



Public
Utilities



Groundwater
Sustainability Plan:
Advisory Committee
Groundwater Model Update-
Land Use
and
Well to Parcel Assignments

Draft

Subject Update on SPV GSP Well-to-parcel, Land Use, and Pumping Well Status Modeling Assumptions

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The purpose of this handout is to provide in advance of the October 8th Technical Peer Review (TPR) meeting an update on the well-to-parcel map, 2005 and 2018 land use maps, and a table summarizing the assumed status (i.e., active versus inactive) of groundwater pumping wells during the historical simulation period and at present. The information provided herein has been prepared by Jacobs Engineering Group, Inc. (Jacobs) on behalf of the San Pasqual Valley (SPV) Groundwater Sustainability Agency (GSA). Jacobs is using this information to help develop a numerical integrated flow model that will support development of the SPV Groundwater Sustainability Plan (GSP).

Well-to-parcel Map

Well-to-parcel associations are needed to develop the numerical integrated flow model (GSP Model). This model will be used to compute historical, current, and future water budgets per GSP Regulations. The attached well-to-parcel map was developed based on the following data sources:

- Feedback from SPV GSA representatives, TPR members, and selected stakeholders
- *San Pasqual Valley Groundwater Basin Salt and Nutrient Management Plan* (SNMP) (CH2M HILL 2014) mapping effort completed in conjunction with City of San Diego staff
- 2018 City of San Diego Wells & City Leases Map and Domestic 2016 Water Supply Schematic
- City of San Diego master well database and Rancho Guejito wells GIS layer
- San Diego County well completion reports

Of the information sources listed above, Jacobs mostly relied upon information provided by SPV GSA representatives and information acquired and used during the development of the SNMP. The accuracy of the map has been improved upon by incorporating thoughtful review comments received from the entities listed above.

Land Use Maps

Land use mapping is also needed as part of GSP Model and GSP development. Jacobs has developed 2005 and 2018 land use maps with the aid of the following data sources:

- Feedback from SPV GSA representatives, TPR members, and selected stakeholders
- SanDAG/SanGIS land use data

- Comments received from Rancho Guejito on the SanDAG land use data
- 1998 San Diego County land use survey performed by CA DWR
- 2014 and 2016 Land IQ land use classifications provided by CA DWR
- SNMP (CH2M HILL 2014) land use classifications and Google Earth™ historical aerial imagery

Of the information sources listed above, Jacobs mostly relied upon 2018 aerial imagery, land use mapping developed for the City of San Diego during preparation of the SNMP, and recent information provided by SPV GSA representatives. The accuracy of the map has been improved upon by incorporating thoughtful review comments received from the entities listed above.

Pumping Well Status through Time

The well-to-parcel and land use maps help establish important associations among parcels, irrigated lands, and pumping wells represented in the GSP Model. However, just as important as the spatial distribution of this information is the temporal distribution of groundwater pumping during the 15-year historical simulation period, including water year (WY) 2005 through WY 2019. The status of each modeled pumping well through time was developed based on information gained from the well-to-parcel map development and from City of San Diego staff input. A summary table of the modeled pumping well status through time is provided below. The accuracy of this information has been improved by incorporating thoughtful review comments received from SPV GSA representatives.

Status of Pumping Well by Water Year - Blue = Active; Gray = Inactive

Well ID	Entity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Current (2020) and Future Conditions
SP001	Konyn																
SP002	Konyn																
SP003	Konyn/Suncoast																
SP004	Konyn/Suncoast																
SP005	Konyn/Suncoast																
SP006	Wilkins Nursery																
SP007	Konyn/Suncoast																
SP008	City/Orfila																
SP009	Brammer																
SP010	Jancic																
SP011	Konyn																
SP012	Konyn/Suncoast																
SP013	Konyn/Suncoast																
SP014	Pinery																
SP015	Pinery																
SP016	Pinery																
SP017	Pinery																
SP018	Pinery																
SP019	AmSod																
SP020	City																
SP021	AmSod																
SP022	AmSod																
SP023	AmSod																
SP024	Evergreen Nursery																
SP025	Three C																
SP026	Three C																
SP027	Three C																
SP028	Three C																
SP029	State of CA																
SP031	Brammer																
SP032	Brammer																
SP033	Brammer																
SP034	Brammer																
SP035	Lindshield																
SP036	Lindshield																
SP037	Lindshield																
SP039	Lindshield																
SP040	Lindshield																
SP041	Lindshield																
SP042	Lindshield																
SP043	Various																
SP044	Safari Park																
SP046	Safari Park																

San Pasqual Valley Groundwater Sustainability Plan

Status of Pumping Well by Water Year - Blue = Active; Gray = Inactive

Well ID	Entity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Current (2020) and Future Conditions
SP048	West Coast																
SP049	West Coast																
SP050	West Coast																
SP051	West Coast																
SP052	Witman																
SP053	Witman																
SP054	Brammer																
SP055	West Coast																
SP056	West Coast																
SP057	West Coast/Witman																
SP058	City																
SP059	Witman																
SP060	Witman																
SP061	Henry Avocado																
SP062	Henry Avocado																
SP063	Henry Avocado																
SP065	Konyn																
SP066	City																
SP067	Songer																
SP068	Songer																
SP069	Songer																
SP071	Songer																
SP072	City																
SP074	City																
SP076	Konyn																
SP077	West Coast																
SP079	Konyn																
SP083	Witman																
SP084	Konyn																
SP086	City																
SP087	City																
SP088	Witman																
SP089	Witman																
SP090	Witman																
SP091	City																
SP092	Witman																
SP093	City																
SP094	Witman																
SP095	Witman																
SP096	Witman																
SP097	City																
SP098	Witman																
SP099	City																
SP103	Evergreen Nursery																
SP121	Witman																
SP125	Witman																
SP126	Witman																
SP127	City																
SPA002	County																
SPA005	County																
SPA006	County																
SPA010	County																
RK-8	Rancho Guejito																
RK-9	Rancho Guejito																
RK-10	Rancho Guejito																
RK-11	Rancho Guejito																
RK-12	Rancho Guejito																
RK-13	Rancho Guejito																
RK-Dom	Rancho Guejito																
RK Dom-2	Rancho Guejito																
Well 3	Rancho Guejito																
Well 4	Rancho Guejito																
Well 5	Rancho Guejito																
Well 6	Rancho Guejito																
CONS1	Other																
SPA108	Other																
SPA130	Other																
New Well #5	Witman																

References

CH2M HILL, 2014. *San Pasqual Valley Groundwater Basin Salt and Nutrient Management Plan*. Prepared for City of San Diego. May.

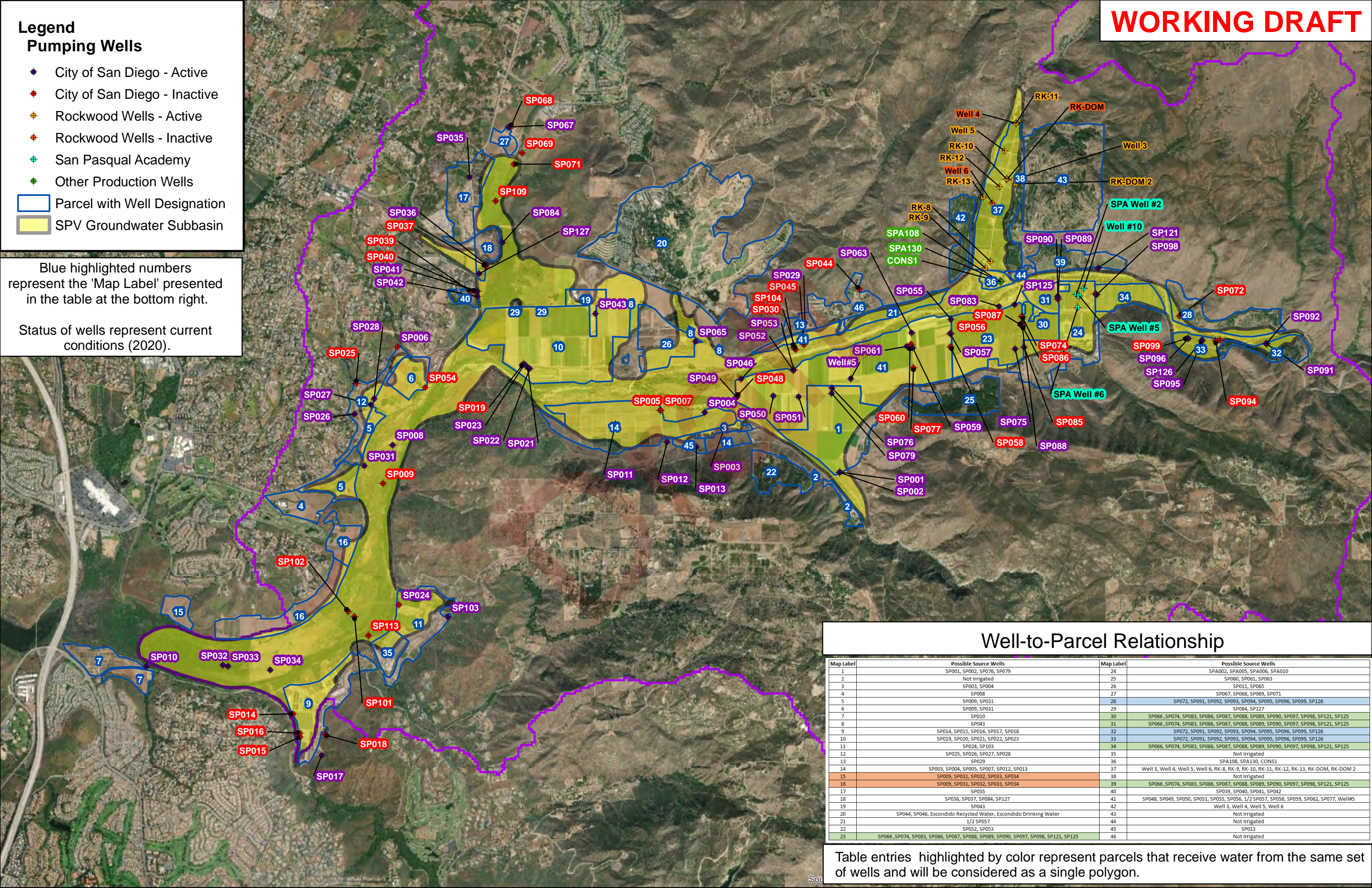
Legend
Pumping Wells

- City of San Diego - Active
- City of San Diego - Inactive
- Rockwood Wells - Active
- Rockwood Wells - Inactive
- San Pasqual Academy
- Other Production Wells
- Parcel with Well Designation
- SPV Groundwater Subbasin

Blue highlighted numbers represent the 'Map Label' presented in the table at the bottom right.

Status of wells represent current conditions (2020).

WORKING DRAFT




Well-to-Parcel Relationship

Map Label	Possible Source Wells	Map Label	Possible Source Wells
1	SP001, SP002, SP076, SP079	24	SPA002, SPA005, SPA006, SPA010
2	Not Irrigated	25	SP060, SP061, SP063
3	SP003, SP004	26	SP011, SP065
4	SP008	27	SP067, SP068, SP069, SP071
5	SP009, SP031	28	SP072, SP091, SP092, SP093, SP094, SP095, SP096, SP099, SP126
6	SP009, SP031	29	SP084, SP127
7	SP010	30	SP066, SP074, SP083, SP086, SP087, SP088, SP089, SP090, SP097, SP098, SP121, SP125
8	SP043	31	SP066, SP074, SP083, SP086, SP087, SP088, SP089, SP090, SP097, SP098, SP121, SP125
9	SP014, SP015, SP016, SP017, SP018	32	SP072, SP091, SP092, SP093, SP094, SP095, SP096, SP099, SP126
10	SP019, SP020, SP021, SP022, SP023	33	SP072, SP091, SP092, SP093, SP094, SP095, SP096, SP099, SP126
11	SP024, SP103	34	SP066, SP074, SP083, SP086, SP087, SP088, SP089, SP090, SP097, SP098, SP121, SP125
12	SP025, SP026, SP027, SP028	35	Not Irrigated
13	SP029	36	SPA108, SPA130, CONS1
14	SP003, SP004, SP005, SP007, SP012, SP013	37	Well 3, Well 4, Well 5, Well 6, RK-8, RK-9, RK-10, RK-11, RK-12, RK-13, RK-DOM, RK-DOM 2
15	SP009, SP031, SP032, SP033, SP034	38	Not Irrigated
16	SP009, SP031, SP032, SP033, SP034	39	SP066, SP074, SP083, SP086, SP087, SP088, SP089, SP090, SP097, SP098, SP121, SP125
17	SP035	40	SP039, SP040, SP041, SP042
18	SP036, SP037, SP084, SP127	41	SP048, SP049, SP050, SP051, SP055, SP056, 1/2 SP057, SP058, SP059, SP062, SP077, Well#5
19	SP043	42	Well 3, Well 4, Well 5, Well 6
20	SP044, SP046, Escondido Recycled Water, Escondido Drinking Water	43	Not Irrigated
21	1/2 SP057	44	Not Irrigated
22	SP052, SP053	45	SP013
23	SP066, SP074, SP083, SP086, SP087, SP088, SP089, SP090, SP097, SP098, SP121, SP125	46	Not Irrigated

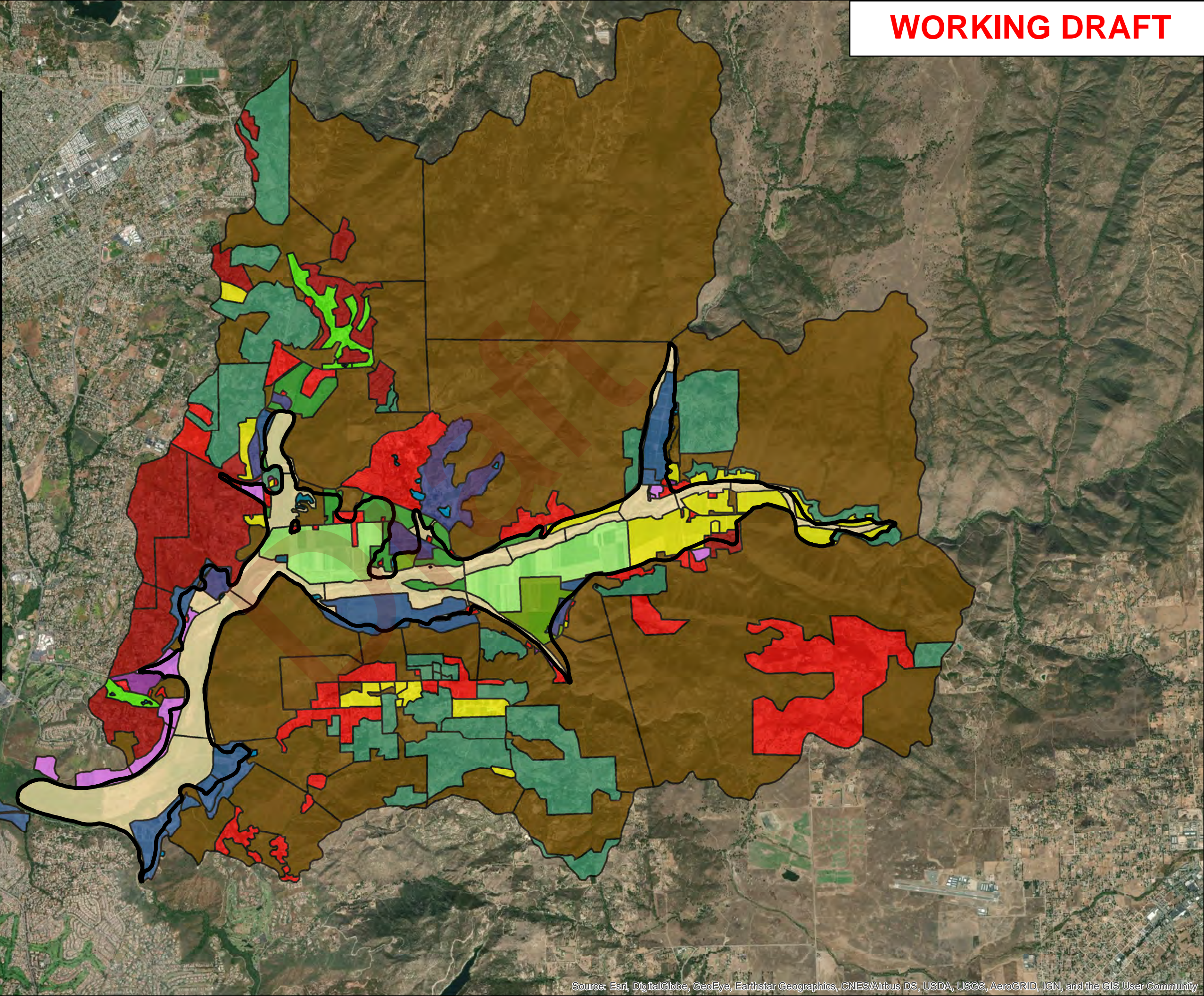
Table entries highlighted by color represent parcels that receive water from the same set of wells and will be considered as a single polygon.

Legend


 SPV Groundwater Subbasin

2005 Land Use Classification

-  Avocado
-  Citrus
-  Grapevines
-  Truck Crops
-  Nursery
-  Greenhouse
-  Feedlot
-  Idle
-  Golf Course
-  Winter Forage
-  Summer Forage
-  Native Shrub
-  Riparian
-  Turfgrass
-  Urban Landscape
-  Rural Landscape
-  Open Water - Groundwater
-  Open Water - Irrigation



Legend

 SPV Groundwater Subbasin

2018 Land Use Classification

-  Avocado
-  Citrus
-  Grapevines
-  Truck Crops
-  Nursery
-  Greenhouse
-  Feedlot
-  Idle
-  Golf Course
-  Winter Forage
-  Summer Forage
-  Native Shrub
-  Riparian
-  Turfgrass
-  Urban Landscape
-  Rural Landscape
-  Open Water - Groundwater
-  Open Water - Irrigation

