 142-1; DWR Unnumbered Report (Thronson, 1963); USGS Water-Supply Paper 1548 | Yes | Entire valley has potential for high infiltration. Delineation based on DWR comments, 11/24/99. |
| San Francisco Bay | 2-17.02 | Cloverdale Area | Sonoma | | Yes | Entire valley has potential for high infiltration. Delineation based on DWR comments, 11/24/99. |
| San Francisco Bay | 2-18.01 | Santa Rosa Plain | Sonoma | DWR Bull. 118-4 v. 2, Fig. 7; USGS Water-Supply Paper 1427 | Yes | High infiltration areas defined based on Soil Conservation Service. Delineation based on DWR comments, 11/24/99. |

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|-----------------------|---------------|---------------------------------------|---------------|--|------------------|---|
| San Francisco Bay | 2-18.02 | Healdsburg Area | Sonoma | DWR Bull. 118-4, v. 5, p. 48 | Yes | Entire valley has potential for high infiltration. Delineation based on DWR comments, 11/24/99. |
| San Francisco Bay | 2-18.03 | Rincon Valley | Sonoma | | No | Low/Limited Use. |
| San Francisco Bay | 2-19 | Kenwood Valley | Sonoma | | No | No DWR references found. |
| San Francisco Bay | 2-20 | Lower Russian River Valley | Sonoma | | No | No DWR references found. |
| San Francisco Bay | 2-21 | Bodega Bay Area | Sonoma | | No | No DWR references found. |
| San Francisco Bay | 2-22 | Half Moon Bay Terrace | San Mateo | | No | No DWR references found. |
| San Francisco Bay | 2-23 | Napa-Sonoma Volcanic Highlands | Sonoma | | No | No DWR references found. |
| San Francisco Bay | 2-24 | San Gregorio Valley | San Mateo | | No | No DWR references found. |
| San Francisco Bay | 2-25 | Sebastopol Merced Formation Highlands | Marin, Sonoma | | No | No DWR references found. |
| San Francisco Bay | 2-26 | Pescadero Valley | San Mateo | | No | No DWR references found. |
| San Francisco Bay | 2-27 | Sand Point Area | Marin | | No | No DWR references found. |
| San Francisco Bay | 2-28 | Ross Valley | Marin | | No | No DWR references found. |
| San Francisco Bay | 2-29 | San Rafael Valley | Marin | | No | No DWR references found. |
| San Francisco Bay | 2-30 | Novato Valley | Marin | | No | No DWR references found. |
| San Francisco Bay | 2-31 | Arroyo Del Hambre Valley | Contra Costa | | No | No DWR references found. |

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|-----------------------|---------------|------------------------------|---------------------------|--|------------------|--|
| San Francisco Bay | 2-32 | Visitation Valley | San Francisco, San Mateo | | No | No DWR references found. |
| San Francisco Bay | 2-33 | Islais Valley | San Francisco | | No | No DWR references found. |
| San Francisco Bay | 2-34 | San Francisco Sand Dune Area | San Francisco | | No | No DWR references found. |
| San Francisco Bay | 2-35 | Merced Valley | San Francisco, San Mateo | | No | No DWR references found. |
| San Francisco Bay | 2-36 | San Pedro Valley | San Mateo | | No | No DWR references found. |
| Central Coastal | 3-1 | Soquel Valley | Santa Cruz | USGS Open-File Report 79-1065 | No | High infiltration areas defined. Areas too small for map scale. |
| Central Coastal | 3-2 | Pajaro Valley | Monterey, Santa Cruz | Richardson, et al, (1961) "San Felipe Division, Geology and Ground-Water Resources Appendix, Part IV", USBR Unnumbered Report, PI. 2, 3; USGS Open-File Report, Muir, June 1972, p. 14, Fig. 11; USGS Water-Res. Inv. 87-4281 | No | High infiltration areas defined. USBR Unnumbered Report, PI. 3 defines confined/unconfined zones. Areas too small for map scale. |
| Central Coastal | 3-3 | Gilroy-Hollister Valley | San Benito, Santa Clara | Richardson, et al, (1961) "San Felipe Division, Geology and Ground-Water Resources Appendix, Part IV", USBR Unnumbered Report, PI. 2, 3; DWR Bull. 118-1, v. 4 (Gilroy area); USGS Open-File Report, Fig. 5 (Hollister/San Juan area) | Yes | Confined/unconfined zones defined. |
| Central Coastal | 3-4 | Salinas Valley | Monterey | DWR Bull. 19, PI. 1; USGS Water-Res. Inv. 83-4049 | Yes | Confined/unconfined areas defined. |
| Central Coastal | 3-4.06 | Paso Robles Basin | Monterey, San Luis Obispo | DWR District Report (1979) "Groundwater in the Paso Robles Basin"; DWR Unnumbered Report (Gershon, March 1971) "Preliminary Evaluation of the Water Supply of Arroyo Grande & Paso Robles Areas"; DWR Bull. 18 | No | Generally confined, recharge areas not defined in reference. |
| Central Coastal | 3-4.08 | Seaside Area | Monterey | USGS Water-Res. Inv. 82-10, p. 10, Fig. 9 | No | High infiltration areas defined. Areas too small for map scale. |
| Central Coastal | 3-4.09 | Langley Area | Monterey | | No | Low/Limited Use. |
| Central Coastal | 3-4.10 | Corral de Tierra Area | Monterey | | No | Low/Limited Use. |
| Central Coastal | 3-5 | Cholame Valley | Monterey, San Luis Obispo | | No | No references found. |
| Central Coastal | 3-6 | Lockwood Valley | Monterey | | No | No references found. |
| Central Coastal | 3-7 | Carmel Valley | Monterey | USGS Water-Res. Inv. 83-4280, p. 12, Fig. 2; DWR Unnumbered Report (Meffley, July 1974), p. 1 | No | Highly permeable basin, apparent confinement in West. Areas too small for map scale. |

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| Central Coastal | 3-8 | Los Osos Valley | San Luis Obispo | DWR District Report (October 1973), p. 23, Fig. 2; DWR District Report (July 1989); DWR Bull. 63-6 | No | Largely confined, recharge in tributary canyons, areas not mapped in references. |
| Central Coastal | 3-9 | San Luis Obispo Valley | San Luis Obispo | | No | No references found. |
| Central Coastal | 3-10 | Pismo Creek Valley | San Luis Obispo | DWR Bull. 18, Pl. 2; DWR Bull. 63-3, p.15, Pl.3 | No | Largely confined, recharge areas not defined in reference. |
| Central Coastal | 3-11 | Arroyo Grande Valley-Nipoma Mesa Area | San Luis Obispo | DWR Bull. 18, Pl. 2; DWR Unnumbered Report (Gershon, March 1971) "Preliminary Evaluation of the Water Supply of Arroyo Grande & Paso Robles Areas"; DWR District Report (June 1979); DWR Bull. 74-9 | Yes | Largely confined, recharge areas adjacent to uplands, not delineated in reference. PARTLY INCLUDED WITH BASIN 3-12. |
| Central Coastal | 3-12 | Santa Maria River Valley | San Luis Obispo, Santa Barbara | USGS Water-Res. Inv. 85-4129, p.1, Fig. 2; DWR Bull. 63-3 | Yes | Confined/unconfined well delineated. |
| Central Coastal | 3-13 | Cuyama Valley Basin | Kern, San Luis Obispo, Santa Barbara, Ventura | | No | No references found. |
| Central Coastal | 3-14 | San Antonio Creek Valley (Vandenberg) | Santa Barbara | USGS Water-Res. Inv. 84-4340, p. 10, Fig. 1; USGS Open-File Report, Koehler, 1970; USGS Water-Supply Paper 1664; USGS Water-Res. Inv. 80-750 | Yes | Largely unconfined. |
| Central Coastal | 3-15 | Santa Ynez River Valley (Lompoc) | Santa Barbara | USGS Water-Res. Inv. 91-4172, Fig. 12; USGS Water-Supply Papers 1467, 1664 and 1107; USGS Water-Res. Inv. 84-4131 and 97-4056; USGS Open-File Report 76-183 | Yes | Confined area defined. |
| Central Coastal | 3-16 | Goleta Basin | Santa Barbara | USGS Water-Supply Paper 1108, p. 84, Pl. 5 and 9 | Yes | Confined, recharge areas defined. |
| Central Coastal | 3-17 | Santa Barbara Basin | Santa Barbara | USGS Water-Supply Paper 2197, p. 5, Table 1; USGS Water-Supply Papers 1108 and 1859-A; USGS Water-Res. Inv. 89-4017 | No | Largely confined, unconfined area not defined in reference. |
| Central Coastal | 3-18 | Carpinteria Basin | Santa Barbara | USGS Water-Supply Paper 1108, Pl. 4, p. 53 | Yes | Confined, recharge areas defined. |
| Central Coastal | 3-19 | Carrizo Plain | San Luis Obispo | | No | No references found. |
| Central Coastal | 3-20 | Ano Nuevo Area | San Mateo | | No | No references found. |
| Central Coastal | 3-21 | Santa Cruz Purisima Formation Highlands | Santa Cruz | USGS Water-Res. Inv. Open-File Report 79-1065 (North Central Highlands) | No | High infiltration areas defined. Areas too small for map scale. |
| Central Coastal | 3-22 | Santa Ana Valley | San Benito | | No | No references found. |
| Central Coastal | 3-23 | Upper Santa Ana Valley | San Benito | | No | No references found. |
| Central Coastal | 3-24 | Quien Sabe Valley | San Benito | | No | No references found. |

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| Central Coastal | 3-25 | Tres Pinos Creek Valley | San Benito | | No | No references found. |
| Central Coastal | 3-26 | West Santa Cruz Terrace | Santa Cruz | USGS Water-Res. Inv. Open-File Report 79-1065 | No | High infiltration areas defined. Areas too small for map scale. |
| Central Coastal | 3-27 | Scotts Valley | Santa Cruz | USGS Water-Res. Inv. 81-6, Fig. 4 | No | Unconfined aquifer, recharge through Santa Margarita Sandstone. Areas too small for map scale. |
| Central Coastal | 3-28 | San Benito River Valley | San Benito | | No | Low/Limited Use. |
| Central Coastal | 3-29 | Dry Lake Valley | San Benito | | No | Low/Limited Use. |
| Central Coastal | 3-30 | Bitter Water Valley | San Benito | | No | Low/Limited Use. |
| Central Coastal | 3-31 | Hernandez Valley | San Benito | | No | Low/Limited Use. |
| Central Coastal | 3-32 | Peach Tree Valley | San Benito | | No | Low/Limited Use. |
| Central Coastal | 3-33 | San Carpofofo Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-34 | Arroyo de la Cruz Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-35 | San Simeon Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-36 | Santa Rosa Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-37 | Villa Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-38 | Cayucos Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-39 | Old Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-40 | Toro Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-41 | Morro Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-42 | Chorro Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-43 | Rinconada Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-44 | Pozo Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-45 | Huasna Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-46 | Rafael Valley | San Luis Obispo | | No | Low/Limited Use. |
| Central Coastal | 3-47 | Bis Spring Area | San Luis Obispo | | No | Low/Limited Use. |

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| Central Coastal | 3-48 | Careaga Sand Highlands | Santa Barbara | | No | Low/Limited Use. |
| Central Coastal | 3-49 | Montecito Valley | Santa Barbara | | No | Low/Limited Use. |
| South Coastal | 4-1 | Upper Ojai Valley | Ventura | DWR Bull. 12, p. B-53, PI. 11 | No | Areas too small for map scale. |
| South Coastal | 4-2 | Ojai Valley | Ventura | DWR Bull. 12, p. B-53, PI. 11 | Yes | Generally unconfined. |
| South Coastal | 4-3 | Ventura River Valley | Ventura | DWR Bull. 12, p. B-55, B-58 and B-59, PI. 11 ; DWR Bull. 63-1 | No | Eastern portion unconfined, west confined. |
| South Coastal | 4-4 | Santa Clara River Valley (incl. Oxnard Plain) | Ventura | DWR Bull. 12, Table 11, PI. 11 ; DWR Bull. 63-1, p. 104-8 | Yes | Forebay well defined. |
| South Coastal | 4-4.07 | Santa Clara River Valley Eastern Basin | Los Angeles | | No | Low/Limited Use. |
| South Coastal | 4-5 | Acton Valley | Los Angeles | | No | No references found. |
| South Coastal | 4-6 | Pleasant Valley | Ventura | DWR Bull. 12, p. B-93, Table 11 | No | Confined basin. |
| South Coastal | 4-7 | Arroyo Santa Rosa Valley | Ventura | DWR Bull. 12, p. B-118, PI. 11 | No | Deep aquifers confined. |
| South Coastal | 4-8 | Los Posas Valley | Ventura | DWR Bull. 12, p. B-105, PI. B-1C | Yes | High Infiltration area well defined. |
| South Coastal | 4-9 | Simi Valley | Ventura | DWR Bull. 12, p. B-99, PI. 11, 12-C ; DWR Bull. 74-9 | Yes | Eastern portion unconfined, west confined. |
| South Coastal | 4-10 | Conejo Valley | Ventura | DWR Bull. 12, p. B-111, PI. 11, Table B-3 | Yes | Unconfined volcanic basin. COMBINED WITH BASINS 4-19 AND 4-21. |
| South Coastal | 4-11 | Coastal Plain - Los Angeles Co. | Los Angeles | DWR Bull. 104, App A, PI. 8A-8B ; USGS Water-Supply Paper 1461, PI. 3 | Yes | Potentially rapid infiltration was delineated where the upper confining layer known as the Bellflower aquiclude is absent. An area known as Ballona Gap was also designated as potentially rapid infiltration zone, based on a geologic cross-section C-C'. |
| South Coastal | 4-12 | San Fernando Valley Basin | Los Angeles | State Water Rights Board, "Report of Referee...City of Los Angeles vs. City of San Fernando..." No. 650079, (Finlayson, et al, July 1962) | Yes | Eastern part of valley with medium to high infiltration rate delineated. Areas in western part of valley delineated based on surface soil properties and geologic cross-sections A/A'-D/D', M/M'. |
| South Coastal | 4-13 | San Gabriel Basin | Los Angeles | DWR Bull. 104-2, PI. 9A, 9B, 14 ; Dept. of Public Work, "Report of Referee...City of Pasadena vs. City of Alhambra..." No. Pasadena C-1323, (Conklin, et al, 1943), p. 37-78, 126-137, PI. 5 (well logs), PI. 6 (areal geology) | Yes | Infiltration rates >1 in/hr mapped as rapid infiltration zones per DWR Bull. 104-2. Potentially rapid infiltration zones in Raymond sub-basin were delineated by younger alluvium associated with drainage channels and recharge fields |
| South Coastal | 4-14 | Upper Santa Ana Valley | Los Angeles | | Yes | PARTLY INCLUDED WITH BASIN 8-2 |
| South Coastal | 4-15 | Tierra Rejada | Ventura | DWR Bull. 12, p. B-114, PI. 11, Table B-3 | No | Unconfined volcanic basin. Area too small for scale. |
| South Coastal | 4-16 | Hidden Valley | Ventura | | No | Low/Limited Use. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|---------------------------------------|----------------------|--|------------------|---|
| South Coastal | 4-17 | Lockwood Valley | Ventura | | No | Low/Limited Use. |
| South Coastal | 4-18 | Hungry Valley | Los Angeles, Ventura | | No | Low/Limited Use. |
| South Coastal | 4-19 | Thousand Oaks Area | Ventura | DWR Bull. 12, p. B-111, Pl. 11, Table B-3 | Yes | PARTLY INCLUDED WITH BASIN 4-10. |
| South Coastal | 4-20 | Russell Valley | Los Angeles, Ventura | DWR Bull. 12, p. B-111, Pl. 11, Table B-3 | No | Low/Limited Use. Only Ventura County portion delineated. Primarily unconfined volcanics with some thin alluvium along streams. |
| South Coastal | 4-21 | Conejo-Tierra Rejada Volcanic Areas | Los Angeles, Ventura | DWR Bull. 12, p. B-111, Pl. 11, Table B-3 | Yes | PARTLY INCLUDED WITH BASIN 4-10. |
| South Coastal | 4-22 | Malibu Valley | Los Angeles | | No | Low/Limited Use. |
| Sacramento Basin | 5-1 | Goose Lake Valley | Modoc | DWR Bull. 98, v. 1, p. 79-80, 83; v. 2, Pl. 4; DWR Bull. 66-60, Part I | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-2 | Alturas Basin | Modoc | DWR Bull. 98, v. 1, p. 98-99, 102-103; v. 2, Pl. 8; DWR Bull. 66-60, Part I | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-2.01 | South Fork Pit River and Alturas Area | Modoc | DWR Bull. 98, v. 1, p. 102, 104-105; v. 2, Pl. 8; DWR Bull. 66-60, Part I | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-2.02 | Warm Springs Valley | Modoc | DWR Bull. 98, v. 1, p. 102, 105-106; v. 2, Pl. 8; DWR Bull. 66-60, Part I | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-3 | Jess Valley | Modoc | DWR Bull. 98, v. 2, Pl. 7, 8, 9 | Yes | Basin described as volcanic but actually alluvium. |
| Sacramento Basin | 5-4 | Big Valley | Lassen, Modoc | DWR Bull. 98, v. 1, p. 116-121; v. 2, Pl. 10, 11 | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-5 | Fall River Valley | Lassen, Shasta | DWR Bull. 98, v. 1, p. 133, 138-140; v. 2, Pl. 14, 15 | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-6 | Redding Basin | Shasta, Tehama | DWR Bull. 22; App E-P, p. 32, 348-351, 354, Pl. N-1, Sheet 2 of 2 | Yes | The highest permeability exists in the southeast portion of the of the basin where Tuscan volcanic gravels occur in large amounts. Generally, alluvium is so thin that it is of little significance in regard to movement of storage of ground water. |
| Sacramento Basin | 5-7 | Lake Almanor Valley | Plumas | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-8 | Mountain Meadows Valley | Lassen | | No | Low/Limited Use. |
| Sacramento Basin | 5-9 | Indian Valley | Plumas | | No | Low/Limited Use. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|--------------------------------------|---------------|---------------------------------|---|---|------------------|--|
| Sacramento Basin | 5-10 | American Valley | Plumas | | No | Low/Limited Use. |
| Sacramento Basin | 5-11 | Mohawk Valley | Plumas | DWR Bull. 98, v. 1, p. 155-157; v. 2, Pl. 17, 18 | Yes | Upland deposits are at best "moderately" permeable. Morainal deposits along southwest border have high water content and are locally permeable. Shallow unconfined area in valley. |
| Sacramento Basin | 5-12 | Sierra Valley | Plumas, Sierra | DWR Bull. 98, v. 1, p. 155-157; v. 2, Pl. 17, 19 | Yes | Upland recharge areas exist in the upper portion of alluvial fans. Minor infiltration through the lava also flows valleyward. Shallow unconfined area in valley. |
| Sacramento Basin | 5-13 | Upper Lake Valley | Lake | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-14 | Scott Valley | Lake | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-15 | Kelseyville Valley (Big Valley) | Lake | | No | Low/Limited Use. |
| Sacramento Basin | 5-16 | High Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 70 | Yes | Recharge from infiltration of precipitation on the drainage area. |
| Sacramento Basin | 5-17 | Burns Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 61 | Yes | Recharge from infiltration of precipitation on the drainage area. |
| Sacramento Basin | 5-18 | Coyote Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 43 | Yes | Recharge in part from infiltration of precipitation on the drainage area and also from outflow of Collayomi and Long Valleys. |
| Sacramento Basin | 5-19 | Collayomi Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 36 | Yes | Recharge from infiltration of precipitation on the drainage area. |
| Sacramento Basin | 5-20 | Berryessa Valley | Napa | DWR Bull. 99, p. 89-95 | No | Recharge from infiltration of precipitation on the drainage area and seepage from adjoining hillsides. Areas too small for scale. |
| Sacramento Basin / San Joaquin Basin | 5-21 | Sacramento Valley | County # 4, 6, 11, 31, 34, 48, 51, 52, 57, 58 / County # 34, 48, 57 | DWR Bull. 118-6, Fig. 5; USGS Prof. Paper 1401-A,B,C,D; DWR Bull. 133 | Yes | "Areas having few barriers to vertical flow" per DWR Bull. 118-6, Fig. 5, were delineated as having highest potential infiltration/recharge. Basin delineation modified by DWR comments 11/19/99, #1, #2, and #3, and DWR comments 11/24/99. |
| San Joaquin Basin | 5-22 | San Joaquin Valley | County # 1, 7, 10, 15, 16, 20, 24, 34, 39, 50, 54 | USGS Prof. Paper 1401-A, 1401-C, Pl. 5, and 1401-D; USGS Open-File Report "Ground-Water Geology and Hydrology of the Kern River Alluvial Fan Area, Ca"; DWR Bull. 89, p. 33-37 | Yes | Areas delineated as highest "susceptibility" based on absence of so-called Corcoran Clay which impedes vertical flow from shallow groundwater to deeper, higher quality drinking water production zones across much of the San Joaquin Valley. |
| San Joaquin Basin | 5-23 | Panoche Valley | San Benito | | No | Low/Limited Use. |
| San Joaquin Basin | 5-24 | Squaw Valley | Fresno | | No | Low/Limited Use. |
| San Joaquin Basin | 5-25 | Kern River Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-26 | Walker Basin Creek Valley | Kern | | No | Low/Limited Use. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|--|---------------------------------|---|------------------|---|
| San Joaquin Basin | 5-27 | Cummings Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-28 | Tehachapi Valley West | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-29 | Castaic Lake Valley | Kern | | No | Low/Limited Use. |
| Sacramento Basin | 5-30 | Lower Lake Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 56 | Yes | Recharge from infiltration of precipitation on the Cache Formation outcrop area. |
| Sacramento Basin | 5-31 | Long Valley | Lake | USGS Water-Supply Paper 1297, Pl. 1, p. 73 | Yes | Recharge from percolation of precipitation and streams. |
| Sacramento Basin | 5-32 | Modoc Plateau Recent Volcanic Areas | Lassen, Modoc, Shasta, Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-33 | Modoc Plateau Pleistocene Volcanic Areas | Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-34 | Mount Shasta Area | Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-35 | McCloud Area | Siskiyou | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-36 | Round Valley | Modoc | DWR Bull. 98, v. 1, p. 116-121; v. 2, Pl. 11 | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable, but volcanic recharge areas not included. |
| Sacramento Basin | 5-37 | Toad Well Area | Siskiyou | | No | Low/Limited Use. |
| Sacramento Basin | 5-38 | Pondosa Town Area | Shasta, Siskiyou | | No | Low/Limited Use. |
| Sacramento Basin | 5-39 | Fandango Valley | Modoc | | No | Low/Limited Use. |
| Sacramento Basin | 5-40 | Hot Spring Valley | Lassen, Modoc, Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-41 | Egg Lake Valley | Modoc | | No | Low/Limited Use. |
| Sacramento Basin | 5-42 | Bucher Swamp Valley | Modoc | | No | Low/Limited Use. |
| Sacramento Basin | 5-43 | Rocky Prairie Valley | Modoc | | No | Low/Limited Use. |
| Sacramento Basin | 5-44 | Long Valley | Lassen, Modoc | | No | Low/Limited Use. |
| Sacramento Basin | 5-45 | Cayton Valley | Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-46 | Lake Britton Area | Shasta | | No | Low/Limited Use. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|---|-----------------------|---|------------------|---|
| Sacramento Basin | 5-47 | Goose Valley | Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-48 | Burney Creek Valley | Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-49 | Dry Burney Creek Valley | Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-50 | North Fork Battle Creek Valley | Shasta | | No | Low/Limited Use. |
| Sacramento Basin | 5-51 | Butte Creek Valley | Lassen | | No | Low/Limited Use. |
| Sacramento Basin | 5-52 | Gray Valley | Lassen | | No | Low/Limited Use. |
| Sacramento Basin | 5-53 | Dixie Valley | Lassen | | No | Low/Limited Use. |
| Sacramento Basin | 5-54 | Ash Valley | Lassen | | No | Low/Limited Use. |
| Sacramento Basin | 5-55 | Sacramento Valley Eastside Tuscan Formation Highlands | Butte, Plumas, Tehama | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-56 | Yellow Creek Valley | Plumas | | No | Low/Limited Use. |
| Sacramento Basin | 5-57 | Last Chance Creek Valley | Plumas | | No | Low/Limited Use. |
| Sacramento Basin | 5-58 | Clover Valley | Plumas | | No | Low/Limited Use. |
| Sacramento Basin | 5-59 | Grizzly Valley | Plumas | | No | Low/Limited Use. |
| Sacramento Basin | 5-60 | Humbug Valley | Plumas | DWR Bull. 98, v. 1, p. 155-157, v. 2, Pl. 17, 18 | Yes | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. |
| Sacramento Basin | 5-61 | Chrome Town Area | Glenn | | No | Low/Limited Use. |
| Sacramento Basin | 5-62 | Elk Creek Area | Glenn | | No | Low/Limited Use. |
| Sacramento Basin | 5-63 | Stonyford Town Area | Colusa, Glenn | | No | Low/Limited Use. |
| Sacramento Basin | 5-64 | Bear Valley | Colusa | | No | Low/Limited Use. |
| Sacramento Basin | 5-65 | Little Indian Valley | Lake | | No | Low/Limited Use. |
| Sacramento Basin | 5-66 | Clear Lake Cache Formation Highlands | Lake | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|------------------------------|----------------------|----------------------------------|---------------|--|-------------------------|--|
| Sacramento Basin | 5-67 | Clear Lake Pleistocene Volcanics | Lake | | No | Mappable, but volcanic recharge areas (fracture flow) not included. |
| Sacramento Basin | 5-68 | Pope Valley | Lake | | No | Low/Limited Use. |
| San Joaquin Basin | 5-69 | Yosemite Valley | Mariposa | | No | Low/Limited Use. |
| San Joaquin Basin | 5-70 | Los Banos Creek Valley | Merced | | No | Low/Limited Use. |
| San Joaquin Basin | 5-71 | Vallecitos Creek Valley | San Benito | | No | Low/Limited Use. |
| San Joaquin Basin | 5-72 | Cedar Grove Area | Fresno | | No | Low/Limited Use. |
| San Joaquin Basin | 5-73 | Three Rivers Area | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-74 | Springville Area | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-75 | Templeton Mountain Area | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-76 | Manache Meadows Area | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-77 | Sacator Canyon Valley | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-78 | Rockhouse Meadow Valley | Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-79 | Inns Valley | Kern, Tulare | | No | Low/Limited Use. |
| San Joaquin Basin | 5-80 | Brite Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-81 | Bear Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-82 | Cuddy Canyon Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-83 | Cuddy Ranch Area | Kern, Ventura | | No | Low/Limited Use. |
| San Joaquin Basin | 5-84 | Cuddy Valley | Kern | | No | Low/Limited Use. |
| San Joaquin Basin | 5-85 | Mill Potrero Area | Kern | | No | Low/Limited Use. |
| North Lahontan | 6-1 | Surprise Valley | Lassen, Modoc | DWR Bull. 98, v. 1, p. 172; v. 2, Pl. 21, 22; DWR Bull. 66-60 | No | Upland recharge on west side of valley from surface water into apexes of alluvial fans along base of Warner Mtns and extensive recharge areas along eastern side of valley as shown on Pl. 22, DWR Bull. 98. Mappable but volcanic areas not included. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|------------------------------|----------------------|--------------------------------|---------------|--|-------------------------|---|
| North Lahontan | 6-2 | Madeline Plains | Lassen | DWR Bull. 98, v. 1, p. 188; v. 2, Pl. 24, 25; DWR Bull. 66-60 | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. Mappable but volcanic areas not included. |
| North Lahontan | 6-3 | Willow Creek Valley | Lassen | DWR Bull. 98, v. 1, p. 200; v. 2, Pl. 27, 28; DWR Bull. 66-60 | No | Upland recharge areas consist of permeable lava flows. Infiltration through the lava then percolation valleyward. |
| North Lahontan | 6-4 | Honey Lake Valley | Lassen | DWR Bull. 98, v. 1, p. 213, v. 2, Pl. 31; DWR Bull. 66-60, Pl. 19; DWR Memorandum to Mr. James Welsh | No | Upland recharge area consists of permeable lava flows with percolation valleyward. Some subsurface inflow may enter from Secret Valley. Hot water encountered in some wells indicate considerable recharge from magma sources (DWR Memorandum). Mappable but volcanic areas not included. |
| North Lahontan | 6-5.01 | Tahoe Valley South | El Dorado | USGS Water-Res. Inv. Report 97-4072, p. 20-25, Fig. 6; USGS Open-File Report (Crippen and Pavelka, 1969), p. 15-18, Fig. 7; CDMG Geologic Map, Walker Lake, Sacramento, Chico sheets | Yes | Delineated as a potentially rapid infiltration zone. Recharge is primarily from infiltration of precipitation into faults and fractures in bedrock, into soil and decomposed granite that overlies much of the bedrock. |
| North Lahontan | 6-5.02 | Tahoe Valley North | Placer | USGS Water-Res. Inv. Report 97-4072, Fig 6; USGS Open-File Report (Crippen and Pavelka, 1969), p. 15-18, Fig. 7; CDMG Geologic Map, Walker Lake, Sacramento, Chico sheets | Yes | Alluvial fill of high hydraulic permeability delineated as a potentially rapid infiltration zone. Recharge is primarily from infiltration of precipitation into faults and fractures in bedrock, into soil and decomposed granite that overlies much of the bedrock. |
| North Lahontan | 6-6 | Carson Valley | Alpine | USGS Water-Res. Inv. 86-4328, p. 17-46, Fig. 1, 7, 8, 13; CDMG Geologic Map, Walker Lake sheet | Yes | The western part of the valley was delineated as a potentially rapid infiltration zone. The area includes alluvial fans and associated drainage channels of the Sierra Nevada eastern slopes. |
| North Lahontan | 6-7 | Antelope Valley (Topaz Valley) | Mono | USDA Report (1969) "Water and Related Resources, Central Lahontan Basin, Walker River Sub-Basin, Nevada-California", p. 13, 54-59, General Geologic Map, General Soil Map; Price, et al. (1983) "Groundwater-Surface Water Interaction at Topaz Lake, Nevada", p. 35-39 | Yes | Delineated as a potentially rapid infiltration zone. INCLUDES PART OF BASIN 6-106. |
| North Lahontan | 6-8 | Bridgeport Valley | Mono | DWR Unnumbered Report, "Bridgeport Valley Groundwater Investigation" (1960), p. 5-16, Pl. 2; USDA Report, p. 13, 54-59; CDMG Geologic Map, Walker Lake sheet | Yes | Alluvial fill was delineated as a potentially rapid infiltration zone. |
| South Lahontan | 6-9 | Mono Valley | Mono | DWR Bull. 106-1, p. 91-97, Fig. 1; Winkler (1977) "An Ecological Study of Mono Lake, California", p. 18-23, Fig. 2-8, 2-9 | Yes | Area west and south of the Mono Lake is delineated as a potentially rapid infiltration zone. This area of the basin is filled with quaternary coarse alluvial deposits and is a recharge zone for runoff from the Sierra Nevada. |
| South Lahontan | 6-10 | Adobe Lake Valley | Mono | DWR Bull. 106-1, p. 101-104, Fig. 2; CDMG Geologic Map, Mariposa sheet | Yes | Quaternary alluvium within the basin was delineated as a potentially rapid infiltration zone. |
| South Lahontan | 6-11 | Long Valley | Mono | DWR Bull. 106-1, p. 107-112, Fig. 3; CDMG Geologic Map, Mariposa sheet | Yes | Quaternary alluvium within the basin was delineated as a potentially rapid infiltration zone. |
| South Lahontan | 6-12 | Owens Valley | Inyo, Mono | DWR Bull. 106-1, p. 113-121, Fig. 4; USGS Water-Supply Paper 2370-B, Pl. 1, p. 59-73 | Yes | Owens River flood-plain deposits and west of the river to the basin boundary along Sierra Nevada foothills delineated as a rapid infiltration zone. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|------------------------|----------------------|---|------------------|--|
| South Lahontan | 6-13 | Black Springs Valley | Inyo | DWR Bull. 106-1, p. 113-121, Fig. 4; USGS Water-Supply Paper 2370-B | Yes | PARTLY INCLUDED WITH BASIN 6-12. |
| South Lahontan | 6-14 | Fish Lake Valley | Inyo, Mono | DWR Bull. 106-1, p. 135-137, Fig 6; CDMG Geologic Map, Mariposa sheet | Yes | Quaternary alluvium along foothills of the White Mountains was delineated as a potentially rapid infiltration zone. |
| South Lahontan | 6-15 | Deep Springs Valley | Inyo | DWR Bull. 106-1, p. 141-144, Fig 7; CDMG Geologic Map, Mariposa sheets | Yes | Quaternary alluvium was delineated as a potentially rapid infiltration area. |
| South Lahontan | 6-16 | Eureka Valley | Inyo | DWR Bull. 106-1, p. 145-148, Fig 8; CDMG Geologic Map, Mariposa sheet | Yes | Quaternary alluvium was delineated as a potentially rapid infiltration area. |
| South Lahontan | 6-17 | Saline Valley | Inyo | DWR Bull. 106-1, p. 149-152, Fig 9; CDMG Geologic Map, Death Valley sheet | Yes | Limited development. Areas delineated as a potentially rapid infiltration zones include alluvial deposits of Willow Creek, Waucabe Wash, Palm Springs and Upper Warm Spring. |
| South Lahontan | 6-18 | Death Valley | Inyo, San Bernardino | DWR Bull. 106-1, p. 155-159, Fig 10; CDMG Geologic Map, Death Valley sheet | Yes | There are few areas with permanent residences and tourist facilities where either ground water or springs are the only water supply resources. Potentially rapid infiltration zones were delineated to where there is ground water usage within the valley. |
| South Lahontan | 6-19 | Wingate Valley | Inyo, San Bernardino | DWR Bull. 106-1, p.163-164, Fig. 11 | No | Low/Limited Use basin. Military use only. |
| South Lahontan | 6-20 | Middle Amargosa Valley | Inyo, San Bernardino | DWR Bull. 106-1, p. 167-171, Fig. 12; CDMG Geologic Map, Death Valley sheet | Yes | Areas of potentially rapid infiltration are quaternary alluvium (except Lake Deposit) and alluvial fans along the Amargosa River channel. |
| South Lahontan | 6-21 | Lower Kingston Valley | San Bernardino | DWR Bull. 106-1 | No | Undeveloped. |
| South Lahontan | 6-22 | Upper Kingston Valley | San Bernardino | DWR Bull. 106-1 | No | Undeveloped. |
| South Lahontan | 6-23 | Riggs Valley | San Bernardino | DWR Bull. 106-1, p. 183-185, Fig. 15 | No | Undeveloped. |
| South Lahontan | 6-24 | Red Pass Valley | San Bernardino | DWR Bull. 106-1, p. 187-188, Fig. 16 | No | Undeveloped. |
| South Lahontan | 6-25 | Bicycle Valley | San Bernardino | DWR Bull. 106-1, p.191-193, Fig. 17 | No | Undeveloped. |
| South Lahontan | 6-26 | Avawatz Valley | San Bernardino | | No | Low/Limited Use. |
| South Lahontan | 6-27 | Leach Valley | San Bernardino | DWR Bull. 106-1, p. 195-197, Fig. 18 | No | Undeveloped. |
| South Lahontan | 6-28 | Pahrump Valley | Inyo | DWR Bull. 106-1, p. 213-216, Fig. 22; USGS Water-Supply Paper 2279, p. 10-18, Fig. 3,4,5, Pl. 1; CDMG Geologic Map, Death Valley sheet | Yes | Only California's side of the Pahrump valley has been delineated. Alluvial fan deposits (fanglomerates) between lacustrine deposits underlying center of the valley and mountains slope to the west were delineated as potentially rapid infiltration zones. |
| South Lahontan | 6-29 | Mesquite Valley | Inyo, San Bernardino | DWR Bull. 106-1, p. 221-226, Fig. 23 | No | Undeveloped. |
| South Lahontan | 6-30 | Ivanpah Valley | San Bernardino | DWR Bull. 106-1, p. 231-235, Fig. 24 | No | Undeveloped. |
| South Lahontan | 6-31 | Kelso Valley | San Bernardino | DWR Bull. 106-1, p. 241-243, Fig. 25 | No | Undeveloped. |

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| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|----------------------------|-----------------------------------|---|------------------|---|
| South Lahontan | 6-32 | Broadwell Valley | San Bernardino | DWR Bull. 106-1, p. 245-247, Fig. 26 | No | Undeveloped. |
| South Lahontan | 6-33 | Soda Lake Valley | San Bernardino | DWR Bull. 106-1, p. 249-252, Fig. 27 | No | Undeveloped. |
| South Lahontan | 6-34 | Silver Lake Valley | San Bernardino | DWR Bull. 106-1, p. 255-257, Fig. 28 | No | Undeveloped. |
| South Lahontan | 6-35 | Cronise Valley | San Bernardino | DWR Bull. 106-1, p. 259-262, Fig. 29 | No | Undeveloped. |
| South Lahontan | 6-36 | Langford Valley | San Bernardino | DWR Bull. 106-1, p. 265-267, Fig. 30 | No | Undeveloped. |
| South Lahontan | 6-37 | Coyote Lake Valley | San Bernardino | DWR Bull. 106-1, p. 269-272, Fig. 31 | No | Undeveloped. |
| South Lahontan | 6-38 | Caves Canyon Valley | San Bernardino | DWR Bull. 106-1, p. 275-277, Fig. 32 | No | Undeveloped. |
| South Lahontan | 6-39 | Troy Valley | San Bernardino | DWR Bull. 106-1, p. 279-282, Fig. 33 | No | Undeveloped. |
| South Lahontan | 6-40 | Lower Mojave River Valley | San Bernardino | DWR Bull. 106-1, p. 285-293, Fig. 34 ; DWR Bull. 84, Pl. 2, 3, 4, Chapter II, III, V | Yes | River channel deposits and dune sand and older alluvium adjacent to the channel of the Mojave River were delineated as a potentially rapid infiltration zone within Mojave River Valley. |
| South Lahontan | 6-41 | Middle Mojave River Valley | San Bernardino | DWR Bull. 106-1, p. 299-304, Fig. 35 ; DWR Bull. 84, Pl. 2, 3, 4, Chapter II, III, V | Yes | River channel deposits and dune sand and older alluvium adjacent to the channel of the Mojave River were delineated as a potentially rapid infiltration zone within Mojave River Valley. |
| South Lahontan | 6-42 | Upper Mojave River Valley | San Bernardino | DWR Bull. 106-1, p. 307-313, Fig. 36 ; DWR Bull. 84, Pl. 2, 3, 4, Chapter II, III, V | Yes | River channel deposits and dune sand and older alluvium adjacent to the channel of the Mojave River were delineated as a potentially rapid infiltration zone within Mojave River Valley. |
| South Lahontan | 6-43 | El Mirage Valley | San Bernardino | DWR Bull. 106-1, p. 317-320, Fig. 37 | No | Undeveloped. |
| South Lahontan | 6-44 | Antelope Valley | Kern, Los Angeles, San Bernardino | DWR Bull. 106-1, p. 323-332, Fig. 38 ; USGS Water-Res. Inv. 93-4141, p. 8-13, Fig. 5 | Yes | A confining clayey layer within the Lancaster sub-basin above which there is shallow, semi-perched ground water is delineated as a potentially rapid infiltration zone because it is recharging a deeper aquifer in the area. |
| South Lahontan | 6-45 | Tehachapi Valley East | Kern | DWR Bull. 106-1 | No | Low/Limited Use basin. |
| South Lahontan | 6-46 | Fremont Valley | Kern | DWR Bull. 106-1, p. 345-356, Fig. 40 ; CDMG Geologic Map, Trona sheet; SAMDA, Inc. "Draft, Initial Study/Proposed Negative Declaration SAMDA Water Exploration...", Appendices | Yes | Alluvium and alluvial fans deposits north of Cantil Valley fault (flow barrier) were delineated as a potentially rapid infiltration zone in the valley. |
| South Lahontan | 6-47 | Harper Valley | Kern, San Bernardino | DWR Bull. 106-1, p. 357-361, Fig. 41 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-48 | Goldstone Valley | San Bernardino | DWR Bull. 106-1, p. 365-367, Fig. 42 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-49 | Superior Valley | San Bernardino | DWR Bull. 106-1, p. 369-371, Fig. 43 | No | Low/Limited Use basin. Low population. |

Documentation Table for Statewide Maps Showing Hydrogeologically Vulnerable Areas

| Hydrologic Study Area | DWR Basin No. | Basin Name | County | References (Primary References in Bold) | Included in Map? | Justification / Comments (Primary Source: DWR Bulletin 118 v.1975) |
|-----------------------|---------------|--------------------------------|----------------------------|--|------------------|--|
| South Lahontan | 6-50 | Cuddeback Valley | San Bernardino | DWR Bull. 106-1, p. 373-376, Fig. 44 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-51 | Pilot Knob Valley | San Bernardino | DWR Bull. 106-1, p. 379-381, Fig. 45 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-52 | Searles Valley | Inyo, Kern, San Bernardino | DWR Bull. 106-1, p. 383-388, Fig. 46 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-53 | Salt Wells Valley | San Bernardino | DWR Bull. 106-1, p. 391-394, Fig. 47 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-54 | Indian Wells Valley | Inyo, Kern, San Bernardino | USGS Hydrologic Investigations Atlas, Dutcher, et al, (1968), "Geohydrologic Features of Indian Wells Valley, California", p. 12-16, Fig. 3; DWR Bull. 106-1, p. 397-401, Fig. 48; CDMG Geologic Map, Trona sheet | Yes | Alluvial fans and Recent alluvium within the western part of the valley where most of the ephemeral streams flow occur were delineated as a potential rapid infiltration zone. |
| South Lahontan | 6-55 | Coso Valley | Inyo | DWR Bull. 106-1, p. 407-409, Fig. 49 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-56 | Rose Valley | Inyo | DWR Bull. 106-1, p. 411-413, Fig. 50 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-57 | Darwin Valley | Inyo | DWR Bull. 106-1, p. 415-418, Fig. 51 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-58 | Panamint Valley | Inyo | DWR Bull. 106-1, p. 421-425, Fig. 52 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-59 | Granite Mountain Area | Mono | | No | No DWR or USGS references found. |
| South Lahontan | 6-60 | Fish Slough Valley | Inyo, Mono | | No | No DWR or USGS references found. |
| South Lahontan | 6-61 | Cameo Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-62 | Race Track Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-63 | Hidden Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-64 | Marble Canyon Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-65 | Cottonwood Springs Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-66 | Lee Flat | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-67 | Martis Valley (Truckee Valley) | Nevada, Placer | | No | No DWR or USGS references found. |
| South Lahontan | 6-68 | Santa Rosa Flat | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-69 | Kelso Lander Valley | Kern | DWR Bull. 106-1, p. 429-430, Fig. 53 | No | Low/Limited Use basin. |
| South Lahontan | 6-70 | Cactus Flat | Inyo | | No | No DWR or USGS references found. |

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|-----------------------|---------------|---------------------------|----------------------|---|------------------|---|
| South Lahontan | 6-71 | Lost Lake Valley | San Bernardino | | No | No DWR or USGS references found. |
| South Lahontan | 6-72 | Coles Flat | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-73 | Wild Horse Mesa Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-74 | Harrisburg Flats | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-75 | Wildrose Canyon | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-76 | Brown Mountain Valley | San Bernardino | DWR Bull. 106-1, p. 433-435, Fig. 54 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-77 | Grass Valley | San Bernardino | DWR Bull. 106-1, p. 437-438, Fig. 55 | No | Unused, military only. |
| South Lahontan | 6-78 | Denning Spring Valley | San Bernardino | | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-79 | California Valley | Inyo, San Bernardino | DWR Bull. 106-1, p. 207-209, Fig. 21 | No | Low/Limited Use basin. Low population. |
| South Lahontan | 6-80 | Middle Park Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-81 | Butte Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-82 | Spring Canyon Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-83 | Furnace Creek Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-84 | Greenwater Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-85 | Gold Valley | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-86 | Rhodes Hill Area | Inyo | | No | No DWR or USGS references found. |
| South Lahontan | 6-87 | Butterbread Canyon Valley | Kern | | No | No DWR or USGS references found. |
| South Lahontan | 6-88 | Owl Lake Valley | San Bernardino | | No | No DWR or USGS references found. |
| South Lahontan | 6-89 | Kane Wash Area | San Bernardino | | No | No DWR or USGS references found. |
| South Lahontan | 6-90 | Cady Fault Area | San Bernardino | | No | No DWR or USGS references found. |
| North Lahontan | 6-91 | Cow Head Lake Valley | Modoc | | No | No DWR or USGS references found. |
| North Lahontan | 6-92 | Pine Creek Valley | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-93 | Harvey Valley | Lassen | | No | No DWR or USGS references found. |

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|-----------------------|---------------|--|---------------------------|--|------------------|---|
| North Lahontan | 6-94 | Grasshopper Valley | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-95 | Dry Valley | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-96 | Eagle Lake Area | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-97 | Horse Lake Valley | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-98 | Tuledad Canyon Area | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-99 | Painters Flat | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-100 | Secret Valley | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-101 | Bull Flat | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-102 | Modoc Plateau Recent Volcanic Areas | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-103 | Modoc Plateau Pleistocene Volcanic Areas | Lassen | | No | No DWR or USGS references found. |
| North Lahontan | 6-104 | Long Valley | Lassen, Sierra | | No | No DWR or USGS references found. |
| North Lahontan | 6-105 | Slinkard Valley | Mono | | No | No DWR or USGS references found. |
| North Lahontan | 6-106 | Little Antelope Valley | Mono | | Yes | No DWR or USGS references found. PARTLY INCLUDED WITH BASIN 6-7. |
| North Lahontan | 6-107 | Sweetwater Flat | Mono | | No | No DWR or USGS references found. |
| Colorado Desert | 7-1 | Lanfair Valley | San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-2 | Fenner Valley | San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-3 | Ward Valley | Riverside, San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-4 | Rice Valley | Riverside, San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-5 | Chuckwalla Valley | Imperial, Riverside | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-6 | Pinto Valley | Riverside, San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-7 | Cadiz Valley | Riverside, San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-8 | Bristol Valley | San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |

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|-----------------------|---------------|--------------------------|---------------------------|--|------------------|---|
| Colorado Desert | 7-9 | Dale Valley | Riverside, San Bernardino | DWR Report No. 4, p. 26 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-10 | Twentynine Palms Valley | San Bernardino | DWR Report No. 4, C304, p. 24-26 | Yes | Alluvial deposits, alluvial fans, and Tertiary sands south of the Base Line Fault delineated as potentially rapid infiltration zones based on soil infiltration and fault barrier north of the Little San Bernardino Mountains. |
| Colorado Desert | 7-11 | Copper Mountain Valley | San Bernardino | DWR Report No. 4, p. 26 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-12 | Warren Valley | San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-13 | Deadman Valley | San Bernardino | DWR Report No. 4, p. 26 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-14 | Lavic Valley | San Bernardino | DWR Report No. 4 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-15 | Bessemer Valley | San Bernardino | DWR Report No. 4, p. 26 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-16 | Ames Valley | San Bernardino | DWR Report No. 4, p. 26 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-17 | Means Valley | San Bernardino | DWR Report No. 4, p. 27 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-18 | Johnson Valley | San Bernardino | DWR Report No. 4, p. 28 | No | Low/Limited Use basin. Low population. Poor water quality. |
| Colorado Desert | 7-19 | Lucerne Valley | San Bernardino | DWR Report No. 4, p. 16, 26 | Yes | Alluvial deposits west of Helendale fault were delineated as a potentially rapid infiltration and recharge zone for runoff from the mountains. |
| Colorado Desert | 7-20 | Morongo Valley | San Bernardino | DWR Report No. 4, p. 27 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-21 | Coachella Valley | Imperial, Riverside | DWR Report No. 4, p. 27 ; DWR Bull. 108, Pl. 3A, 3B, 3C | Yes | High permeability river channel deposits and alluvial fans were delineated as a potentially rapid infiltration zones within the Coachella Valley. Areas underlain by bedrock and playa deposits were excluded from these zones. |
| Colorado Desert | 7-22 | West Salton Sea Basin | Imperial | DWR Report No. 4 | Yes | INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-23 | Clark Valley | San Diego | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-24 | Borrego Valley | San Diego | DWR Report No. 4, p. 29-30, Pl. 1 | Yes | Alluvial and alluvial fan deposits west of Borrego Sink were delineated as a potentially rapid infiltration zone |
| Colorado Desert | 7-25 | Ocotillo Valley | Imperial, San Diego | DWR Report No. 4, p. 29, Pl. 1 | Yes | INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-26 | Terwilliger Valley | Riverside | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-27 | San Felipe Valley | San Diego | DWR Report No. 4 | No | Low/Limited Use basin. Low population. |
| Colorado Desert | 7-28 | Vallecito-Carrizo Valley | Imperial, San Diego | | No | Low/Limited Use. |

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|------------------------------|----------------------|---------------------------|---------------------------|--|-------------------------|--|
| Colorado Desert | 7-29 | Coyote Wells Valley | Imperial, San Diego | DWR Report No. 4 | No | PARTLY INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-30 | Imperial Valley | Imperial | DWR Report No. 4, p. 30-31, Pl. 2; USGS Prof. Paper 486-K, p. K13-K24 | Yes | Quaternary alluvial deposits of sand, gravel and silt were delineated as a potentially rapid infiltration zones in the Imperial Valley. |
| Colorado Desert | 7-31 | Orcopia Valley | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-32 | Chocolate Valley | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-33 | East Salton Sea Basin | Imperial, Riverside | | Yes | PARTLY INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-34 | Amos Valley | Imperial | | Yes | PARTLY INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-35 | Ogilby Valley | Imperial | | Yes | PARTLY INCLUDED WITH BASIN 7-30. |
| Colorado Desert | 7-36 | Yuma Valley | Imperial | DWR Report No. 4, p. 31, Pl. 1 | Yes | Younger alluvium along Colorado River was delineated as a potentially rapid infiltration zone. Shallow ground water is used for domestic purpose in this area. |
| Colorado Desert | 7-37 | Arroyo Seco Valley | Imperial, Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-38 | Palo Verde Valley | Imperial, Riverside | DWR Report No. 4, p. 31-32, Pl. 2 | Yes | Colorado River Alluvial deposits were delineated as a potentially rapid infiltration zone within Palo Verde Valley. |
| Colorado Desert | 7-39 | Palo Verde Mesa | Imperial, Riverside | | Yes | PARTLY INCLUDED WITH BASIN 7-38. |
| Colorado Desert | 7-40 | Quien Sabe Point Valley | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-41 | Calzona Valley | Riverside, San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-42 | Vidal Valley | Riverside, San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-43 | Chemehuevi Valley | San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-44 | Needles Basin | San Bernardino | USGS Prof. Paper 486-J, p. J13-J19, Pl. 1 | Yes | Younger alluvium (flood-plain) deposits of the Colorado River were delineated as a potentially rapid infiltration zones in this area. |
| Colorado Desert | 7-45 | Piute Valley | San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-46 | Canebrake Valley | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-47 | Jacumba Valley | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-48 | Helendale Fault Valley | San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-49 | Pipes Canyon Fault Valley | San Bernardino | | No | Low/Limited Use. |

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|------------------------------|----------------------|--|---------------------------|--|-------------------------|---|
| Colorado Desert | 7-50 | Iron Ridge Area | San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-51 | Lost Horse Valley | Riverside, San Bernardino | | No | Low/Limited Use. |
| Colorado Desert | 7-52 | Pleasant Valley | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-53 | Hexie Mountain Area | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-54 | Buck Ridge Fault Valley | Riverside | | No | Low/Limited Use. |
| Colorado Desert | 7-55 | Collins Valley | Riverside, San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-56 | Yaqui Well Area | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-57 | Pinyon Wash Area | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-58 | Whale Peak Area | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-59 | Mason Valley | San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-60 | Jacumba Valley-East | Imperial, San Diego | | No | Low/Limited Use. |
| Colorado Desert | 7-61 | Davies Valley | Imperial | | No | Low/Limited Use. |
| South Coastal | 8-1 | Coastal Plain of Orange County | Orange | DWR Unnumbered Progress Report (Weber, et al, July 1967), PI. 11 and PI. 3, 4, 4A, cross-section A/A'-E/E' | Yes | Rapid infiltration zones where thickness of confining layer is less than 20 feet and where the upper aquifer (Talbot Formation) crops out along the southern slopes of Puente and Chino Hills and northern slopes of Coyote Hills. |
| South Coastal | 8-2 | Upper Santa Ana Valley | Riverside, San Bernardino | DWR Bull. 104-3, App A (Chino-Riverside); DWR Bull. 104-5, p. 10, Fig. 3, 11 (Bunker Hill); DWR Bull. 15, App B, p. 107-126, Fig. B1-B3 (San Jacinto) | Yes | Infiltration >1 in/hr (p. 5-52, PI. 2, 1), unconfined areas (PI. 6-9, cross-section A/A'-I/I'); USGS Water-Supply Paper 1999-C (<i>Chino</i>). Unconfined areas (p.10, Fig. 3), spreading grounds (Fig.11) (<i>Bunker Hill</i>). Specific Yield > 10% (PI. B-1A-1B, B-3A) (<i>San Jacinto</i>). |
| South Coastal | 8-3 | Cajalco Valley (Inundated by Lake Mathews) | Riverside | | No | No DWR or USGS references found. |
| South Coastal | 8-4 | Elsinore Basin | Riverside | DWR Bull. 15 | Yes | Areas of alluvium with specific yield of more than 10%, 50 feet above water table. |
| South Coastal | 8-5 | San Jacinto Basin | Riverside | DWR Bull. 15 | Yes | Areas of alluvium with specific yield of more than 10%, 50 feet above water table. |
| South Coastal | 8-6 | Hemet Lake Valley (Garner Valley) | Riverside | DWR Bull. 118 | No | Low/Limited Use basin. Low population. |
| South Coastal | 8-7 | Big Meadows Valley | San Bernardino | DWR Bull. 118 | No | Low/Limited Use basin. Low population. |

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|------------------------------|----------------------|------------------------|----------------|--|-------------------------|---|
| South Coastal | 8-8 | Seven Oaks Valley | San Bernardino | DWR Bull. 118 | No | Low/Limited Use basin. Low population. |
| South Coastal | 8-9 | Bear Valley | San Bernardino | DWR Bull. 118 | No | Low/Limited Use basin. Low population. |
| South Coastal | 9-1 | San Juan Valley | Orange | DWR Bull. 106-2 | No | Low/Limited Use basin. (San Diego) |
| South Coastal | 9-2 | San Mateo Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. (San Diego) |
| South Coastal | 9-3 | San Onofre Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. (San Diego) |
| South Coastal | 9-4 | Santa Margarita Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. (San Diego) |
| South Coastal | 9-5 | Temecula Valley | Riverside | DWR Bull. 106-2, Pl. 2A, p. 46-47 | Yes | Stream channel deposits and Temecula Arkose formation delineated as potentially rapid infiltration zones. |
| South Coastal | 9-6 | Coahuila Valley | Riverside | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-7 | San Luis Rey Valley | San Diego | DWR Bull. 106-2, Pl. 2A, p. 46-47 | Yes | Stream channel deposits and Pala Fanglomerate formation delineated as potentially rapid infiltration zones. |
| South Coastal | 9-8 | Warner Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-9 | Escondido Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-10 | San Pasqual Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-11 | Santa Maria Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-12 | San Dieguito Creek | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-13 | Poway Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-14 | Mission Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-15 | San Diego River Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-16 | El Cajon Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-17 | Sweetwater Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-18 | Otay Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-19 | Tia Juana Basin | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-20 | Jamul Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-21 | Las Pulgas Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |

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|-----------------------|---------------|--------------------------|-----------|--|------------------|---|
| South Coastal | 9-22 | Batiquitos Lagoon Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-23 | San Elijo Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-24 | Pamo Valley | San Diego | DWR Bull. 106-2 | No | Low/Limited Use basin. |
| South Coastal | 9-25 | Ranchita Town Area | San Diego | | No | Low/Limited Use. |
| South Coastal | 9-26 | Pine Valley | San Diego | | No | Low/Limited Use. |
| South Coastal | 9-27 | Cottonwood Valley | San Diego | | No | Low/Limited Use. |
| South Coastal | 9-28 | Campo Valley | San Diego | | No | Low/Limited Use. |
| South Coastal | 9-29 | Potrero Valley | San Diego | | No | Low/Limited Use. |
| South Coastal | 9-30 | Tecate Valley | San Diego | | No | Low/Limited Use. |