

8-005 SAN JACINTO

Basin Boundaries

Summary

The San Jacinto groundwater basin underlies San Jacinto, Perris, Moreno, and Meniffee Valleys in western Riverside County. This basin is bound by the Box Springs Mountains on the north. The San Jacinto fault and the San Timoteo Badlands bound the northeastern portion of the basin. The basin is bound on the east by impermeable rocks of the San Jacinto Mountains. Various hills and mountains bound the south side of the basin. The basin is bound on the west by unnamed hills composed of metamorphic rocks and granitic rocks that are mapped as part of an erosional surface (CGS, 1965). The valleys are drained by the San Jacinto River and its tributaries. Lake Perris is located in the eastern part of Perris Valley and overlies the northwestern portion of the basin. Average annual precipitation ranges from 10 to 18 inches. The basin boundary is defined 61 segments detailed in the descriptions below.

Segment Descriptions

<u>Segment Label</u>	<u>Segment Type</u>	<u>Description</u>	<u>Ref</u>
1-2	^I Fault	Begins from point (1) and approximately follows the San Jacinto fault, the Claremont fault, and generally follows the contact of Quaternary alluvium with Miocene Mount Eden Formation, Pliocene San Timoteo Formation, and Cretaceous plutonic rocks to point (2).	{a}
2-3	^E Alluvial	Continues from point (2) and approximately follows the contact of Quaternary alluvium with Cretaceous plutonic rocks to point (3).	{a}
3-4	^I Unknown	Continues from point (3) and follows an unknown feature to point (4).	{b}
4-5	^E Alluvial	Continues from point (4) and approximately follows the contact of Quaternary alluvium and Miocene Mount Eden Formation with Paleozoic metasedimentary and metavolcanic rocks to point (5).	{a}
5-6	^I Fault	Continues from point (5) and approximately follows the San Jacinto and Claremont faults and generally follows the contact of Quaternary alluvium with Miocene Mount Eden Formation to point (6).	{a}
6-7	^E Alluvial	Continues from point (6) and generally follows the contact of Quaternary alluvium and Quaternary Bautista Beds with Cretaceous plutonic rocks and Mesozoic or older metamorphic rocks to point (7).	{a}
7-8	^E Alluvial	Continues from point (7) and crosses a thin veneer of alluvium to point (8).	{b}
8-1	^E Alluvial	Continues from point (8) and generally follows the contact of Quaternary alluvium with various Cretaceous plutonic rocks and Mesozoic or older metasedimentary and metavolcanic rocks and ends at point (1).	{a}
9-9	^E Alluvial	Island within the basin boundary: Begins from point (9) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (9).	{c}
10-10	^E Alluvial	Island within the basin boundary: Begins from point (10) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (10).	{d}

11-11	^E Alluvial	Island within the basin boundary: Begins from point (11) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (11).	{a}
12-12	^E Alluvial	Island within the basin boundary: Begins from point (12) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (12).	{a}
13-13	^E Alluvial	Island within the basin boundary: Begins from point (13) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (13).	{a}
14-14	^E Alluvial	Island within the basin boundary: Begins from point (14) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and Paleozoic metamorphic rocks and ends at point (14).	{e}
15-15	^E Alluvial	Island within the basin boundary: Begins from point (15) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and Paleozoic metamorphic rocks and ends at point (15).	{e}
16-16	^E Alluvial	Island within the basin boundary: Begins from point (16) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (16).	{a}
17-17	^E Alluvial	Island within the basin boundary: Begins from point (17) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (17).	{f}
18-18	^E Alluvial	Island within the basin boundary: Begins from point (18) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (18).	{f}
19-19	^E Alluvial	Island within the basin boundary: Begins from point (19) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (19).	{f}
20-20	^E Alluvial	Island within the basin boundary: Begins from point (20) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (20).	{f}
21-21	^E Alluvial	Island within the basin boundary: Begins from point (21) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (21).	{f}
22-22	^E Alluvial	Island within the basin boundary: Begins from point (22) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (22).	{f}
23-23	^E Alluvial	Island within the basin boundary: Begins from point (23) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (23).	{f}
24-24	^E Alluvial	Island within the basin boundary: Begins from point (24) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and pre-Cretaceous metasedimentary rocks and ends at point (24).	{f}
25-25	^E Alluvial	Island within the basin boundary: Begins from point (25) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at	{g}

		point (25).	
26-26	^E Alluvial	Island within the basin boundary: Begins from point (26) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (26).	{g}
27-27	^E Alluvial	Island within the basin boundary: Begins from point (27) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (27).	{g}
28-28	^E Alluvial	Island within the basin boundary: Begins from point (28) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (28).	{g}
29-29	^E Alluvial	Island within the basin boundary: Begins from point (29) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (29).	{g}
30-30	^E Alluvial	Island within the basin boundary: Begins from point (30) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (30).	{g}
31-31	^E Alluvial	Island within the basin boundary: Begins from point (31) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (31).	{g}
32-32	^E Alluvial	Island within the basin boundary: Begins from point (32) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (32).	{g}
33-33	^E Alluvial	Island within the basin boundary: Begins from point (33) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (33).	{g}
34-34	^E Alluvial	Island within the basin boundary: Begins from point (34) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (34).	{g}
35-35	^E Alluvial	Island within the basin boundary: Begins from point (35) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (35).	{g}
36-36	^E Alluvial	Island within the basin boundary: Begins from point (36) and follows the contact of Quaternary alluvium with Mesozoic and older plutonic rocks and ends at point (36).	{a}
37-37	^E Alluvial	Island within the basin boundary: Begins from point (37) and follows the contact of Quaternary alluvium with Mesozoic and older plutonic rocks and ends at point (37).	{b}
38-38	^E Alluvial	Island within the basin boundary: Begins from point (38) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (38).	{h}
39-39	^E Alluvial	Island within the basin boundary: Begins from point (39) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (39).	{h}
40-40	^E	Island within the basin boundary: Begins from point (40) and follows the	{h}

	Alluvial	contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (40).	
41-41	^E Alluvial	Island within the basin boundary: Begins from point (41) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (41).	{g}
42-42	^E Alluvial	Island within the basin boundary: Begins from point (42) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (42).	{h}
43-43	^E Alluvial	Island within the basin boundary: Begins from point (43) and follows the contact of Quaternary alluvium with Mesozoic metasedimentary rocks and ends at point (43).	{i}
44-44	^E Alluvial	Island within the basin boundary: Begins from point (44) and follows the contact of Quaternary alluvium with Mesozoic metasedimentary rocks and ends at point (44).	{i}
45-45	^E Alluvial	Island within the basin boundary: Begins from point (45) and follows the contact of Quaternary alluvium with Mesozoic metasedimentary rocks and ends at point (45).	{i}
46-46	^E Alluvial	Island within the basin boundary: Begins from point (46) and follows the contact of Quaternary alluvium with Mesozoic metasedimentary rocks and Cretaceous plutonic rocks and ends at point (46).	{i}
47-47	^E Alluvial	Island within the basin boundary: Begins from point (47) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and pre-Cretaceous metasedimentary rocks and ends at point (47).	{g}
48-48	^E Alluvial	Island within the basin boundary: Begins from point (48) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (48).	{a}
49-49	^E Alluvial	Island within the basin boundary: Begins from point (49) and follows the contact of Quaternary alluvium with Mesozoic metasedimentary rocks and ends at point (49).	{a}
50-50	^E Alluvial	Island within the basin boundary: Begins from point (50) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (50).	{a}
51-51	^E Alluvial	Island within the basin boundary: Begins from point (51) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (51).	{a}
52-52	^E Alluvial	Island within the basin boundary: Begins from point (52) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (52).	{a}
53-53	^E Alluvial	Island within the basin boundary: Begins from point (53) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (53).	{a}
54-54	^E Alluvial	Island within the basin boundary: Begins from point (54) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (54).	{a}

55-55	^E Alluvial	Island within the basin boundary: Begins from point (55) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (55).	{i}
56-56	^E Alluvial	Island within the basin boundary: Begins from point (56) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (56).	{d}
57-57	^E Alluvial	Island within the basin boundary: Begins from point (57) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (57).	{i}
58-58	^E Alluvial	Island within the basin boundary: Begins from point (58) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (58).	{f}
59-59	^E Alluvial	Island within the basin boundary: Begins from point (59) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (59).	{d}
60-60	^E Alluvial	Island within the basin boundary: Begins from point (60) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (60).	{f}
61-61	^E Alluvial	Island within the basin boundary: Begins from point (61) and follows the contact of Quaternary alluvium with Cretaceous plutonic rocks and ends at point (61).	{c}

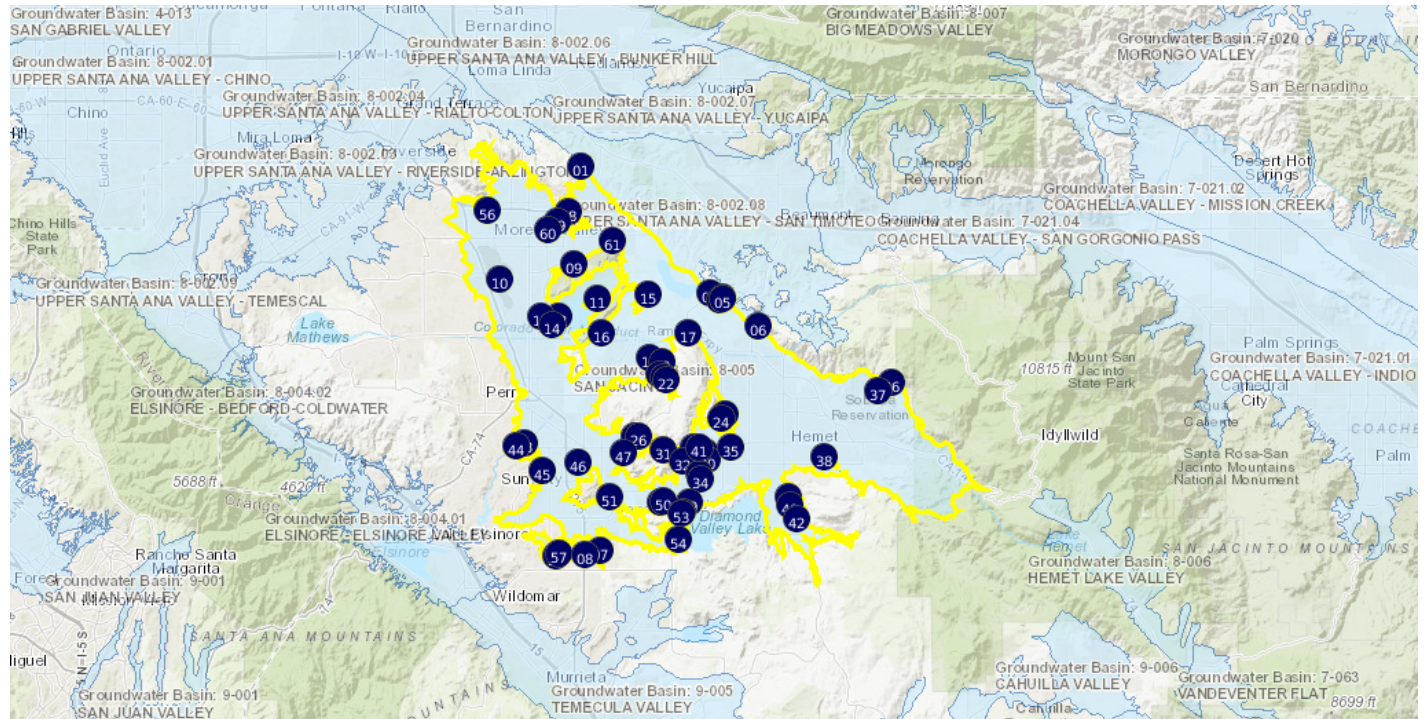
Significant Coordinates

<u>Point</u>	<u>Latitude</u>	<u>Longitude</u>	
1	33.975454298	-117.173987367	
2	33.870002136	-117.044064313	
3	33.864497079	-117.035165736	
4	33.866678705	-117.032755386	
5	33.866375792	-117.032159368	
6	33.843000126	-116.996648436	
7	33.656940465	-117.154579693	
8	33.653029331	-117.169298588	
9	33.894385564	-117.18066615	
10	33.882200922	-117.254872759	
11	33.86621534	-117.156548649	
12	33.851022988	-117.195854037	
13	33.850837295	-117.213717245	
14	33.843737901	-117.201984989	
15	33.869497369	-117.106232775	
16	33.837894986	-117.152910182	
17	33.837754488	-117.066927903	
18	33.816930265	-117.10448577	
19	33.813043232	-117.09274545	
20	33.803717369	-117.095624454	
21	33.80046705	-117.090783628	
22	33.798362916	-117.088498992	
23	33.770554953	-117.029107209	
24	33.766752901	-117.033093021	
25	33.751600525	-117.119945057	
26	33.751841121	-117.115984309	
27	33.742696647	-117.06038604	
28	33.73924064	-117.054101375	
29	33.739145272	-117.050314608	
30	33.732084164	-117.047838148	

31	33.739850538	-117.090956687
32	33.731693785	-117.072549992
33	33.721165338	-117.055702909
34	33.716457836	-117.054418239
35	33.742187946	-117.024399881
36	33.79675656	-116.86284249
37	33.789051667	-116.876431629
38	33.734755294	-116.930326284
39	33.701929425	-116.965898591
40	33.695187352	-116.964956637
41	33.742502864	-117.055222508
42	33.683400275	-116.958545868
43	33.745654264	-117.230316887
44	33.743719736	-117.238592355
45	33.723236187	-117.211796539
46	33.729841784	-117.176387851
47	33.7383292	-117.130648682
48	33.697344194	-117.093560744
49	33.696619466	-117.064738391
50	33.697922029	-117.091063974
51	33.701160621	-117.144883688
52	33.688741783	-117.071690579
53	33.687676505	-117.073395812
54	33.66625576	-117.076782803
55	33.652938253	-117.198704581
56	33.938635662	-117.266711399
57	33.654109263	-117.19540594
58	33.937818097	-117.186166141
59	33.92927144	-117.197058766
60	33.922346864	-117.20708543
61	33.914142139	-117.142468452

Map

8-005 SAN JACINTO



<https://sgma.water.ca.gov/webgis/?appid=160718113212&subbasinid=8-005>

References

Ref	Citation	Pub Date	Global ID
{a}	California Geological Survey (CGS), Geologic Compilation of Quaternary Surficial Deposits in Southern California, T.L. Bedrossian, P. Roffers, C.A. Hayhurst, J.T. Lancaster, and W.R. Short.URL: http://www.conservation.ca.gov/cgs/fwgp/Pages/sr217.aspx	2012	50
{b}	Unknown/other/new	varies	46
{c}	Diblee Geological Foundation, Geologic Map of the Sunnymead / South 1/2 of Redlands Quadrangles, 1:24,000, T.W Dibblee and J.A. Minch.	2003	54
{d}	Diblee Geological Foundation, Geologic map of the Riverside East / South 1/2 of San Bernardino South quadrangles, 1:24,000, T.W Dibblee and J.A. Minch.	2003	53
{e}	California Geological Survey (CGS), Geologic Atlas of California Map No. 019, Santa Ana Sheet, 1:250,000, Thomas H. Rogers.URL: http://www.quake.ca.gov/gmaps/GAM/santaana/santaana.html	1965	25
{f}	Diblee Geological Foundation, Geologic Map of the Perris Quadrangle, 1:24,000, T.W Dibblee and J.A. Minch.	2003	55
{g}	Diblee Geological Foundation, Geologic Map of the Winchester Quadrangle, 1:24,000, T.W Dibblee and J.A. Minch.	2003	56
{h}	United States Geological Survey (USGS), Preliminary Geologic Map of the Hemet 7.5' Quadrangle, Riverside County, California, 1:24,000, D.M. Morton and J.C. Matti.URL: https://pubs.usgs.gov/of/2004/1455/hmt1.1_map.pdf	2005	68

{i}	United States Geological Survey (USGS), Geologic map and digital database of the Romoland 7.5' quadrangle, Riverside County, California, 1:24,000, D.M. Morton, K.R. Bovard, and G. Morton.URL: http://ngmdb.usgs.gov/Prodesc/proddesc_54569.htm	2003	66
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Footnotes

- I: Internal
- E: External