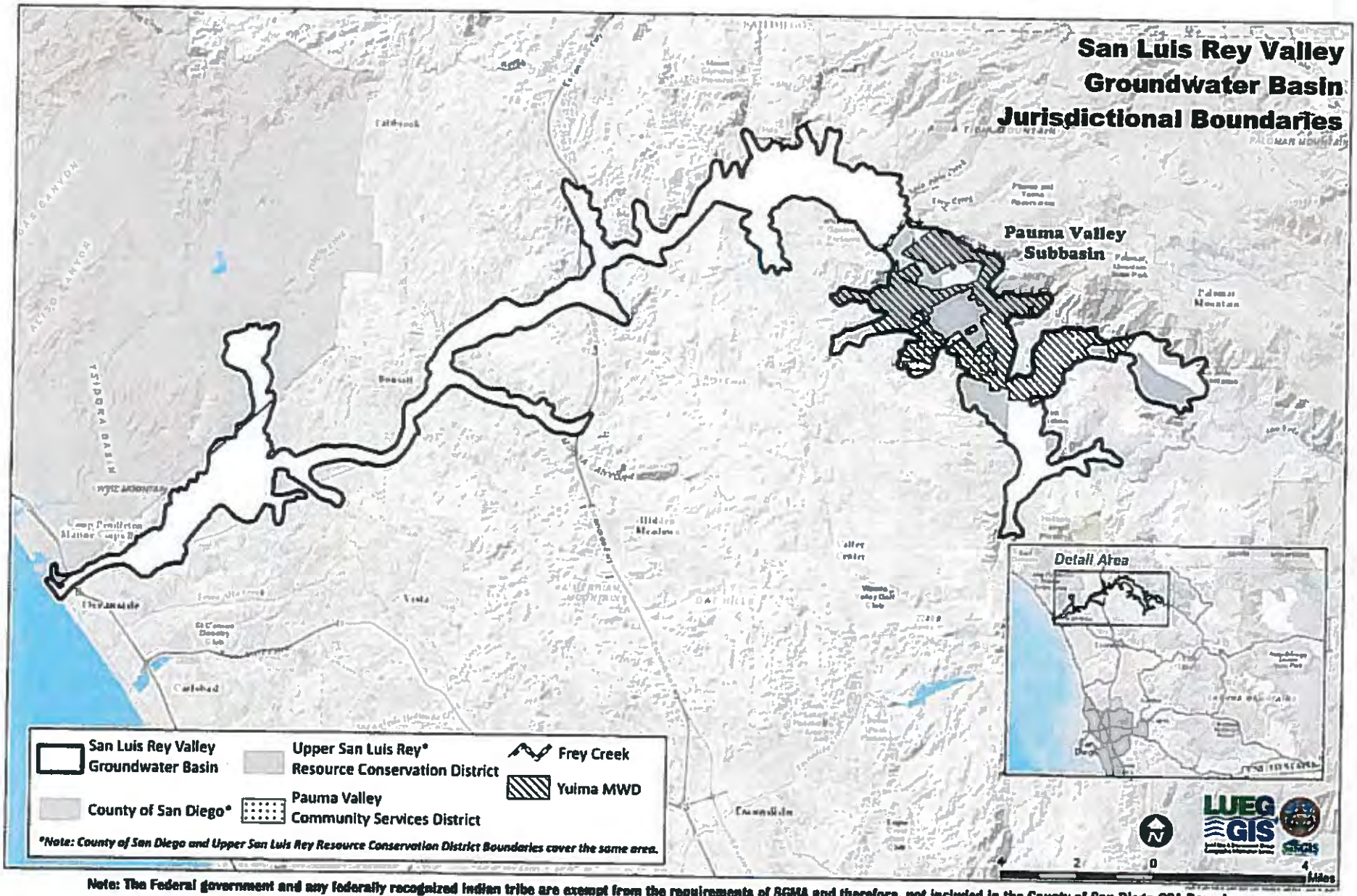

Note: The Federal government and any federally recognized Indian tribe are exempt from the requirements of SGMA and therefore, not included in the County of San Diego GSA Boundary.

APPENDIX 2B

Sustainable Groundwater Management Act

1 message

Carmen Rodriguez <carmen@yuimamwd.com> Fri, Dec 4, 2020 at 4:02 PM
To: Carmen Rodriguez <carmen@yuimamwd.com>
Bcc: charm@charmlogandesigns.com, ERIC.JILES@yahoo.com, gregpalms@aol.com, Michael Perricone <michaelperricone31@gmail.com>, orosart5@gmail.com, paumamama10@gmail.com, pvwaterco1914@gmail.com, ROBERTHUMASON@yahoo.com, USLRWA@gmail.com, W.CLYALL@gmail.com, "A Tamarkin Trust, Paul" <melissamother1@aol.com>, "Abeyta, Nicholas" <nicholas.abeyta@yahoo.com>, Al Stehly <al@stehlygrove.com>, Alayna Dean <acctg.mfm@hotmail.com>, Albert & Pamela Degen <CORSAIR023@msn.com>, Alberto Cueva <acuevapv@gmail.com>, Alexander and Thomas Orchards LLC <jthomasm@hotmail.com>, "Alvarez, Oscar & Ramona" <ramona2753@gmail.com>, AMANDA AGCAOILI <amandalsaac3@gmail.com>, Andy Lyall <LYALLRANCH@gmail.com>, Anna Cabo <annacabo@aol.com>, Anthony Cinquini <anthony@anthonycinquini.com>, Antonio & Charlene Bolado <abolado@ft.newyorklife.com>, Art Haber <arthurhaber9@outlook.com>, "Ash, Gary W" <gary@fences4less.com>, Aurie <aurie@burgepacific.com>, "Bailey, Kenneth A@DOT" <kenneth.bailey@dot.ca.gov>, BARCLAY LEWISON <barclay.lewison@gmail.com>, "Barile, Marian" <mairan.barile@zestdent.com>, "Beazley, Adrianne" <bluekitty76@gmail.com>, Bill Bauer <bill4hisglory@gmail.com>, Bill Knutson <wdknute@yahoo.com>, "Blakey, Patti" <blakeyranch@aol.com>, Bo Mazzetti <bomazzetti@aol.com>, Borden Ranches LLC <bordenranches@yahoo.com>, "Bosworth, Timothy L" <tlbosworth69@gmail.com>, Brian Hitchcock <coty.hitchcock@icloud.com>, Bruce Donnelly <leo360mix@hotmail.com>, Bruce Knox <Bknox@diginsurance.net>, "Bullock, Julia A" <wtjabullock@gmail.com>, Burnet Wohlford <HRMBURNET@sbcglobal.net>, CA Division of Forestry <ileen.rodriguez@fire.ca.gov>, "Campbell, Christopher" <mur88phy@gmail.com>, "Carreon, Guadelupe" <carreonnursery@gmail.com>, "Castillo, Julio & Nancy" <jccastillo@peoplepc.com>, Cavaletto/McMillan Trust <mcmillanfarmmgmt@msn.com>, "Cederblom, Leif" <leifcederblom@gmail.com>, Cemansky Family Trust <SANDYCERN@att.net>, "Cesmat, Keaton" <keaton_cesmat@yahoo.com>, "Cherry, Albert" <albert@cherryeng.com>, Chris Ambuul <chris@ssgms.net>, Christina Cuevas <christinacuevas@live.com>, Christine Whalley <c_whalley@yahoo.com>, Chuck Bandy <MCMILLANFARMMGMT@msn.com>, Clemente Ramirez <teresaramirez255@gmail.com>, Colleen Heublein <heublein.co@vcpusd.org>, "Collins, Casey & Carol" <carccollins@aol.com>, "Collins, James" <predatorjockey@gmail.com>, "Condie, Jamie" <mrsjcondie@gmail.com>, "Coshow, Paul" <pcoshow189@gmail.com>, Craig Childs <palomesa3@hughes.net>, Craig Maloff <CRAIGAMALOFF@gmail.com>, "Crispi, Nick" <tlcbarberservices@gmail.com>, "Currier, Ronald F" <randic2buddy@gmail.com>, Damarus-Moore Lmd Prtn <tom.moore@att.net>, Daniel Ingalls <dannying89@gmail.com>, Daren House <simpson@mcn.org>, David <david@lsacpa.com>, Dennis Judkins <drill4you@aol.com>, Desheng Luo <1314ilike@gmail.com>, "Di Nardo, Domenic" <carmellem@vanderspekcpas.com>, Donald Armstrong <PAUMADON@gmail.com>, "Donnelly, Bruce" <brucedonnelly@hotmail.com>, Doug Anderson <MRORANGE1939@gmail.com>, DWIGHT & FRANCES 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<POLITOFARMS@gmail.com>, Roberta Counts <rcounts@surterreproperties.com>, "Rodriguez, Gerad and Marquita" <marquitar@aol.com>, Roland Simpson <SIMPSON@mcn.org>, "Rollins, Howard" <ROLLINSHANDJ@att.net>, Ron Johnson <14tchance18@gmail.com>, Ronald Williams <PAUMARON@gmail.com>, "Rutherford, Mateo" <mateo_rutherford@yahoo.com>, Ryan Condie <rcondie@gmail.com>, "Salinas, Gloria" <gsvalley@earthlink.net>, "Samuelson, James B" <kpapaj@gmail.com>, "Sanchez Tte, Jose J" <jrtthurh25@icloud.com>, "Serrato, Adalberto" <serrato@citrusproinc.com>, Seth Jiles <JILESRANCH@yahoo.com>, Shaun Summers <rebel91656@yahoo.com>, Shrelar Family Trust <BARRYSHREIAR@cox.net>, "Simmons, Sarah" <sarahesimmons@gmail.com>, "Skovgard, Mary T" <maryskovgard2@aol.com>, "Slack, Brian & Janie" <slack_bl@yahoo.com>, "Slocum, Herb" <herbnangie@yahoo.com>, "Snyder, Cherie" <ankh677@yahoo.com>, "Stead, Barbara" <shanthi723@yahoo.com>, "Stehly, Frank & Erica" <ESTEHLY@msn.com>, "Strack Van Schijndel, Jeroen" <jeromestrack@aol.com>, Sun Pacific Farming <LINDAS@sunpacific.com>, Susan Carpenter <CARPENTERIMSUE@gmail.com>, Sylvia Corona <scorona@gmail.com>, Tatiana Moore <tatianamarie13@yahoo.com>, Terry Yasutake <terry@tynursery.com>, "Thalmayer, Tim" <pvbrat@live.com>, "Thornton, William" <billthornton724@yahoo.com>, Todd and Cathy Lower <tclower1@gmail.com>, Tom Huggins <tehugg@gmail.com>, Tom Kennedy <TKENNEDY@rainbowmwd.com>, Trevor Smith <smithracing747@yahoo.com>, "Valdivia, Jose" <jose.valdivia@cox.net>, Vanessa Velasquez <vaness.velasquez@yahoo.com>, "Velez, Jose & Sonia" <velezfam1234@sbcglobal.net>, Veronica Cesmat <vgcesmat89@gmail.com>, Village Nurseries <cstubbs@villagenurseries.com>, "Villalobos, Francisco" <frankvilla24@gmail.com>, Vincent Bernard <AJBERNARD@gmail.com>, "Weiss, Erich" <terce333@gmail.com>, William Berglun <w.c.berglund@gmail.com>, William Collier <COLLIERW@yahoo.com>, William Hahlbohm <JEANETTE@sundanceorganics.com>, William Steed <COMPLIANCE@fairfieldllc.com>, "wpvr101@yahoo.com" <wpvr101@yahoo.com>, "Yuok, Samuel" <SY44@yahoo.com>

Good Afternoon,

Please see the attached correspondence regarding the Sustainable Groundwater Management Act from Yuima Municipal Water District.

Sincerely,

Carmen Rodriguez | Administrative Assistant |Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 |

Office: (760) 742-3704|carmen@yuimamwd.com

Stakeholders Engament Letter.pdf
38K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Invitation to Participate

1 message

Amy Reeh <amy@yuimamwd.com> Mon, Dec 7, 2020 at 7:11 PM
To: Chairman Bo Mazzetti <bomazzetti@aol.com>
Bcc: "Jungreis, Jeremy" <JJungreis@rutan.com>

Good evening Chairman Mazzetti,

The monthly meeting of the Groundwater Sustainability Agency is being held on December 7, 2020. The GSA would like to again invite you or another representative from the IWA to participate in the meeting.

Below is the link to participate via Zoom and attached to this email is the meeting packet.

The GSA Team looks forward to the IWA's participation in this important process.

Take care!

Join Zoom Meeting
https://us02web.zoom.us/j/7607423704?pwd=MlBQU3hYYW9FVFRGcE1JWU9jVTErdz09

Meeting ID: 760 742 3704
Passcode: 200712
One tap mobile
+14086380968,,7607423704#,,,,,,0#,,200712# US (San Jose)
+16699006833,,7607423704#,,,,,,0#,,200712# US (San Jose)

Dial by your location
+1 408 638 0968 US (San Jose)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 646 876 9923 US (New York)
+1 301 715 8592 US (Germantown)
+1 312 626 6799 US (Chicago)
Meeting ID: 760 742 3704
Passcode: 200712
Find your local number: https://us02web.zoom.us/u/kdfNuDmCGo

Kindest Regards,

Amy Reeh | Interim General Manager / Finance & Administrative Services Manager | Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLR GSA 2020-12-09.pdf
841K

APPENDIX 2B

Gmail

GSA Group <gsa@yulmamwd.com>

APPENDIX 2B

Sustainable Groundwater Management Act- Kickoff Meeting

1 message

GSA Group <gsa@yulmamwd.com>
To: Carmen Rodriguez <carmen@yulmamwd.com>
Tue, Jan 5, 2021 at 2:18 PM

Bcc: charm@charmlogandesigns.com, ERIC.JILES@yahoo.com, gregpalms@aol.com, Michael Perricone <michaelperricone31@gmail.com>, orosart5@gmail.com, paumamama10@gmail.com, pvwaterco1914@gmail.com, ROBERTHUMASON@yahoo.com, USLRWA@gmail.com, W.CLYALL@gmail.com, "A Tamarkin Trust, Paul" <melissamother1@aol.com>, "Abeyta, Nicholas" <nicholas.abeyta@yahoo.com>, Al Stehly <al@stehlygrove.com>, Alayna Dean <acctg.mtm@hotmail.com>, Albert & Pamela Degen <CORSAIR023@msn.com>, Alberto Cueva <acuevapv@gmail.com>, Alexander and Thomas Orchards LLC <jthomasm@hotmail.com>, "Alvarez, Oscar & Ramona" <ramona2753@gmail.com>, AMANDA AGCAOILI <amandaisaac3@gmail.com>, Andy Lyall <LYALLRANCH@gmail.com>, Anna Cabo <annacabo@aol.com>, Anthony Cinquini <anthony@anthonycinquini.com>, Antonio & Charlene Bolado <abolado@ft.newyorklife.com>, Art Haber <arthurhaber9@outlook.com>, "Ash, Gary W" <gary@fences4less.com>, Aurie <aurie@burgepacific.com>, "Bailey, Kenneth A@DOT" <kenneth.bailey@dot.ca.gov>, BARCLAY LEWISON <barclay.lewison@gmail.com>, "Barile, Marian" <marian.barile@zestdent.com>, "Beazley, Adrianne" <bluekitty76@gmail.com>, Bill Bauer <bill4hisglory@gmail.com>, Bill Knutson <wdknut@yahoo.com>, "Blakey, Patti" <blakeyranch@aol.com>, Bo Mazzetti <bomazzetti@aol.com>, Borden Ranches LLC <bordenranches@yahoo.com>, "Bosworth, Timothy L" <tlbosworth69@gmail.com>, Brian Hitchcock <coty.hitchcock@icloud.com>, Bruce Donnelly <lec380mtx@hotmail.com>, Bruce Knox <Bknox@diginsurance.net>, "Bullock, Julia A" <wtjabullock@gmail.com>, Burnet Wohlford <HRMBURNET@sbcglobal.net>, CA Division of Forestry <fleen.rodriguez@fire.ca.gov>, "Campbell, Christopher" <mur88phy@gmail.com>, "Carreon, Guadelupe" <carreonnursery@gmail.com>, "Castillo, Julio & Nancy" <jccastillo@peoplepc.com>, Cavaletto/McMillan Trust <mcmillanfarmmgmt@msn.com>, "Cederblom, Leif" <leifcederblom@gmail.com>, Cernansky Family Trust <SANDYCERN@att.net>, "Cesmat, Keaton" <keaton_cesmat@yahoo.com>, "Cherry, Albert" <albert@cherryeng.com>, Chris Ambuul <chris@ssgms.net>, Christina Cuevas <christinacuevas@live.com>, Christine Whalley <c_whalley@yahoo.com>, Chuck Bandy <MCMILLANFARMMGMT@msn.com>, Clemente Ramirez <teresaramirez255@gmail.com>, Colleen Heublein <heublein.co@vcpusd.org>, "Collins, Casey & Carol" <carccollins@aol.com>, "Collins, James" <predatorjockey@gmail.com>, "Condie, Jamie" <mrsjcondie@gmail.com>, "Coshow, Paul" <pcoshow189@gmail.com>, Craig Childs <palomesa3@hughes.net>, Craig Maloff <CRAIGAMALOFF@gmail.com>, "Crispi, Nick" <tjcberberservices@gmail.com>, "Currier, Ronald F" <randlc2buddy@gmail.com>, Damarus-Moore Lmd Prtn <tom_moore@att.net>, Daniel Ingalls <dannying89@gmail.com>, Daren House <simpson@mcn.org>, David <david@isacpe.com>, Dennis Judkins <drll4you@aol.com>, Desheng Luo <1314lilke@gmail.com>, "Di Nardo, Domenic" <carmellem@vanderspekcpas.com>, Donald Armstrong <PAUMADON@gmail.com>, "Donnally, Bruce" <brucedonnally@hotmail.com>, Doug Anderson <MRORANGE1939@gmail.com>, DWIGHT & FRANCES Everett <FDEVERETT@earthlink.net>, Earl Rutz <EARLRUTZ1@me.com>, Enola Price <ENOLA@ecofarmsusa.com>, EVAN FORAYTER <eforayter@gmail.com>, "FitzSimmons, FD" <fitzsimmons45@aol.com>, "For His Glory Farms, Inc." <BILL4HISGLORY@gmail.com>, Freaberg Survivors Trust <sierradel_cro@msn.com>, "Fritz, Patricia" <patsyfritz@aol.com>, "Gaboury, Dixie" <gabouryd2@yahoo.com>, "Garcia, Rosanna" <sukmat22@gmail.com>, Gary Arant <garant@vcmwd.org>, Gerry Luna <FLUORRANCH1953@gmail.com>, Gilbert Caballero <adjustgo@gmail.com>, "Golding, Charles G" <chuck@goldingpublications.com>, Grace Cardone <cdd@internet.com>, Greg Kamin <atranchllc@gmail.com>, "Gregory Palm Farms, LLC" <gregpalms1@gmail.com>, "Haber, Art J" <hooknsew@hotmail.com>, "Hall, Jesse & Rhonda" <jes2ron@yahoo.com>, Harlan Beck <JBECK2@me.com>, "Hemminger, Janet" <janhemminger@gmail.com>, "Henderson, Susan" <vchendersonmom@aol.com>, Herb Slocum <jennifermhansen1@gmail.com>, "Hernandez, David" <davidhernandezgmc@yahoo.com>, "Hopkins, Robert & 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"Kells, Bruce & Charleen" <char@aprobilling.com>, Kenneth Shull <KEN@sunrisefarmscitrus.com>, Kimberly Cucinella <kimcucinella@gmail.com>, Luciano and Rufina Hernandez <lizruiz1120@yahoo.com>, "Levine, Tom Jr." <TOMLAVINE20@gmail.com>, "Lee, Jenelle M" <jenellemlee@gmail.com>, Linda Vogt <lvogt6900@gmail.com>, Lori Johnson <lajsn1234@gmail.com>, "Luna, Jackie" <jlr8984@yahoo.com>, Lynne Villalobos <LANEY3727@gmail.com>, Marie Price <mtpcsproperties@gmail.com>, MARIANN VARIN <marpmvlly@gmail.com>, Mary Peterman <RNPETERMAN@hotmail.com>, Matthew Mellor <ASHLYMELLOR@gmail.com>, "McCafferty, Kenny & Robyn" <kezsez@gmail.com>, "Mendoza, Macaria De" <mendoza.laura@live.com>, Metta Forest Monastery <METTAMONASTERY@protonmail.com>, Michael Jeron <m_jeron@hotmail.com>, Montel Jones <montel.l.jones@hotmail.com>, Nell & Sandra Carey <nbconsulting@cox.net>, "Nguyen, Hong Le" <dnewin2000@yahoo.com>, "Northrop, John H" <john.northrop1026@att.net>, Oggie Watson <oggie@tynursery.com>, Orest Baransky 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<POLITOFARMS@gmail.com>, Roberta Counts <rcounts@surterreproperties.com>, "Rodriguez, Gerad and Marquita" <marquitar@aol.com>, Roland Simpson <SIMPSON@mcn.org>, "Rollins, Howard" <ROLLINSHANDJ@att.net>, Ron Johnson <141chance18@gmail.com>, Ronald Williams <PAUMARON@gmail.com>, "Rutherford, Mateo" <mateo_rutherford@yahoo.com>, Ryan Condie <rcondie@gmail.com>, "Salinas, Gloria" <gsvalley@earthlink.net>, "Samuelson, James B" <kpapaj@gmail.com>, "Sanchez Tia, Jose J" <jrthurh25@icloud.com>, "Serrato, Adalberto" <serrato@citrusprolnc.com>, Seth Jiles <JILESRANCH@yahoo.com>, Shaun Summers <rebel91656@yahoo.com>, Shrader Family Trust <BARRYSHREIAR@cox.net>, "Simmons, Sarah" <sarahesimmons@gmail.com>, "Skovgard, Mary T" <maryskovgard2@aol.com>, "Slack, Brian & Janie" <slack_bl@yahoo.com>, "Slocum, Herb" <herbnangle@yahoo.com>, "Snyder, Cherie" <ankh677@yahoo.com>, "Stead, Barbara" <shanthi723@yahoo.com>, "Stehly, Frank & Erica" <ESTEHLY@msn.com>, "Strack Van Schijndel, Jeroen" <jeromestrack@aol.com>, Sun Pacific Farming <LINDAS@sunpacific.com>, Susan Carpenter <CARPENTERIMSUE@gmail.com>, Sylvia Corona <scorona@gmail.com>, Tatiana Moore <tatianamarie13@yahoo.com>, Terry Yasutake <terry@tynursery.com>, "Thalmayer, Tim" <pvbrat@live.com>, "Thornton, William" <billthornton724@yahoo.com>, Todd and Cathy Lower <tclower1@gmail.com>, Tom Huggins <tahugg@gmail.com>, Tom Kennedy <TKENNEDY@rainbowmwd.com>, Trevor Smith <smithracing747@yahoo.com>, "Valdivia, Jose" <jose.valdivia@cox.net>, Vanessa Velasquez <vaness.velasquez@yahoo.com>, "Velez, Jose & Sonia" <velezdsm1234@sbcglobal.net>, Veronica Cesmat <vgcesmat89@gmail.com>, Village Nurseries <cstubbs@villagenurseries.com>, "Villalobos, Francisco" <frankvilla24@gmail.com>, Vincent Bernard <AJBERNARD@gmail.com>, "Weiss, Erich" <terce333@gmail.com>, William Berglun <w.c.berglund@gmail.com>, William Collier <COLLIERW@yahoo.com>, William Hahlbohm <JEANETTE@sundanceorganics.com>, William Steed <COMPLIANCE@fairfieldllc.com>, "wpvr101@yahoo.com" <wpvr101@yahoo.com>, "Yuck, Samuel" <SY44@yahoo.com>, Douglas.Humphrey@dgs.ca.gov, rtrcc08@gmail.com, bms0345@gmail.com, b.hooper@musickpeeler.com, carlaburns@hotmail.com, s.wetzler@musickpeeler.com, plumdreams@yahoo.com

Good Afternoon,

Happy New Year! Please see the attached correspondence regarding the Sustainable Groundwater Management Act Stakeholder Engagement Kickoff Meeting from Yuima Municipal Water District.

Sincerely,

Carmen Rodriguez | Administrative Assistant |Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 |

Office: (760) 742-3704 |carmen@yulmamwd.com

Stakholder Enagege 2nd Letter.pdf
43K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

GSA Stakeholder Kickoff Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Wed, Jan 27, 2021 at 10:25 AM
To: Chairman Bo Mazzetti <bomazzetti@aol.com>
Bcc: "Jungreis, Jeremy" <JJungreis@rutan.com>

Good Morning Chairman Mazzetti,

I understand that neither you or any of the other tribal interests in the basin signed up to attend the Stakeholder Outreach Kickoff meeting that is this afternoon. I wanted to provide you the link to join if you change your mind; and I hope you do. Take care.

GSP Stakeholder Engagement Kickoff Meeting

When Wed Jan 27, 2021 4pm – 6:30pm Pacific Time - Los Angeles

Where https://us02web.zoom.us/j/89690926185?pwd=RDNyUmZLSjRVcUlUNXNISTR4RG83UT09 (map)

Who
- carmen@yuimamwd.com - creator

Join from a PC, Mac, iPad, iPhone or Android device:
Please click this URL to join. https://us02web.zoom.us/j/89690926185?pwd=RDNyUmZLSjRVcUlUNXNISTR4RG83UT09
Passcode: 056570

Or join by phone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 900 6833 or +1 408 638 0968 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 646 876 9923
Webinar ID: 896 9092 6185
Passcode: 056570
International numbers available: https://us02web.zoom.us/u/kbRLmkGR9

Kindest Regards,

Amy Reeh | Interim General Manager / Finance & Administrative Services Manager | Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

GSA Executive Team Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Mon, Apr 5, 2021 at 7:58 PM
To: Chairman Bo Mazzetti <bomazzetti@aol.com>
Bcc: Roland Simpson <roland@yuimamwd.com>, Steve Wehr <steve@yuimamwd.com>, Steve Wehr <steve.wehr@yahoo.com>, "Jungreis, Jeremy" <JJungreis@rutan.com>

Dear Chairman Mazzetti,

Please find the link to the Board packet for the next GSA Executive Team meeting which is to take place this Wednesday at 3:00 p.m. I will have my assistant forward the Zoom meeting link.

https://www.yuimamwd.com/newdev/65-services/143-gsp

As always, the IWA is invited to join and encouraged to participate in this meeting.

Chairman Mazzetti, after this morning's LAFCO meeting it occurred to me that you may be unaware of some of the specifics of the 2019 MOU that I referenced in my comments today in relation to the structure of the GSA (before and after 2019), and what the parties agreed to regarding funding of the GSA and the GSP. To this end, I wanted to share with you the final 2019 MOU that memorializes the information to which I referred. Specifically, as you can see on page 6, Section 7(c)(ii) the SLRIWA agreed to contribute $150,000; though the GSA did not receive funds at the time the Request for Qualifications was issued as required by the M.O.U. in section 7(e) from the SLRIWA. I did not make my statements lightly or without having first reviewed the pertinent documents, and that's why I wanted to bring this matter to your attention so hopefully we are able to develop a shared understanding moving forward.

We at PVGSA want to ensure we are keeping faith with you and the other members of the Authority, and that hopefully includes developing a shared understanding of how we got to our current situation--which Yuima and others would very much like to improve upon by working collaboratively with the Tribes on the development of the GSP. To that end, Section 4.1 of the draft JPA Agreement that the Parties have been negotiating includes two voting seats for the SLRIWA, and no financial obligation as a condition of Tribal participation. Please advise when we can discuss the potential return of SLRIWA to the GSP development process in a manner that the Tribes feel comfortable participating.

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

2019 SGMA MOU.pdf
4429K

APPENDIX 2B

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

June 16, 2021 Stakeholder Outreach Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Fri, Jun 11, 2021 at 4:02 PM
To: Amy Reeh <amy@yuimamwd.com>
Cc: Roland Simpson <roland@yuimamwd.com>, Steve Wehr <steve@yuimamwd.com>
Bcc: Anthony Cinquini <anthony@anthonycinquini.com>, "Bennett, Jim" <JIM.BENNETT@sdcounty.ca.gov>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <bill@fairfieldllc.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Carla Burrus <carlaburrus@hotmail.com>, Chairman Bo Mazzetti <bomazzetti@aol.com>, Charles Mathews <mathews.charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Chris Hoyer <chris.h@bermudadunescc.com>, Christopher Griess <chris@griessfamily.com>, "Crow, Leanne" <Leanne.Crow@sdcounty.ca.gov>, "Douglas.Humphrey@dgs.ca.gov" <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@me.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <frtizstumpges@gmail.com>, Gregg and Lori Johnson <lajsn1234@gmail.com>, "Hooper, Bobbie" <b.hooper@musickpeeler.com>, Jack Hoagland <Jehassociates@msn.com>, Jackson Ranch LLC <robert@jacksontriallawyers.com>, Jeannie Schell <jjisgma@gmail.com>, Jim Cipriano <jecippy@gmail.com>, John Beresford <john.beresford@lajolla-nsn.gov>, Lauren Wicks <LWicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <deniseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mootamai Municipal Water District <mootamaimwd@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paul Marangella <pmmaran@gmail.com>, Ray Rodriguez <rtcc08@gmail.com>, "Regmi, Anita@DWR" <Anita.Regmi@water.ca.gov>, Ricardo Cortez <zetrocr@gmail.com>, Spencer Steed <spencer@rairfieldllc.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, "Wetzler, Sandra" <S.Wetzler@musickpeeler.com>, Bobby Graziano <bobby.graziano@gmail.com>, Mike Perricone <michaelperricone31@gmail.com>, Greg Kamin <atranchllc@gmail.com>, "W. Lyall" <wclyall@gmail.com>, Andy Lyall <awlyall@gmail.com>, Oggie Watson <oggie@tynursery.com>, Gary Arant <GArant@vcmwd.org>, Jack Hall <info@lazyh.com>

Good Afternoon All,

Please find the agenda for the June 16th Stakeholder Outreach Meeting attached. I have also included a link to the meeting below. Please feel free to contact me or my assistant Carmen with any questions.

Amy Reeh is inviting you to a scheduled Zoom meeting.

Topic: GSA Stakeholder Outreach
Time: Jun 16, 2021 04:00 PM Pacific Time (US and Canada)

Join Zoom Meeting
https://us02web.zoom.us/j/7607423704?pwd=MVVqeFBoMk1BUitwckZvWFd0RzE1Zz09

Meeting ID: 760 742 3704
Passcode: 26163704
One tap mobile
+14086380968,,7607423704#,,,,*26163704# US (San Jose)
+16699006833,,7607423704#,,,,*26163704# US (San Jose)

Dial by your location
+1 408 638 0968 US (San Jose)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 646 876 9923 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
Meeting ID: 760 742 3704
Passcode: 26163704

Find your local number: https://us02we...com.us/u/kAjgm6E13

APPENDIX 2B

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: 760-742-3704 | amy@yuimamwd.com

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLRGSA20210616.pdf
73K

GSA Executive Team Meeting

1 message

Carmen Rodriguez <carmen@yulmamwd.com> Fri, Jun 25, 2021 at 2:50 PM
To: Amy Reeh <amy@yulmamwd.com>
Bcc: Andy Lyall <awlyall@gmail.com>, Anita Regmi <anita.regmi@water.ca gov>, Bo Mazzetti <bomazzetti@aol.com>, Bobby Graziano <bobby.graziano@gmail.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, Greg Kamin <atranchllc@gmail.com>, Jack Hoagland <jehassociates@msn.com>, Jeremy Jungreis <JJungreis@rutan.com>, Jim Bennett <Jim Bennett@sdcounty.ca.gov>, Leanne Crow <Leanne.Crow@sdcounty.ca.gov>, Michael Perricone <michaelperricone31@gmail.com>, Roland Simpson <roland@yulmamwd.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve@yulmamwd.com>, Warren Lyall <wclyall@gmail.com>

Good afternoon,

Please find the attached meeting packet for next week's GSA Meeting. If you have any questions or concerns feel free to contact Amy. I will be sending the link to the Zoom Meeting shortly.

I hope everyone has a great weekend.

Sincerely,

Carmen Rodriguez | Administrative Assistant |Yulma Municipal Water District

P.O. Box 177 | Pauma Valley, CA 92061 |

Office: (760) 742-3704|carmen@yulmamwd.com

USLR GSA 2021-06-02 Board Packet.pdf
8322K

Re: GSA Executive Meeting

1 message

Steve Wehr <steve.wehr@yahoo.com> Fri, Jun 25, 2021 at 3:09 PM
To: carmen@yulmamwd.com
Cc: roland@yulmamwd.com, mcmillanfarmmgmt@msn.com, bobby.graziano@gmail.com, atranchllc@gmail.com, michaelperricone31@gmail.com, jjungreis@rutan.com, Steve.Anderson@bbklaw.com, jim.bennett@sdcounty.ca.gov, leanne.crow@sdcounty.ca.gov, anita.regmi@water.ca.gov, jehassociates@msn.com, bomazzetti@aol.com, wclyall@gmail.com, awlyall@gmail.com

This is a combo meeting with the exec committee and Geo Science correct?? I only have Geo Science on the calendar as of now.

Sent from my IPad

On Jun 25, 2021, at 14:52, carmen@yulmamwd.com wrote:

Please find Zoom Meeting Details

GSA Executive Meeting

When Wed Jun 30, 2021 3pm – 4:30pm Pacific Time - Los Angeles

Where https://us02web.zoom.us/j/7607423704?pwd=ekVubWtLakhjNThwdUM5U3p0bWxyUT09 (map)

Who • carmen@yulmamwd.com - creator

Amy Reeh is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting
https://us02web.zoom.us/j/7607423704?pwd=ekVubWtLakhjNThwdUM5U3p0bWxyUT09

Meeting ID: 760 742 3704
Passcode: 302106
One tap mobile
+14086380968,,7607423704#,,,,*302106# US (San Jose)
+16699006833,,7607423704#,,,,*302106# US (San Jose)

Dial by your location
+1 408 638 0968 US (San Jose)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 646 876 9923 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
Meeting ID: 760 742 3704
Passcode: 302106
Find your local number: https://us02web.zoom.us/u/kAjgm6E13

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Fwd: Zoom Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Tue, Sep 14, 2021 at 7:50 AM
To: Amy Reeh <amy@yuimamwd.com>
Bcc: Roland Simpson <roland@yuimamwd.com>, Steve Wehr <steve.wehr@yahoo.com>, Greg Kamin <atranchllc@gmail.com>, Mike Perricone <michaelperricone31@gmail.com>, Charles Bandy <cbandy.mfm@gmail.com>, Bobby Graziano <bobby.graziano@gmail.com>, Warren Lyall <wclyall@gmail.com>, Andy Lyall <awlyall@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Lauren Wicks <LWicks@geoscience-water.com>, Chairman Bo Mazzetti <bomazzetti@aol.com>, "Regmi, Anita@DWR" <Anita.Regmi@water.ca.gov>, "Bennett, Jim" <JIM.BENNETT@sdcounty.ca.gov>, "Crow, Leanne" <Leanne.Crow@sdcounty.ca.gov>, "Jungreis, Jeremy" <JJungreis@rutan.com>, Steve Anderson <steve.anderson@bbklaw.com>, Jack Hoagland <Jehassociates@msn.com>

Good Afternoon All,

I hope this email finds you well.

Please find the link to the GSA Executive Team meeting on Wednesday, September 15 at 3:00 p.m. below. Also attached please find the packet for that meeting.

Please feel free to contact me with any questions.

Join Zoom Meeting

https://us02web.zoom.us/j/7607423704?pwd=dXJGZDA1b1BpeWFhcngvSW5BVzJqZz09
Meeting ID: 760 742 3704
Passcode: 20215

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLR GSA 2021-09-15.pdf
192K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Revised agenda

1 message

Amy Reeh <amy@yuimamwd.com> Wed, Sep 29, 2021 at 5:36 PM
To: Amy Reeh <amy@yuimamwd.com>
Bcc: Andy Lyall <awlyall@gmail.com>, Anita Regmi <Anita.Regmi@water.ca.gov>, Anthony Cinquini <anthony@anthonycinquini.com>, "Bennett, Jim" <JIM.BENNETT@sdcounty.ca.gov>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <Bill@fairfieldllc.com>, Bo Mazzetti <bomazzetti@aol.com>, Bobbie Hooper <b.hooper@musickpeeler.com>, Bobby Graziano <bobby.graziano@gmail.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Bruce Knox <bknox@dlginsurance.net>, "Cari Dale (CDale@oceansideca.org)" <CDale@oceansideca.org>, Carla Burrus <carlaburrus@hotmail.com>, Charles Mathews <Mathews.charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Chris Hoyer <chris.h@bermudadunescc.com>, Christopher Griess <chris@griessfamily.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, "Crow, Leanne" <Leanne.Crow@sdcounty.ca.gov>, Don Broomell <don.broomell5@gmail.com>, Douglas Humphrey <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@mac.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Fan Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <fritzstumpges@gmail.com>, Gary Arant <garant@vcmwd.org>, Greg Kamin <atranchllc@gmail.com>, Jack Hall <info@lazyh.com>, Jack Hoagland <jehassociates@msn.com>, Jeannie Schell <jjs1sgma@gmail.com>, Jim Bennett <jim.bennett@sdcounty.ca.gov>, Jim Cipriano <jecippy@gmail.com>, John Beresford <john.beresford@lajolla-nsn.gov>, "Jungreis, Jeremy" <JJungreis@rutan.com>, Laney Villalobos <Laneyforyuimawaterdistrict1@gmail.com>, Lauren Wicks <lwicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Leanne Crow <leanne.crow@sdcounty.ca.gov>, Lori Johnson <lajsn1234@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <deniseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mike Perricone <michaelperricone31@gmail.com>, Mootamai <mootamaimwd@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paige Hughes <tncgroundwater@gmail.com>, Paul Marangella <PMMARAN@gmail.com>, Ray Rodriguez <rtrcc08@gmail.com>, Ricardo Cortez <zetrocr@gmail.com>, Richard Williamson <Richard@williamsonengineers.com>, Robert Jackson <robert@jacksontriallawyers.com>, Roland Simpson <roland@yuimamwd.com>, Sandra Wetzler <s.wetzler@musickpeeler.com>, Spencer Steed <spencer@fairfieldllc.com>, Stephanie Hastings <shastings@bhfs.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve.wehr@yahoo.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tim Lyall <LyallRanch@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, Warren Lyall <wclyall@gmail.com>

My apologies, the meeting is on Wednesday, October 6th. Please see the revised agenda attached.

Kindest Regards,

Amy Reeh | General Manager | Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: 760-742-3704 | amy@yuimamwd.com

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLR GSA 2021-10-06.pdf
87K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Groundwater Sustainability Stakeholder Outreach

1 message

Amy Reeh <amy@yuimamwd.com> Wed, Sep 29, 2021 at 5:05 PM
To: Amy Reeh <amy@yuimamwd.com>
Bcc: Andy Lyall <awlyall@gmail.com>, Anita Regmi <Anita.Regmi@water.ca.gov>, Anthony Cinquini <anthony@anthonycinquini.com>, "Bennett, Jim" <JIM.BENNETT@sdcounty.ca.gov>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <Bill@fairfieldllc.com>, Bo Mazzetti <bomazzetti@aol.com>, Bobbie Hooper <b.hooper@musickpeeler.com>, Bobby Graziano <bobby.graziano@gmail.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Bruce Knox <bknox@dlginsurance.net>, Cari Dale <cdale@oceanside.org>, Carla Burrus <carlaburrus@hotmail.com>, Charles Mathews <Mathews.charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Chris Hoyer <chris.h@bermudadunescc.com>, Christopher Griess <chris@griessfamily.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, Don Broomell <don.broomell5@gmail.com>, Douglas Humphrey <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@mac.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Fan Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <fritzstumpges@gmail.com>, Gary Arant <garant@vcmwd.org>, Greg Kamin <atranchllc@gmail.com>, Jack Hall <info@lazyh.com>, Jack Hoagland <jehassociates@msn.com>, Jeannie Schell <jjs1sgma@gmail.com>, Jim Cipriano <jecippy@gmail.com>, John Beresford <john.beresford@lajolla-nsn.gov>, "Jungreis, Jeremy" <JJungreis@rutan.com>, Laney Villalobos <Laneyforyuimawaterdistrict1@gmail.com>, Lauren Wicks <lwicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Leanne Crow <leanne.crow@sdcounty.ca.gov>, Lori Johnson <lajsn1234@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <deniseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mike Perricone <michaelperricone31@gmail.com>, Mootamai <mootamaimwd@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paige Hughes <tncgroundwater@gmail.com>, Paul Marangella <PMMARAN@gmail.com>, Ray Rodriguez <rtrcc08@gmail.com>, Ricardo Cortez <zetrocr@gmail.com>, Richard Williamson <Richard@williamsonengineers.com>, Robert Jackson <robert@jacksontriallawyers.com>, Roland Simpson <roland@yuimamwd.com>, Sandra Wetzler <s.wetzler@musickpeeler.com>, Spencer Steed <spencer@fairfieldllc.com>, Stephanie Hastings <shastings@bhfs.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve.wehr@yahoo.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tim Lyall <LyallRanch@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, Warren Lyall <wclyall@gmail.com>

Good Afternoon,

Please find the agenda for the next Upper San Luis Rey Groundwater Basin Stakeholder Outreach meeting attached. Located within the agenda are both a link to the Zoom meeting and a link to the next chapter that will be discussed.

Please feel free to contact me should you have any questions.regarding the meeting.

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLR GSA 2021-10-06.pdf
87K

Website Contact: GSP

1 message

Yuma Municipal Water District <travis@parker-mail.com> Thu, Oct 21, 2021 at 10:48 AM
To: gsa@yumamwd.com

Copy of request
Subject: GSP
Message: Please add my name to your mailing lit of inerested parties regarding progress toward adoption of a GSP.

Sent by details
Name: Art Bunce
Email: buncelaw@aol com
Mailing Address: P.O. Box 2516, Escondido, CA 92033

Sent from details
Sent from this website: Yuma Municipal Water District
Sent from this URL: https://www.yumamwd.com/newdev/ground-water-future-updates

GSP
1 message

GSA Group <gsa@yuimamwd.com>
To: buncelaw@aol.com

Thu, Oct 21, 2021 at 11:02 AM

Good morning Art,

We received your request to be added to the GSP list. We have added your contact information to our email list. Have a great day!

Sincerely,

Carmen Rodriguez | Administrative Assistant |Yuima Municipal Water District

P.O. Box 177 | Pauma Valley, CA 92061 |

Office: (760) 742-3704|carmen@yuimamwd.com

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Special Executive Team Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Mon, Nov 8, 2021 at 2:49 PM
To: Amy Reeh <amy@yuimamwd.com>
Bcc: "Regmi, Anita@DWR" <Anita.Regmi@water.ca.gov>, "Bennett, Jim" <JIM.BENNETT@sdcounty.ca.gov>, "Crow, Leanne" <Leanne.Crow@sdcounty.ca.gov>, Roland Simpson <roland@yuimamwd.com>, Steve Wehr <steve.wehr@yahoo.com>, Charles Bandy <cbandy.mfm@gmail.com>, Bobby Graziano <bobby.graziano@gmail.com>, Greg Kamin <atranchllc@gmail.com>, Mike Perricone <michaelperricone31@gmail.com>, Warren Lyall <wclyall@gmail.com>, "Jungreis, Jeremy" <JJungreis@rutan.com>, Steve Anderson <steve.anderson@bbklaw.com>, Bo Mazzetti <bomazzetti@aol.com>

Good Afternoon All,

Please find the Board Packet for the Special Executive Team Meeting for tomorrow afternoon at 3:00 p.m.

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

USLR GSA 2021-11-09 Packet.pdf
439K

GSA Stakeholder Outreach Meeting

1 message

GSA Group <gsa@yulmamwd.com> Tue, Nov 9, 2021 at 9:17 AM
To: Amy Reeh <amy@yulmamwd.com>
Bcc: mootamaimwd@gmail.com, Andy Lyall <awlyall@gmail.com>, Anita Regmi <Anita.Regmi@water.ca.gov>, Anthony Cinquini <anthony@anthonycinquini.com>, Art Bunce <buncelaw@aol.com>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <Bill@fairfieldllc.com>, Bobbie Hooper <b.hooper@musickpeeler.com>, Bobby Graziano <bobby.graziano@gmail.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Bruce Knox <bknox@dlginsurance.net>, Cari Dale <cdale@oceanside.org>, Carla Burrus <carlaburrus@hotmail.com>, Charles Mathews <Mathews charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Chris Hoyer <chris.h@bermudadunescc.com>, Christopher Griess <chris@griessfamily.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, Don Broomell <don.broomell5@gmail.com>, Douglas Humphrey <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@mac.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Fan Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <fritzstumpges@gmail.com>, Gary Arant <garant@vcmwd.org>, Greg Kamin <atranchllc@gmail.com>, Jack Hall <info@lazyh.com>, Jack Hoagland <jehassociates@msn.com>, Jeannie Schell <jjs1sgma@gmail.com>, Jeremy Jungreis <JJungreis@rutan.com>, Jim Cipriano <jecippy@gmail.com>, Jime Bennett <jim.bennett@sdcounty.ca.gov>, John Beresford <john.beresford@lajolla-nsn.gov>, Laney Villalobos <Laneyforyulmawaterdistrict1@gmail.com>, Lauren Wicks <lwicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Leanne Crow <leanne.crow@sdcounty.ca.gov>, Lori Johnson <lajsn1234@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <denlseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mike Perricone <michaelperricone31@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paige Hughes <tncgroundwater@gmail.com>, Paul Marangella <PMMARAN@gmail.com>, Ray Rodriguez <rtrcc08@gmail.com>, Ricardo Cortez <zetrocr@gmail.com>, Richard Williamson <Richard@williamsonengineers.com>, Robert Jackson <robert@jacksontriallawyers.com>, Roland Simpson <roland@yulmamwd.com>, Sandra Wetzler <s.wetzler@musickpeeler.com>, Spencer Steed <spencer@fairfieldllc.com>, Stephanie Hastings <shastings@bhfs.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve.wehr@yahoo.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, Warren Lyall <wclyall@gmail.com>

Good morning,

I hope this email finds everyone well. Please find the attached meeting packet for next week's GSA Stakeholder Outreach Meeting. The meeting will be held via Zoom (link provided in the agenda) on Monday, November 15, 2021 at 4:00 p.m. If you have any questions or concerns feel free to contact me. Have a wonderful day.

Sincerely,

Carmen Rodriguez | Administrative Assistant |Yulma Municipal Water District

P.O. Box 177 | Pauma Valley, CA 92061 |

Office: (760) 742-3704 |carmen@yulmamwd.com

2021-11-15 packet.pdf
3935K

Important Notice Re: Pauma Valley GSA

1 message

GSA Group <gsa@yuimamwd.com> Tue, Nov 23, 2021 at 12:40 AM
To: Andy Lyall <awlyall@gmail.com>, Andy Lyall <LYALLRANCH@gmail.com>, Anita Regmi <Anita.Regmi@water.ca.gov>, Anthony Cinquini <anthony@anthonycinquini.com>, Art Bunce <buncelaw@aol.com>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <Bill@fairfieldllc.com>, Bobby Graziano <bobby.graziano@gmail.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Bruce Knox <bknox@dlginsurance.net>, Carl Dale <cdale@oceansideca.org>, Carla Burrus <carlaburrus@hotmail.com>, Charles Mathews <Mathews.charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Chris Hoyer <chris.h@bermudadunescc.com>, Christopher Griess <chris@griessfamily.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, Don Broomell <don.broomell5@gmail.com>, Douglas Humphrey <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@mac.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Fan Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <fritzstumpges@gmail.com>, Gary Arant <garant@vcmwd.org>, Greg Kamin <atranchllc@gmail.com>, Jack Hall <info@lazyh.com>, Jack Hoagland <jehassociates@msn.com>, Jeannie Schell <jjs1sgma@gmail.com>, Jeremy Jungreis <JJungreis@rutan.com>, Jim Cipriano <jecippy@gmail.com>, Jime Bennett <jim.bennett@sdcounty.ca.gov>, John Beresford <john.beresford@lajolla-nsn.gov>, Laney Villalobos <Laneyforyuimawaterdistrict1@gmail.com>, Lauren Wicks <lwicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Leanne Crow <leanne.crow@sdcounty.ca.gov>, Lori Johnson <lajsn1234@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <deniseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mike Perricone <michaelperricone31@gmail.com>, Mootamai MWD <mootamaimwd@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paige Hughes <tncgroundwater@gmail.com>, Paul Marangella <PMMARAN@gmail.com>, Ray Rodriguez <rtrcc08@gmail.com>, Ricardo Cortez <zetrocr@gmail.com>, Richard Williamson <Richard@williamsonengineers.com>, Robert Jackson <robert@jacksontriallawyers.com>, Roland Simpson <roland@yuimamwd.com>, Sandra Wetzler <s.wetzler@musickpeeler.com>, Spencer Steed <spencer@fairfieldllc.com>, Stephanie Hastings <shastings@bhfs.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve.wehr@yahoo.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, Warren Lyall <wclyall@gmail.com>

Please see the attached document regarding the Pauma Valley Groundwater Sustainability Agency's posting of a draft Groundwater Sustainability Plan.

Public Comment Notice.pdf
62K

Pauma Valley GSA Stakeholder Outreach

1 message

GSA Group <gsa@yulmamwd.com> Fri, Dec 3, 2021 at 7:27 AM
To: Amy Reeh <amy@yulmamwd.com>, Carmen Rodriguez <carmen@yulmamwd.com>
Bcc: Andy Lyall <awlyall@gmail.com>, Andy Lyall <LYALLRANCH@gmail.com>, Anita Regmi <Anita.Regmi@water.ca.gov>, Anthony Cinquini <anthony@anthonycinquini.com>, Art Bunce <buncelaw@aol.com>, Bernardo Marquez <plumdreams@yahoo.com>, Bill Knutson <wdknute@yahoo.com>, Bill Steed <Bill@fairfieldllc.com>, Bobby Graziano <bobby.graziano@gmail.com>, Bradley Smith <bms0345@gmail.com>, Brian Villalobos <bvillalobos@geoscience-water.com>, Bruce Knox <bknox@dlginsurance.net>, Carl Dale <cdale@oceansideca.org>, Carla Burrus <carlaburrus@hotmail.com>, Charles Mathews <Mathews.charles@gmail.com>, Charles Stubbs <cstubbs@everde.com>, Charm Crandall <charm@charmlogandesigns.com>, Christopher Griess <chris@griessfamily.com>, Chuck Bandy <mcmillanfarmmgmt@msn.com>, Don Broomell <don.broomell5@gmail.com>, Douglas Humphrey <Douglas.Humphrey@dgs.ca.gov>, Earl Rutz <earlrutz1@mac.com>, Ellen Anderson <ellenanderson555@gmail.com>, Emily Fan Michaelson <emichaelson@katzandassociates.com>, Fritz Stumpges <fritzstumpges@gmail.com>, Gary Arant <garant@vcmwd.org>, Greg Kamin <atranchllc@gmail.com>, Jack Hall <info@lazyh.com>, Jack Hoagland <jehassociates@msn.com>, Jeannie Schell <jjs1sgma@gmail.com>, Jeremy Jungreis <JJungreis@rutan.com>, Jim Bennett <jim.bennett@sdcounty.ca.gov>, Jim Cipriano <jecippy@gmail.com>, John Beresford <john.beresford@lajolla-nsn.gov>, Laney Villalobos <Laneyforyulmawaterdistrict1@gmail.com>, Lauren Wicks <lwicks@geoscience-water.com>, Laurie Kariya <pvcchouse@gmail.com>, Leanne Crow <leanne.crow@sdcounty.ca.gov>, Lori Johnson <lajsn1234@gmail.com>, Lorna Ross <lornahross@hotmail.com>, Lydia Vogt <lvogt6900@gmail.com>, Michael Gibson <deniseandmikeg@att.net>, Michael Robertson <mr@michaelrobertson.com>, Mike Perricone <michaelperricone31@gmail.com>, Mootamai MWD <mootamaimwd@gmail.com>, Norma Larios <nlarios@csusm.edu>, Paige Hughes <tncgroundwater@gmail.com>, Paul Marangella <PMMARAN@gmail.com>, Ray Rodriguez <rtrcc08@gmail.com>, Ricardo Cortez <zetrocr@gmail.com>, Richard Williamson <Richard@williamsonengineers.com>, Robert Jackson <robert@jacksontriallawyers.com>, Roland Simpson <roland@yulmamwd.com>, Sandra Wetzler <s.wetzler@musickpeeler.com>, Spencer Steed <spencer@fairfieldllc.com>, Stephanie Hastings <shastings@bhfs.com>, Steve Anderson <Steve.Anderson@bbklaw.com>, Steve Wehr <steve.wehr@yahoo.com>, Subhash Patel <kkmpsilvermink@gmail.com>, Tom McAndrews <tmcandrews@pauma-nsn.gov>, Tricia Arredondo <tarredondo2018@gmail.com>, Warren Lyall <wclyall@gmail.com>, Bo Mazzetti <bomazzetti@aol.com>

Good Morning PVGSA Stakeholders,

The Pauma Valley GSA will conduct a Stakeholder Outreach meeting to review the Draft Groundwater Sustainability Plan that was released for public comment on November 23, 2021 with a question and answer session after the review. Please click the link below to register for the meeting.

You are invited to a Zoom webinar.
When: Dec 8, 2021 04:00 PM Pacific Time (US and Canada)
Topic: Pauma Valley GSA Stakeholder Outreach

Register in advance for this webinar:
https://us02web.zoom.us/webinar/register/WN_s1WoK4SITGKpso24pZbIbA

After registering, you will receive a confirmation email containing information about joining the webinar.

Please note that any official public comments regarding the draft plan must be submitted in writing by January 7, 2022. The Notice and directions for comment submission are also attached to this email for your convenience.

2 attachments

Public Comment Notice (1).pdf
62K

USLR GSA 2021-12-08 Stakeholder meeting.pdf
52K

Gmail GSA Group <gsa@yumamwd.com>

Re: Upper San Luis Rey Groundwater Subbasin G.S.A Executive Team Meeting

1 message

GSA Group <gsa@yumamwd.com>
To: Jeff Helsley <jeffh@stetsonengineers.com>

Fri, Dec 3, 2021 at 12:54 PM

Hi Jeff,

Please find the Zoom link below per your request. Let me know if you have any questions or concerns.

Join Zoom Meeting
https://us02web.zoom.us/j/76074237047pwd=L05IQzF1bVNrMHo4aHhRdzkxYktrUT09
Meeting ID: 760 742 3704
Passcode: 901121

Sincerely,

Carmen Rodriguez

On Fri, Dec 3, 2021 at 10:47 AM Jeff Helsley <jeffh@stetsonengineers.com> wrote:

> Hello,
>
> I would like to get the Zoom link for the Upper San Luis Rey Groundwater Subbasin G.S.A Executive Team meeting at 9am on December 6, 2021.
>
> Thank you
>
> Jeff Helsley

Jeff Helsley, PE Engineering Manager T: 626-967-6202 jeffh@stetsonengineers.com

STETSON ENGINEERS INC. 861 Village Oaks Drive, Suite 100, Covina CA 91724

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

PVGSA Executive Team Meeting

1 message

Amy Reeh <amy@yuimamwd.com> Fri, Dec 3, 2021 at 7:40 AM
To: Bo Mazzetti <bomazzetti@aol.com>
Cc: "Jungreis, Jeremy" <JJungreis@rutan.com>
Bcc: Steve Anderson <steve.anderson@bbklaw.com>

Good Morning Chairman Mazzetti,

Please find a copy of the agenda for the next GSA Executive Team Meeting attached to this email.

As always, the team welcomes and encourages you, or any representative you choose, to participate in the meeting.

Thank you; I hope you have a pleasant day.

Kindest Regards,

Amy Reeh | General Manager| Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

REVISED USLR GSA 2021-12-06 Special.pdf
60K

Corresp Re: Facilitation

Department of Water Resources
Facilitation Support Services Application

The Department of Water Resources (DWR) is offering Facilitation Support Services (FSS) to help GSAs and local water management groups foster discussions among diverse water management interests and jurisdictions in support of Sustainable Groundwater Management Act (SGMA) implementation.

For questions or assistance with this FSS Application, please contact Simar Dhanota at Simarjit.Dhanota@water.ca.gov or (916) 651-0889.

I. Applicant Background: *(Questions 1-6 of 17)*

* **1) Select the groundwater basin/subbasin that is requesting FSS:**
SAN LUIS REY VALLEY - UPPER SAN LUIS REY VALLEY (9-007.01)

* **2) Enter applicant information:**
Applicant Name: Yuima Municipal Water District
Point of Contact: Amy Reeh
Phone Number: 760-742-3704
Email Address: amy@yuimamwd.com

* **3) Is the applicant affiliated with a GSA?**
Which GSA is the applicant affiliated with, or if not affiliated with a GSA, briefly describe how the request for professional facilitation will aid SGMA implementation for the groundwater basin/subbasin identified above, and how the applicant plans to work with the GSAs.
Yes, affiliated with a GSA

Pauma Valley GSA (Upper San Luis Rey GSA)

* **4) Please provide a brief narrative discussion on the applicant's current involvement, roles, and responsibilities regarding SGMA implementation activities located within the groundwaterbasin/subbasin.**
Yuima Municipal Water District is the lead agency of the Groundwater Sustainability Agency (GSA). Yuima holds two grants whose funds are being utilized to develop a Groundwater Sustainability Plan (GSP). Yuima has contracted with a consultant to develop the GSP. As the lead agency Yuima holds monthly GSA meetings to coordinate the GSP development process.

* **5) What other professional facilitation funding or services has the applicant received from the State?**
- [ ] **None**
- [ ] **DWR Prop 1**
- [ ] **DWR Prop 68**
- [x] **DWR Facilitation Support Services**
- [ ] **State Water Resources Control Board**
- [ ] **Other** *(please specify)*

6) Please explain the scope of any active professional facilitation.
N/A

II. Collaboration within and across Groundwater Basin/Subbasin Boundaries: *(Questions 7-10 of 17)*

* **7) List all GSAs (and/or other water management entities) within the groundwater basin/subbasin that the applicant is currently collaborating with, or intends to collaborate with, on SGMA implementation:**
The Pauma Valley GSA (or Upper San Luis Rey GSA) is the only GSA in the basin / sub-basin. This GSA is comprised of three local agencies: Yuima Municipal Water District, Upper San Luis Rey Resource Conservation District, and Pauma Valley Community

Services District.

* **8) Are there any GSAs (and/or other water management entities) *across* the groundwater basin/subbasin boundary, that the applicant currently is, or intends to collaborate with, on SGMA implementation?**

No

* **9) Please discuss the nature of collaboration. What are the GSAs collaborating on?**

N/A

* **10) Which beneficial uses and users of groundwater has the applicant established a venue for engagement, or plans to establish a venue for engagement?(List all applicable uses and users of groundwater – see Water Code Section 10723.2)**

Although the basin is comprised mainly of commercial agricultural interests, there are many different stakeholders. Located within the basin are three municipal water districts, 6 mutual water companies, tribal interests and uses, private pumpers, hundreds of domestic users and several commercial endeavors. The GSA has established a comprehensive stakeholder outreach list that includes every parcel owner in the basin.

III. Facilitation Needs: *(Questions 11-14 of 17)*

* **11) Please explain the key challenges the applicant has encountered that has led to the need for professional facilitation.**

The GSA has had difficulty engaging the participation of the Tribes in the basin. Since an impasse was reached within the 2019 GSP Development Executive Team and the GSA had to move forward under the original governance structure, the Tribes have repeated decline the GSA's invitations to participate.

* **12) DWR's FSS program requires applicants to have a well-defined goal for the requested services. What is the applicant's goal for professional facilitation?**

The facilitate a meeting with the Tribal interests of the basin in an effort to determine their concerns and how the GSA can address those concerns in order to develop a cohesively working GSP development team that includes Tribal participation.

* **13) Which facilitation support services are you seeking?** *(select all that apply)*

- [ ] **Stakeholder assessment**
- [x] **Tribal government outreach and engagement**
- [x] **Meeting facilitation**
- [ ] **Intra-basin and inter-basin coordination support**
- [ ] **Interest-based negotiations/consensus building**
- [ ] **Stakeholder communication and engagement planning and support**
- [ ] **Public and stakeholder outreach**
- [ ] **Governance development**
- [ ] **Targeted outreach to underrepresented groundwater users - Severely disadvantaged communities/ disadvantaged communities**
- [ ] **Targeted outreach to underrepresented groundwater users - Private domestic well owners**
- [ ] **Targeted outreach to underrepresented groundwater users - Small growers**
- [ ] **Targeted outreach to underrepresented groundwater users - Communities on small water systems**
- [ ] **Targeted outreach to underrepresented groundwater users - Other *(please specify)***

14) Regarding SGMA implmentation activities, is there any additional information you would like to provide that professional facilitation will help support?

No

IV. Applicant's Commitments: *(Questions 15-16 of 17)*

* **15) DWR requires ALL of the following commitments from applicants benefiting from DWR's FSS program. Please review and select the commitments you agree to:**

- [x] **Commit to meet regularly and work diligently toward a clear and defined goal.**
- [x] **Agree to work in an open, inclusive, and collaborative manner toward SGMA implementation.**

- [x] **Support an inclusive process that encourage and welcomes involvement of all stakeholders and interested parties.**
- [x] **Commit to providing a meeting space that is suitably located and sized.**

Is there any additional information you would like to add?

No

16) Are there any other considerations DWR should take into account?

No

V. Anticipated Tasks and Timeline: *(Questions 17 of 17)*

17) Please summarize anticipated tasks, deliverables, and completion dates to be completed with support of DWR FSS.
(Applicants can use the text box or attach files below.)

While there are no specific completion date for facilitating a possible meeting with the Tribal interests of the basin; the GSA is hoping to accomplish development of a working relationship with the Tribes as soon as possible so that they can participate in every facet of the GSP development process.

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

Receipt of FSS Application for Upper San Luis Rey Valley Subbasin

1 message

Dhanota, Simarjit@DWR <Simarjit.Dhanota@water.ca.gov> Thu, Nov 12, 2020 at 1:19 PM
To: Amy Reeh <amy@yuimamwd.com>
Cc: "Regmi, Anita@DWR" <Anita.Regmi@water.ca.gov>, "Ross, Timothy@DWR" <Timothy.Ross@water.ca.gov>, "Moniz, Brian@DWR" <Brian.Moniz@water.ca.gov>

Hello Ms. Reeh,

DWR has received Yuima Municipal Water District's application for Facilitation Support Services for Upper San Luis Rey Valley subbasin; it is under review. A copy of the application is attached for your records.

DWR staff will contact you if there are questions regarding the request.

Sincerely,

Simar Dhanota

SanLuisReyValley_20201112.pdf
141K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

FW: Receipt of FSS Application for Upper San Luis Rey Valley Subbasin

1 message

Moyle, Craig <craig.moyle@stantec.com>
To: "amy@yuimamwd.com" <amy@yuimamwd.com>

Wed, Nov 18, 2020 at 4:44 PM

Ms. Reeh,

Good evening. I hope this message finds you, our family and colleagues well. By way of introduction, I serve as the senior managing facilitator and project manage for the DWR Facilitation Support Service Program. I work directly with Simar Dhanota and Keith Wallace on preparation of the scope, schedule and budget for professional facilitation services to GSAs based on their application.

As mentioned by Simar's email to you below, a meeting was held today to discuss the application and identify the appropriate next steps. Among my next steps is to introduce myself to you and schedule a follow up call to discuss your application. Would you have time mid-afternoon Thursday or Friday afternoon work with your schedule?

Kind regards,

Craig

Craig Moyle, PMP

Principal Public Affairs Specialist
Stantec

3301 C Street, Suite 1900

Sacramento, Calif. 95816

Phone: +1 (916) 418-8248

Cell: +1 (916) 642-6383

Craig.Moyle@stantec.com

APPENDIX 2B

From: Dhanota, Simarjit@DWR <Simarjit.Dhanota@water.ca.gov>
Sent: Tuesday, November 17, 2020 5:16 PM
To: Moyle, Craig <craig.moyle@stantec.com>
Subject: FW: Receipt of FSS Application for Upper San Luis Rey Valley Subbasin

For our discussion tomorrow.

From: Dhanota, Simarjit@DWR
Sent: Thursday, November 12, 2020 1:19 PM
To: Amy Reeh <amy@yuimamwd.com>
Cc: Regmi, Anita@DWR <Anita.Regmi@water.ca.gov>; Ross, Timothy@DWR <Timothy.Ross@water.ca.gov>; Moniz, Brian@DWR <Brian.Moniz@water.ca.gov>
Subject: Receipt of FSS Application for Upper San Luis Rey Valley Subbasin

Hello Ms. Reeh,

DWR has received Yuima Municipal Water District's application for Facilitation Support Services for Upper San Luis Rey Valley subbasin; it is under review. A copy of the application is attached for your records.

DWR staff will contact you if there are questions regarding the request.

Sincerely,

Simar Dhanota

SanLuisReyValley_20201112.pdf
141K

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

FW: Karuk Tribe/Siskiyou County MOU

1 message

Moyle, Craig <craig.moyle@stantec.com>
To: Amy Reeh <amy@yuimamwd.com>

Thu, Nov 19, 2020 at 4:06 PM

Amy,

Very nice to meeting you virtually this evening. Attached is the MOU that was prepared by our team with the Karuk tribe in Northern California.

Kind regards,

Craig

FLD_20200317_Karuk SGMA MOU - Executed.pdf
241K

APPENDIX 2B

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE SISKIYOU COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
AND
THE KARUK TRIBE

This Memorandum of Understanding is entered into by and between the Karuk Tribe ("Tribe") and the Siskiyou County Flood Control and Water Conservation District ("District"), collectively referred to as "the Parties".

WHEREAS, in September of 2014, the Governor of the State of California signed legislation known as the Sustainable Groundwater Management Act, codified as California Water Code, §§ 10720 *et seq.*, ("SGMA") that requires groundwater resources throughout California to be managed by local Groundwater Sustainability Agencies; and,

WHEREAS, the District has been designated by the California Department of Water Resources as the Groundwater Sustainability Agency ("GSA") for the Butte, Scott and Shasta Valley Groundwater Basins ("Basins"); and,

WHEREAS, the Basins have been designated under SGMA as medium priority basins, requiring the District to prepare and adopt a Groundwater Sustainability Plan ("GSP") for the Basins by January 31, 2022; and,

WHEREAS, the Tribe is a federally recognized Indian tribe; and,

WHEREAS, the District recognizes the established Federal and State laws under which Native American tribal governments are treated as distinct legal and political entities, with their own powers of self-governance and self-determination; and,

WHEREAS, the Tribe has notified the District that the Tribe's aboriginal territory includes the mouth of the Scott River and it has a long standing interest in the health and productivity of both the Scott and Shasta Rivers; and,

WHEREAS, the Tribe has expressed that these rivers are fundamental to the health of the Klamath Basin fisheries, supporting populations of Spring Chinook Salmon, Fall Chinook salmon, ESA-listed Coho salmon, Pacific Lamprey, Summer steelhead, and Winter steelhead, and each of these species are intrinsic parts of the Tribe's culture and identity; and,

WHEREAS, the Scott River is a navigable waterway and 303(d) listed for water temperature impairment and sediment impairment; and,

WHEREAS, the North Coast Regional Water Quality Control Board's September 2006 Action Plan for the Scott River Sediment and Temperature Total Maximum Daily Loads stated that excessive sediment loads and elevated temperatures had resulted in degraded water quality conditions that impaired designated beneficial uses of water for the Scott River; and,

WHEREAS, the Shasta River is a navigable waterway and 303(d) listed for water temperature impairment and dissolved oxygen impairment; and,

WHEREAS, the North Coast Regional Water Quality Control Board's June 28, 2006 Action Plan for the Shasta River Temperature and Dissolved Oxygen Total Maximum Daily Loads stated that elevated temperature and low dissolved oxygen had resulted in degraded water quality conditions that impaired designated beneficial uses of water for the Shasta River; and,

WHEREAS, the Tribe continues to develop technical and scientific data through its Department of Natural Resources, which the District agrees to consider, with the understanding that a fair and balanced approach is pivotal to the success of a collaboratively developed GSP for the Basins; and,

WHEREAS, the Parties intend to memorialize a Communications Protocol intended to strengthen meaningful communication and information sharing, with the goal of enhancing the quality of the GSP that will result from the District's implementation of SGMA.

I. AUTHORITY.

a. The Tribe, acting by and through the Karuk Tribal Council pursuant to the Karuk Constitution exercises its inherent sovereign authority to enter into this MOU.

b. The District is a special district, established in 1959 by the Siskiyou County Flood Control and Water Conservation District Act, (Cal Uncod. Water Deer, Act 1240 §§ 1-38), and is the GSA for the Shasta, Scott and Butte Valley groundwater basins. The District's powers include the ability to enter into agreements and memorandums of understanding with other parties.

II. PURPOSE.

The Purpose of this MOU is to formalize good faith Communication Protocols between the Tribe and the District to i) mutually exchange and disseminate information pertinent to the District's development of a GSP pursuant to SGMA, and ii) discuss and ensure full dialog around science and technical information in order to understand and attempt to dispel discrepancies.

III. IMPLEMENTING ACTIONS.

i. The Parties agree to meet in order to share disclosable information pertinent to the development of the GSP at mutually agreed upon dates, locations and times.

ii. Any information the Tribe considers confidential, which the Tribe desires to share with the District, shall be marked as "confidential" in bold red font at the top of the first page of the document, and shall be accompanied by a statement of the legal basis upon which the District may withhold the document from the public pursuant to the California Public Records Act, Government Code section 6250 *et seq.*

iii. The Parties agree that each Party will appoint a single representative to respond to inquiries on issues addressed in or affected by the MOU. The Tribe's representative may address public inquires, but is not required to.

iv. The Parties agree that each Party may request DWR facilitation services to ensure the Parties continue working together.

v. The Parties agree that at any time any Party may request an informal consultation meeting that will include two (2) Siskiyou County elected representatives and two (2) Karuk Tribal Council elected representatives and relevant staff for the purpose of attempting to resolve any issues arising from Technical Meetings or development of the GSP.

vi. The Parties agree that if there is a lack of resolution at the informal consultation meeting any Party may request and be given an official Government to Government consultation meeting that would include a majority of the Karuk Tribal Council and the District Board, and be held in accordance with California's Ralph M. Brown Act.

vii. In the event, after good faith communication, the Tribe considers an issue unresolved, the Tribe may document the issue by way of letter or memorandum and submit it to the District prior to the District's adoption of the GSP during the local comment period. The Tribe's letter or memorandum and the District's response shall be included in full in a Tribal Comments and Response appendix of the GSP.

IV. TERM.

a. This MOU shall become effective upon execution by each of the Parties.

b. The term of this MOU is from the effective date to January 31st, 2022, or, if earlier, to the date of the District's GSP submittal to DWR, unless terminated in accordance with the provisions of Section V.

V. TERMINATION.

Either Party may terminate this agreement upon thirty (30) days written notice to the other Party.

VI. LEGAL EFFECT.

a. This MOU imposes no legally binding obligations upon any Party hereto. Rather it sets out terms for cooperation and data sharing, with the goal of enhancing the quality of the GSP that will result from the District's implementation of SGMA.

b. The parties agree that the MOU is a public document.

VII. NOTIFICATIONS.

Any notification required under the MOU shall be in writing and shall be addressed as follows:

If to District:

Matt Parker
1312 Fairlane Road
Yreka, California 96097
mparker@co.siskiyou.ca.us

If to Tribe:

Joshua Saxon
64236 Second Avenue
PO Box 1016
Happy Camp, California 96039
jsaxon@karuk.us

VIII. AMENDMENT.

This MOU may be amended at any time during the term of this MOU upon the mutual consent of both parties. No addition to, or alteration of, the terms of this MOU shall be valid unless made in writing and signed by the parties hereto.

IX. ENTIRE AGREEMENT.

This MOU contains all of the terms and conditions agreed upon by the parties hereto and no other agreements, oral or otherwise, regarding the subject matter of this MOU shall be deemed to exist.

X. AUTHORITY TO EXECUTE.

Each person executing this MOU represents and warrants that he or she is duly authorized and has legal authority to execute and deliver this MOU.

KARUK TRIBE:

By: _____
Russell "Buster" Attebery
Karuk Tribe Chairman

Date: 3-12-2020

SISKIYOU COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

By: _____
Michael Kobseff, Board Chair
Board of Directors

Date: 3/17/2020

ATTEST:
LAURA BYNUM
Clerk, Board of Directors

By: _____
Deputy

APPENDIX 2B

Gmail

Amy Reeh <amy@yuimamwd.com>

RE: Correspondence with the SLRIWA

1 message

Moyle, Craig <craig.moyle@stantec.com> Fri, Dec 4, 2020 at 10:45 AM
To: Amy Reeh <amy@yuimamwd.com>

Good morning, Amy

Hope all is well with you, your family and colleagues. Wanted to provide a quick update on my conversations/correspondence associated with the GSA's FSS application. Would you have time today or early next week to discuss?

Kind regards,

Craig

From: Amy Reeh <amy@yuimamwd.com>
Sent: Friday, November 20, 2020 1:16 PM
To: Moyle, Craig <craig.moyle@stantec.com>
Subject: Re: Correspondence with the SLRIWA

My apologies; I have a bad habit of hitting send before the file has finished attaching. Here you go!

Kindest Regards,

Amy Reeh | Interim General Manager / Finance & Administrative Services Manager | Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

On Fri, Nov 20, 2020 at 1:03 PM Moyle, Craig <craig.moyle@stantec.com> wrote:

Hi Amy – Doesn't look like the attachments made it through.

Craig

From: Amy Reeh <amy@yuimamwd.com>
Sent: Friday, November 20, 2020 12:14 PM

To: Moyle, Craig <craig.moyle@stantec.com>
Subject: Re: Correspondence with the SLRIWA

APPENDIX 2B

Hi Craig,

Sorry for the delay in getting this to you; crazy morning. I've attached the correspondence I sent to Taryn because it has all of the pertinent documentation and may be helpful. Please let me know if I can provide you with any other information. Take care and have a nice weekend!

Kindest Regards,

Amy Reeh | Interim General Manager / Finance & Administrative Services Manager | Yuima Municipal Water District

PO Box 177 | Pauma Valley, CA 92061 | O: **760-742-3704** | **amy@yuimamwd.com**

"Kindness is the language the deaf can hear and the blind can see." - Mark Twain

On Thu, Nov 19, 2020 at 6:41 PM Moyle, Craig <craig.moyle@stantec.com> wrote:

> Hi Amy,
>
> Would it be possible to get a copy of the letters you sent to the tribe to invite their participation and their response?
>
> Thanks,
>
> Craig

SAN LUIS REY INDIAN WATER AUTHORITY

Post Office Box 428
Pauma Valley, CA 92061
Telephone: (760) 742-1903
Facsimile: (760) 742-1745
www.slriwa.org

August 14, 2020

Dear David,

The situation with respect to the application of SGMA to the Upper San Luis Valley Basin continues to deteriorate. The San Luis Rey Indian Water Authority understands that the Board of Directors of the Yuima MWD has approved and entered into (or is about to enter into) a contract with Geoscience Support Systems to prepare a GSP for the entire Upper SLR Basin. The scope of work for the approved contract does not include any consideration or analysis of the reserved water rights of the 5 Indian Bands. It is therefore inconsistent with the requirement of SGMA that "Indian Reserved Water Rights shall be respected in full."

The IWA believes that Yuima intends to use the money from two previously approved DWR grants to pay for most or all of the work to be performed by Geoscience under the proposed contract. The Indian Water Authority respectfully requests DWR to immediately notify Yuima that its proposed contract with Geoscience is inconsistent with SGMA and that State grant funds therefore may not be used to pay for any work to be performed under that contract.

The Indian Water Authority also respectfully requests that DWR and the State Board use the full extent of their authorities to take all appropriate measures to carry out the requirements of SGMA to the Upper Basin in accordance with the SGMA's deadlines. The IWA and the Bands are ready, willing and able to assist the State's efforts.

Please distribute this email to the appropriate officials of DWR and the State Board.

Thank you.

Sincerely,

Bo Mazzetti, President
San Luis Rey Indian Water Authority

Yuima
MUNICIPAL WATER DISTRICT
P.O. BOX 177, 34928 VALLEY CENTER ROAD
PAUMA VALLEY, CA 92061-0177
Tel: (760) 742-3704 • Fax: (760) 742-2069
e-mail: yuima@yuimamwd.com

October 9
August 2, 2020

TRANSMITTAL VIA E-MAIL

Taryn Ravazinni
Deputy Director
Statewide Groundwater Management
California Department of Water Resources (DWR)
P.O. Box 942836
Sacramento, CA 94236-001
Taryn.ravazinni@water.ca.gov

RE: Upper San Luis Rey Valley GSP Development – Response to DWR September 15, 2020 Letter

Dear Ms. Ravazinni,

Thank you for your September 15 letter following up on our telephone conversations on August 28 and September 10, 2020. As I indicated during our conversation, the Pauma Valley GSA, and Yuima as the lead agency, is eager to assist DWR, and other interested state agencies, in addressing any concerns that may arise during the process of developing a groundwater sustainability plan (GSP) in the Upper San Luis Rey Valley Sub-Basin ("Sub-Basin").

In an effort to do just that the GSA offers the following information in response to your questions posed in your letter.

1) *"Please describe the specific nature of and reasons for the impasse as reported in YMWD's Proposition 1 SGMP Grant Progress Report Numbers 3 through 5 to the Department over the last year?"*

During the GSP consultant selection and Scope of Work development process the participants of the 2019 Memorandum of Understanding were unable to agree on a contract scope of work for GSP preparation. As part of the 2019 MOU, the Parties to the MOU, including the San Luis Rey Indian Water Authority (USLRIWA), approved a relatively simple draft scope of work (attached hereto with 2019 MOU), that followed DWR regulations for GSP development. However, when it came to agreeing upon actual contract tasks with a GSP Consultant, the SLRIWA sought to add a new and controversial task that was not addressed, nor contemplated, in the 2019 MOU, or at any other prior time. This specific proposed directive (referred to by the MOU participants as proposed Task 2.3) would require the GSP consultant to evaluate, and de-facto adjudicate, the water rights of all groundwater users in the basin, interpret state law rights and analyze them vis-a-vis federal

reserved water rights (FRWR) asserted by USLRIWA members, and then use the Consultant's conclusions about the relative rights of various groundwater producers in the Sub-Basin to develop a water budget.

The representatives of the San Luis Rey Indian Water Authority desired to have the physical amount of land (number of acres) owned by each groundwater producer to be the determining water rights factor and included in the calculation methodology of the water budget. The representatives of the other participants felt strongly that it is not the job of the GSP consultant to adjudicate water rights—indeed SGMA would not appear to permit such an approach[1]—and that a water budget should be developed based upon the DWR GSP Regulations and upon how much water enters and leaves the Basin under different hydrologic conditions. Unfortunately, despite many months and numerous attempts by Yuima and other stakeholders to revise this section of the draft consultant contract to reach a compromise approach, USLRIWA continued to insist upon an adjudication/quantification of FRWR in the GSP, and the workgroup was unable to reach agreement on an approach acceptable to all parties.

That stated, Yuima, and the other members of the USLR GSA, continue to encourage robust participation by USLRIWA (and its Tribal members) in the development of a GSP for the USLR Sub-Basin in a manner in which Tribal members feel comfortable participating. To date, the USLRIWA has been unwilling to participate, but Yuima will continue to invite Tribal representatives, and solicit their participation at every stage of GSP development. Bottom line, whether Tribal representatives choose to participate in the GSP development process or not, any GSP developed for the Sub-Basin will fully comply with SGMA's mandate that "Indian Reserved Water Rights shall be respected in full."[2]

2) *"Does either the impasse or the amended GSA MOU uploaded to the Department's GSA formation webpage on July 17, 2020, affect preparation of a GSP?"*

Neither the impasse nor the amended GSA MOU will affect the preparation of a GSP since the members of the GSA after amendment of the 2017 MOU are the same agencies that were going to manage the Sub-Basin per SGMA before the impasse with the USLRIWA arose in 2019. Amending the 2017 MOU allowed the governing body of the GSA to move forward with the preparation of a GSP in order to meet the deadlines for GSP submission established in SGMA. It is important to note that the 2019 MOU was established only to form a committee to potentially develop the GSP and did not change the governance structure of the GSA created by the 2017 MOU, nor did it in any way negate the governing powers of the signatories to the 2017MOU. This was clearly stated in section 2(d) of the 2019 MOU of which I have attached a copy. Amendment of the 2017 MOU in July 2020

---

1 Water Code section 10720.5(b) states that nothing in a GSP "alters surface water rights or groundwater rights under common law or any provisions of law that determines or grants surface water rights." Determining and quantifying FRWR in a GSP would appear inconsistent with Section 10720.5(b). FRWR are not awarded by the State (or a federal agency).

2 The Scope of Work for the GSP specifically mandates the GSP be developed in a manner that fully respects FRWR. From page 7 of the Request for Qualifications (incorporated by reference into the Geoscience GSP Contract): *" Portions of the La Jolla, Pala, Pauma, and Rincon Tribes are located within the Upper Subbasin. The San Pasqual Tribe is also located in the vicinity of the Upper Subbasin. The GSP and GSA will need to consider and respect federally reserved water rights to groundwater as part of the management of the Basin. A confidentiality agreement between the consultant and tribes (as well as other pumpers) may be required in order to ensure the consultant can obtain pumping, well elevation, and other data to complete the GSP."*

was needed not because of the impasse with the Tribes, but because of the need to clarify Yuima's role as lead agency for GSP development given the County of San Diego's withdrawal from the 2017 MOU (and the GSP development process) in 2019.

Since the signing of the amended MOU in July 2020,the Executive Committee of the GSA has selected a GSP consultant, Geoscience Support Services, Inc., who has been retained by Yuima and who has already begun work on development of a GSP—including a robust stakeholder outreach and participation plan.

3) *"How will the current GSP preparation process under the recently revised MOU integrate or consider Tribal interests?"*

The Pauma Valley GSA believes that participation of *all* basin stakeholders, including Tribal stakeholders, is of great importance throughout the development of the GSP for the Sub-Basin.

The Pauma Valley GSA demonstrated their desire to include Tribal interests by repeatedly requesting the participation of the San Luis Rey Indian Water Authority (IWA) in the amended MOU Executive Team. The IWA declined to participate, stating that the IWA "does not recognize the current legitimacy of the Groundwater Sustainability Agency created under the 2017 Memorandum of Understanding". As previously stated, the GSA formed under the 2017 MOU has always been the GSA for the Sub-Basin. The GSA continues to engage Tribal interests by sending invitations and meeting notices to the President of the IWA, Rincon Tribal Chairman Bo Mazzetti, via email and regular mail service. These attempts have thus far not resulted in Tribal participation.

Not only will the GSA continue to encourage the participation of the Tribes by sending invitations and meeting notices for each GSA meeting, and giving them a seat on the GSP development Executive Team should they desire to participate in this capacity, we will also solicit their participation via the GSP stakeholder outreach process. Outreach for participation will not only be sent to the IWA but to each Tribe individually.

As indicated in your letter, the GSA recognizes the need for Tribal participation throughout this process and is committed to making every effort to build a cooperative working relationship with the Tribal interests in the Sub-Basin. Their knowledge and experience will be a valuable asset to the process as we move forward. As suggested by your Department, Yuima has reached out to Simar Dhanota in DWR's facilitation support services division to assist in this endeavor. It is our fervent hope that she can assist the GSA with facilitation of a meeting with, and future participation in GSP development of, the IWA. Until this comes to pass, we will continue our outreach efforts in the hopes the Tribes will soon choose to join us in developing a fair, equitable, and legally compliant GSP for the Upper San Luis Rey Groundwater Sub-Basin.

I sincerely appreciate the Department's commitment in assisting our agency through this difficult process. I also appreciate your time and effort in helping the Pauma Valley GSA and the IWA find common ground on which to build a strong, cohesive relationship for the future.

Warmest Regards,

Amy Reed
Interim General Manager
Yuima Municipal Water District, GSA Lead Agency

cc: Bo Mazzetti, President, San Luis Rey Indian Water Authority

enclosures: Copy of 2019 Memorandum of Understanding (with approved scope of work)
Copy of outreach letters to IWA
Copy of letter received from IWA

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

September 15, 2020

TRANSMITTAL VIA E-MAIL

Ms. Amy Reeh
Interim General Manager
Yuima Municipal Water District
P.O. Box 177
Pauma Valley, CA 92061-0177
amy@yuimamwd.com

RE: Upper San Luis Rey Valley GSP Development

Dear Ms. Reeh,

This letter follows our phone conversations on August 28 and September 10, 2020, regarding groundwater sustainability plan (GSP) preparation in the Upper San Luis Rey Valley groundwater subbasin (DWR Bulletin 118 Basin No. 9-007.01). I appreciated receiving an update on Pauma Valley GSA's efforts to develop a GSP inclusive of all beneficial uses and users of the subbasin.

At the outset of GSP preparation for the basin, the Department was encouraged by the agreement struck between local agencies and local Tribes in a 2019 memorandum of understanding (MOU) that integrated Tribal stakeholders into the GSP preparation process. As we discussed, the Department is aware of the self-described "impasse" among members of the executive committee that resulted in a disruption to the previously established agreement and process. This "impasse" has led to an amended MOU recently uploaded to the Department's SGMA Portal. The Department has monitored the GSP development effort in the Upper San Luis Rey Valley Subbasin due to the unique nature of the basin and its stakeholders and, of course, in accordance with the guidelines for the Proposition 1 GSP Planning grant awarded to Yuima Municipal Water District (YMWD).

The Department recognizes that local agencies and communities throughout the state are dealing with many stressors and appreciate that the Pauma Valley GSA is working to stay on track with SGMA's statutory deadlines. Per our conversations, the Department is interested in better understanding and documenting the current status of the GSP development efforts pursuant to Pauma Valley GSA's amended MOU. Accordingly, the Department is seeking a written response to the following questions and would appreciate answers to be provided by October 9, 2020.

1) Please describe the specific nature of and reasons for the impasse as reported in YMWD's Proposition 1 SGWP Grant Progress Report Numbers 3 through 5 to the Department over the last year?

2) Does either the impasse or the amended GSA MOU uploaded to the Department's GSA formation webpage on July 17, 2020, affect preparation of a GSP? Please explain.
3) How will the current GSP preparation process under the recently revised MOU integrate or consider Tribal interests?

Our conversations also touched on Pauma Valley GSA's previous use of the state's facilitation support services specifically to support improved coordination between the GSA and Tribal interests. The Department continues to believe that the best chance for successful and robust local SGMA implementation is for both the Tribes and GSA to work transparently and cooperatively, along with other basin stakeholders. You stated clearly that Pauma Valley GSA recognizes the need for cooperative and inclusive engagement between the GSA and tribal governments to achieve sustainability of groundwater resources in the subbasin. Additionally, I noted your interest in resuming use of the Department's facilitation support services. In my email to you on August 28, 2020, per your request, I provided the contact information of our Facilitation Support Services Coordinator, Simar Dhanota, along with other key Department contacts to further facilitate Pauma Valley GSA's access to the range of local assistance offerings and support tools designed to help GSAs engage in an inclusive and transparent GSP development process.

The Department is committed to assisting local agencies with navigating the challenges of SGMA implementation. As the point of contact for the Pauma Valley GSA, should you have any questions or concerns with fulfilling the Department's request for information or with SGMA more generally, please do not hesitate to reach out to me or any of the contacts previously identified for you. Thank you again for our recent conversations and I look forward to the follow up.

Sincerely,

Taryn Ravazzini
Deputy Director
Statewide Groundwater Management

cc:

Mr. Bo Mazzetti, President and Chair, San Luis Rey Indian Water Authority

CALIFORNIA DEPARTMENT
OF WATER RESOURCES
1416 NINTH STREET, P.O BOX 942836
Sacramento, CA 94236-0001

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
1001 I Street | Sacramento, CA 95814

September 15, 2020

Mr. Bo Mazzetti, President and Chair
San Luis Rey Indian Water Authority
P.O. Box 428
Pauma Valley, CA 92061

TRANSMITTAL VIA E-MAIL

RE: Tribal Consultation on Upper San Luis Rey Valley SGMA Implementation

Dear President and Chair Mazzetti,

We hope this letter finds you, your respective Tribal members, and your Tribal offices safe and doing well amidst the ongoing challenges we are all experiencing. We provide this letter on behalf of the California Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) in response to the January 28, 2020 government-to-government consultation conducted in Sacramento regarding the ongoing dynamics around implementation of the Sustainable Groundwater Management Act (SGMA) in the Upper San Luis Rey Valley subbasin (basin).

Our respective agencies appreciate and acknowledge the opportunity to consult with the Tribal Governments of the La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians (Tribes), which compose the San Luis Rey Indian Water Authority (SLRIWA). DWR and the SWRCB acknowledge the "*Resolution of the Board of Directors of the San Luis Rey Indian Water Authority Regarding Implementation of the Groundwater Sustainability Plan for the Upper San Luis Rey Valley Groundwater Basin*," dated January 16, 2020 (Resolution). Our agencies also acknowledge the SLRIWA's commitment and desire to support and participate in the development and implementation of the groundwater sustainability plan (GSP) for the basin as demonstrated by a 2019 memorandum of understanding (2019 MOU), between the Tribes and local agencies, arrived at, in part, through a series of facilitation sessions supported by the State and attended by staff from DWR and the SWRCB.

While the specific details remain somewhat unclear, we understand members of the basin executive team reached an impasse over SGMA requirements regarding whether or how to address Tribal water rights in the scope of work to develop the basin GSP. This impasse resulted in the apparent conclusion by at least some of the parties to the 2019 MOU that the 2019 MOU is defunct and that further progress toward GSP development under that agreement is unlikely. We have also recently become aware that certain local agencies in the basin have amended the 2017 MOU, establishing the Pauma Valley Groundwater Sustainability Agency. The amendment was uploaded to

DWR's groundwater sustainability agency (GSA) formation webpage on July 17, 2020 and revises the Pauma Valley GSA's composition and decision-making structure (e.g., without the County of San Diego as a member). DWR and the SWRCB understand that the local agency signatories to the amended MOU may now be proceeding with GSP preparation.

Concurrent with the sending of this letter, DWR has contacted the Pauma Valley GSA to gain its perspective regarding these events and how they have affected preparation of the GSP and integration of Tribal interests in that process. DWR has also asked whether the Pauma Valley GSA has interest in renewed third-party facilitation services with the goal of restoring constructive engagement between the Tribes and the Pauma Valley GSA during GSP preparation.

At our government-to-government consultation, the SLRIWA requested a summary of the SGMA compliance documentation for the basin as published on DWR's SGMA Portal and webpages since SGMA was enacted. Attachment 1 provides a timeline of the significant SGMA compliance actions taken and changes in legislation related to the basin including basin boundary modification, GSA formation, and initial notification of intent to develop a GSP. DWR and the SWRCB understand that the SLRIWA may have concerns regarding the GSA for the basin and consequently that the Resolution suggested the basin be categorized as probationary under SGMA. We believe the information in Attachment 1 will be helpful in providing the current documentation submitted to DWR regarding that issue.

The SLRIWA's August 14, 2020 letter asserts that the currently proposed consultant's scope of work for the GSP in the basin is inconsistent with the requirements of SGMA, and it requests that DWR and the SWRCB "take all appropriate measures to carry out the requirements of SGMA to the Upper Basin in accordance with the SGMA's deadlines."

The SWRCB is the agency with authority and jurisdiction under SGMA to assess, after June 30, 2017, whether a local agency or collection of local agencies have formed one or more GSAs to develop one or more GSPs for the entire basin (Water Code §10735.2, subd. (a)(1)). Based on available information regarding the Pauma Valley GSA, it is not clear to the SWRCB whether State intervention could be triggered in this case.

DWR's jurisdictional role under SGMA is to review the final, adopted GSP for the basin in compliance with the GSP Regulations and legal adequacy under SGMA, and to issue an assessment (Water Code §10733.4). The basin GSP has not yet been submitted to DWR and is not due until January 31, 2022. After January 31, 2022, the SWRCB may declare the basin probationary if there is no adopted GSP (or GSPs) covering the entire basin (Water Code §10735.2, subd. (a)(4)). If an adopted GSP (or GSPs) is submitted for the basin, DWR will have up to two years to review the final,

adopted plan(s) and issue its assessment (*Id.*). At that time, if DWR, in consultation with the SWRCB, determines that the submitted GSP or (GSPs) is inadequate or not being implemented in a manner that will achieve the sustainability goal and the SWRCB determines that the basin is also in a condition of long-term overdraft, then the SWRCB may, after notice and hearing, declare the basin probationary under SGMA (Water Code §10735.2, subd. (a)(5)).

DWR and the SWRCB recognize this response does not resolve the impasse described in the Resolution or the concerns raised in the SLRIWA's August 14 letter. However, we continue to believe the best chance for successful and robust local SGMA implementation in the basin is for the Tribes and GSA to work transparently and cooperatively, along with other basin stakeholders, during GSP preparation and implementation. Both DWR and the SWRCB remain supportive of that goal. Accordingly, our agencies will continue to monitor circumstances in the basin, gather information on GSP preparation, and seek ways to resolve conflict. As part of that effort, we would like to better understand your point of view and the details of the current situation, and we, therefore, ask that you provide a written response to the following questions. We recognize that many governments, including tribal nations, are under multiple stresses right now but, in the interest of trying to help address your concerns expeditiously, we would appreciate if answers could be provided by October 9, 2020. If that is not possible, please let us know.

1) Could you please provide a detailed explanation for the assertion in the SLRIWA's August 14 letter that the scope of work for the GSP must include a "consideration or analysis of the reserved water rights of the 5 Indian Bands"?

2) Besides the issue addressed in Question 1, are there other options the SLRIWA would recommend or consider as ways to successfully integrate Tribal interests into the current GSP preparation process?

Presently, DWR and the SWRCB believe that reinitiating the third-party facilitation support services that assisted in establishing the previous framework for Tribal participation in the basin's GSP preparation process may be helpful and warranted. If you have interest in renewing facilitation services, please contact Simar Dhanota with DWR's Sustainable Groundwater Management Office at (916) 651-0889 or Simarjit.Dhanota@water.ca.gov. If you believe that convening a meeting between the Tribes and the GSA with the participation of DWR and the SWRCB could help support constructive collaboration, please let us know.

In closing, should you have any additional information or concerns you believe we should consider, please feel free to contact either of us directly using our respective contact information below.

Sincerely,

Taryn Ravazzini, Deputy Director
Statewide Groundwater Management
California Department of Water Resources
(916) 653-4781
Taryn.Ravazzini@water.ca.gov

James Nachbaur, Director
Research, Planning, and Performance
State Water Resources Control Board
(916) 322-6509
James.Nachbaur@waterboards.ca.gov

Attachment 1: Summary of San Luis Rey Valley Basin SGMA Documentation

Attachment 1

Summary of San Luis Rey Valley Basin SGMA Documentation

Purpose:
This document is intended to summarize the voluntary and required information provided to the Department of Water Resources (DWR) that supports implementation of the Sustainable Groundwater Management Act (SGMA) in the San Luis Rey Valley Groundwater Basin – primarily related to the newly-formed Upper San Luis Rey Valley Subbasin. This document briefly addresses information pertaining to basin boundary modifications, the formation of a Groundwater Sustainability Agency (GSA), and initial notification to develop a Groundwater Sustainability Plan (GSP).

Assumptions:
This summary assumes the conditions in the basin that existed on and after January 1, 2015, when SGMA was first enacted. As stated in the SGMA legislation, the requirement to form a GSA and develop a GSP only applies to the boundaries of high- and medium-priority groundwater basins identified and described in DWR's Bulletin 118, 2003, or as modified. A GSA consists of one or more local agencies overlying a basin that is formed in accordance with provisions listed in Chapter 4 of SGMA – a GSA has no other definition prior to the implementation of SGMA. Descriptions of basin boundary modifications and GSA formation in the San Luis Rey Valley Basin are described below. The supporting information in this summary is available on DWR's SGMA Portal (https://sgma.water.ca.gov/portal/) or as provided in California Water Code, Division 6, Part 2.74.
DWR's SGMA Portal makes available to the public the information provided to DWR by local agencies that supports SGMA implementation and addresses a local agency's or GSA's compliance with legislative and regulatory requirements. The Pauma Valley GSA currently covers a portion of the Upper San Luis Rey Valley Subbasin.

Chronology of DWR related SGMA actions:

- October 1, 2003 – Basin Boundary (Bulletin 118, 2003): DWR's foundational groundwater document, defines the boundaries of groundwater basins initially used in SGMA. The San Luis Rey Valley Basin was considered a medium-priority basin in 2015.
- March 29, 2016 – Basin Boundary (2016 Basin Boundary Modification Period): The City of Oceanside requested a modification of the San Luis Rey Valley Basin by dividing the basin along the boundaries defined by the State Water Resources Control Board (SWRCB) under its subterranean stream findings. The boundary modification request was denied due to limited scientific technical studies supporting the requested modification. A summary of the 2016 boundary modification request is here: https://sgma.water.ca.gov/basinmod/modrequest/preview/57
- June 27, 2017 – GSA: The Pauma Valley GSA formed under the authorities and assumptions described in a MOU, dated June 27, 2017, as provided in Section B3 of the SGMA Portal link provided below. The information specific to the Pauma Valley GSA and the Upper San Luis Rey Valley Subbasin is located here: https://sgma.water.ca.gov/portal/gsa/print/359
    - The MOU covered a portion of the then-defined San Luis Rey Valley Basin and was initially entered into by the following four local agencies: Pauma Valley Community Services District; Upper San Luis Rey Resource Conservation District; Yuima Municipal Water District; and the County of San Diego.

- November 19, 2018 – GSP: An Initial Notification to prepare a GSP in the San Luis Rey Valley Basin was submitted to DWR on November 19, 2018 and has not been updated since. The GSP Initial Notification is available here: https://sgma.water.ca.gov/portal/gsp/init/preview/154
- January 1, 2019 – Basin Boundary: The San Luis Rey Valley Basin boundary was modified by legislation (Assembly Bill 1944, 2018) and incorporated into California Water Code (§10722.5) on January 1, 2019. The resulting condition subdivided the basin into the Upper San Luis Rey Valley Subbasin and the Lower San Luis Rey Valley Subbasin and provided clarification on the definition of 'Groundwater' in this basin.
- January 31, 2019 – GSA: The County of San Diego withdrew from the Pauma Valley GSA on January 31, 2019, as indicated in a letter dated January 23, 2019. The County's letter is provided in Section E3 of the SGMA Portal link shown above. The County's letter states, "As stated in Section X of the MOU, the County's withdrawal does not affect the status of the MOU for the remaining members…"
    - The Pauma Valley GSA is the only GSA in the Upper San Luis Rey Valley Subbasin and the point of contact is Amy Reeh, Assistant General Manager of the Yuima Municipal Water District.
    - 2019 - It is understood that a separate MOU was agreed-upon by local agencies and non-local agencies in 2019 that addresses GSP development in the Upper San Luis Rey Valley Subbasin and outlines GSP management coordination among the beneficial uses and users of groundwater in the basin; the 2019 MOU specifies tribal government inclusion. The 2019 MOU has not been included as part of the record for GSA formation authority purposes.
- January 1, 2020 – Basin Boundary: The San Luis Rey Valley Basin boundary modification was clarified by legislation (Senate Bill 779, 2019) and incorporated into California Water Code (§10722.5) on January 1, 2020. The change included a more specific boundary definition than was defined in AB 1944, described above.
- May 1, 2020 – Basin Boundary / Basin Prioritization: The Lower San Luis Rey Valley Subbasin was reprioritized by DWR as a very-low priority basin and is generally managed under SWRCB subterranean stream determinations. The Upper San Luis Rey Valley Subbasin is considered a medium-priority basin and must be managed under a GSP by January 31, 2022. The GSP must be developed and implemented by a GSA.
- July 17,2020 – GSA: The Pauma Valley GSA information was updated with a revised MOU which modified the member agencies to include Upper San Luis Rey Resource Conservation District, Pauma Valley Community Service District, and the Yuima Municipal Water District, among other amendments as provided in Section B4 of the SGMA Portal link provided below. The information specific to the Pauma Valley GSA and the Upper San Luis Rey Valley Subbasin is located here: https://sgma.water.ca.gov/portal/gsa/print/359

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Norma M. Contreras, Chairwoman, La Jolla Band of Luisefio Indians, Email:norma.contreras@lajolla-nsn.gov

APPENDIX 3A

Well Logs used for Cross-Section Development

ORIGINAL
File with DWR

Page ___ of ___

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 456802

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. [redacted]
Date Work Began Jan 18,1994 , Ended Feb.21 1994
Local Permit Agency Dept. of Health Services
Permit No. [redacted] Permit Date Jan. 12 1994

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER Unkn (Ft) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
105	140	boulders,sand,clay
140	156	salt & pepper granite
156	170	fault in sand,river gravel 100gpm
170	190	granite
190	200	fracture 50gpm
200	240	graanite

TOTAL DEPTH OF BORING ~~240~~ (Feet) 135
TOTAL DEPTH OF COMPLETED WELL 240 (Feet)

WELL OWNER

[redacted]

WELL LOCATION

[redacted]

Township 9S Range 1W Section 31
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

[redacted]

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
X Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
X Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD ROTARY FLUID WATER

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 80 (Ft.) & DATE MEASURED 2/21/94
ESTIMATED YIELD* 150 (GPM) & TEST TYPE air lift
TEST LENGTH 4 (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
		10					STEEL	6	188	1/32

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
	EXISTING				

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

DWR 188 REV. 7-90 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instructions Pamphlet
No. 1085029

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Page 1 of 1
Owner's Well No. [redacted]
Date Work Began 6/2/05 , Ended 6/17/05
Local Permit Agency DEH
Permit No. [redacted] Permit Date June 1, 2005

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID gel & air

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	3	Silty sand, fine grained brown color
3	10	Sandy fine to coarse
10	41	Sandy fine to coarse with boulders to 24"
41	61	Sandy, fine to coarse with small 12' dia boulders
61	91	sand and boulders - very rough drilling
91	126	Hard, partly cemented sand and rocks
126	150	semi weathered rock - granite
150	172	weathered rock with quartz seams
172	177	Major fracture zone - water approx 400 gpm
177	360	Granite rock, hard, firm

TOTAL DEPTH OF BORING 360 (Feet)
TOTAL DEPTH OF COMPLETED WELL 360 (Feet)

WELL OWNER

[redacted]

WELL LOCATION

[redacted]

Township 9S Range 2W Section 25

[redacted]

LOCATION SKETCH

NORTH

[redacted]

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
X Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 40 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 24 (Ft.) & DATE MEASURED 6/22/05
ESTIMATED YIELD * 400+ (GPM) & TEST TYPE airlift
TEST LENGTH 4 (Hrs.) TOTAL DRAWDOWN 100 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	22	24	X				Steel	17.5	.250	
0	70	18	X				Steel	10	.250	
70	130	18		X			304SS	10	.250	.080
130	150	18	X				Steel	10	.250	
0	152	8	X				Steel	8	.250	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	X			
0	150				5/16x7

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site MAPS

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

DWR 188 REV. 05-03

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL

File with DWR MAY 31 1977.

Notice of Intent No.______

Local Permit No. or Date______

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

09S02W26L001S

Do not fill in

No. 01319

State Well No. 9S/2W26L1S

Other Well No.______

(
A
C

(2) LOCATION OF WELL (See instructions):

[redacted]

WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☐
Irrigation ☒
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:

Rotary ☐ Reverse ☐
Cable ☒ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 1/8 Pea
Diameter of bore 24"
Packed from 0 to 180 ft.

(7) CASING INSTALLED:

Steel ☒ Plastic ☐ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	50	26	.272	75	115	No. 75 Slot (johnson stainless steel screen)
0	50	24	.250	115	175	3/32" (Roscoe Moss Louver)
0	180	12	.250			

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 50 ft.
Were strata sealed against pollution? Yes ☐ No ☒ Interval____ ft.
Method of sealing Cemented and double cased

(10) WATER LEVELS:

Depth of first water, if known 70 ft.
Standing level after well completion 65 ft.

(11) WELL TESTS:

Was well test made? Yes ☒ No ☐ If yes, by whom? Same
Type of test Pump ☒ Bailer ☐ Air lift ☐
Depth to water at start of test 65 ft. At end of test 65 ft
Discharge 425 gal/min after 13 hours Water temperature Ukn
Chemical analysis made? Yes ☐ No ☒ If yes, by whom?____
Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 325 ft. Depth of completed well 180 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	115	Alluvial fill (loose) consisting of fine to coarse sand and boulders Boulders were hard, round, grenetic ranging in size up to 48 inches.
115	210	Alluvial fill (cemented - hard packed) This formation consists of claey sand and boulders tightly cemented. Boulders size up to 60"
210	240	Rock, grenetic, partly decomposed
240	325	Hard rock, grenetic with some small fracturing, overall color, grey

Work started 11/13 1976 Completed 4/13 1977

WELL DRILLER'S STATEMENT:

[redacted]

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0368684

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Page 1 of 2

Owner's Well Number [redacted]

Date Work Began 07/02/2018 Date Work Ended 7/12/2018

Local Permit Agency San Diego County

Permit Number [redacted] Permit Date 6/6/18

Geologic Log

Orientation ○ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Mud Drilling Drilling Fluid

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	20	Boulders and Sand
20	165	Gravel and Boulders
165	277	Gravel and Clay Water: 75 GPM Total

Total Depth of Boring 277 Feet

Total Depth of Completed Well 277 Feet

Well Owner (confidential pursuant to CA Water Code 13752)

[redacted]

Well Location

[redacted]

Township 9S Range 2W Section 26

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. **Please be accurate and complete**

Activity

- ◉ New Well
- ○ Modification/Repair
  - ○ Deepen
  - ○ Other
- ○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- ◉ Water Supply
  - ☐ Domestic ☐ Public
  - ☑ Irrigation ☐ Industrial
- ○ Cathodic Protection
- ○ Dewatering
- ○ Heat Exchange
- ○ Injection
- ○ Monitoring
- ○ Remediation
- ○ Sparging
- ○ Test Well
- ○ Vapor Extraction
- ○ Other

Water Level and Yield of Completed Well

Depth to first water 165 (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * 75 (GPM) Test Type Air Lift

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	47	17	Blank	Low Carbon Steel	.250	12.75		
0	117	12	Blank	PVC Sch. 40	SDR21	6.9		
117	277	12	Screen	PVC Sch. 40	SDR21	6.9		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	47	Cement	
0	277	Filter Pack	Gravel #6

Attachments

- ☐ Geologic Log
- ☐ Well Construction Diagram
- ☐ Geophysical Log(s)
- ☐ Soil/Water Chemical Analyses
- ☑ Other Location Sketch

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 2/2017

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OCT 19 2018

ORIGINAL
File with DWR [redacted]

WATER WELL DRILLERS REPORT SEP 4 1970

(Sections 7079, 7080, 7081, 7082, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

9S, 2W-27

Do Not Fill In

No 36813

State Well No. 09S/2W-27

Other Well No. _____

(1) OWNER:

[redacted]

(2) LOCATION OF WELL:

[redacted]

Township, Range, and Section 7S. R2W Sec 27

[redacted]

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☒ Industrial ☒ Municipal ☐

Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

~~Rotary~~ ☐

Cable ☒

Other ☐

(6) CASING INSTALLED:

STEEL: OTHER:

SINGLE ☒ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall
0ft	126	8"	12

If gravel packed

Diameter of Bore	From ft.	To ft.

Size of shoe or well ring:

Size of gravel:

Describe joint

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 125 ft.

Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing

(9) WATER LEVELS:

Depth at which water was first found, if known 80 ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 125 ft. Depth of completed well 126 ft.

Formation: *Describe by color, character, size of material, and structure*

ft. to	Formation
0ft to 22ft	Rocks
22ft to 42ft	Rock DG
42ft to 50ft	Rock DG
50ft to 65ft	Rock
66ft to 95ft	Silt Sand, CLAY
95ft to 120	Sand DG CLAY

Work started 7-20 19 70. Completed 730 19 70

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

[redacted]

SKETCH LOCATION OF WELL ON REVERSE SIDE

DWR 188 (REV. 9-65)

56391-250 10-65 50M TRIP ① △ OSP

09S02W29R001S

ORIGINAL
File with DWR

WATER WELL DRILLERS REPORT

(Sections 7079, 7080, 7081, 7082, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Do Not Fill In

No 37210

State Well No. 09S/02W-29R01 S

Other Well No.

9

(

N

A

(2) LOCATION OF WELL:

[redacted]

Township, Range, and Section T9S.R2W. SEC 29

[redacted]

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☒ Industrial ☐ Municipal ☐

Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐

Cable ☒

Other ☐

(6) CASING INSTALLED:

STEEL: OTHER:

SINGLE ☒ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall	If gravel packed: Diameter of Bore	From ft.	To ft.
0	59	8"	1/4"	24"	0	59
0	59	12"	1/4"			
0	54	2"	Std.			

Size of shoe or well ring: None

Size of gravel: 1/4"

Describe joint Welded 10 ft of 24" casing Gravel conductor at top

(7) PERFORATIONS OR SCREEN: left in hole.

Type of perforation or name of screen Machine Cut & #125 Screen

	From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
8"	50	59	4	4	1/8"X 2½"
12"	10	46	6	4	1/8"X 2½"
2"	52	54	3	2	1/8"X 2"
12"	Johnson Irrigator # 125 Shot 50				to 55 ft.

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 10 ft.

Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing neat cement grout

(9) WATER LEVELS:

Depth at which water was first found, if known 6 ft.

Standing level before perforating, if known 6 ft.

Standing level after perforating and developing 6 ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 59 ft. Depth of completed well ft.

Formation: *Describe by color, character, size of material, and structure*

0 ft. to 43 ft.
Grey Sand Gravel And Cobbles

43 ft 50 ft
Grey to black sand and toolie mud.

~~50 ft~~ ~~55 ft.~~
Grey, Clean Course sand, Gravel and large cobbles.

55 ft. 59 ft.
Cemented Sand ,Gravel And Bobbles ,

12" Casing is for irrigation water,

8" Casing is for Domestic water

2" is sounding tube, and to treat water for well maintainance.

24" casing provides Seal and is closed at top and has a gravel tube .

8 " & 12" casing has a cement plug in bottom.

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

Work started 12/17 19 66 , Completed 1/9 19 67

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[redacted]

SKETCH LOCATION OF WELL ON REVERSE SIDE

DWR 188 (REV. 9-65)

56391-950 10-65 50M TRIP ① △ OSP

ORIGINAL
File with DWR

Page ___ of ___ KEY [illegible]

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 506145

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. ___
Date Work Began 4-13-98, Ended 4-18-98
Local Permit Agency San Diego Co.
Permit No. [redacted] Permit Date 4-13-98

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	15	Broken up Granite
15	85	D.G. Boulders & some Clay zones
85	137	Soft Brown D.G.
137	166	B&W D.G. Med.
166	168	fracture 20 GPM
168	220	B&W Granite Hard
220	235	Fractures Loose Rock 30 GPM Total
235	290	B&W Granite Hard
290	295	Pink & Tan Color Granite
295	445	B&W Granite Hard
445	455	Pink & Tan Color Granite Fracture 37-40 GPM tot
455	540	B&W Granite Hard
540	545	Fracture 45 GPM total
545	667	B&W Granite Hard
667	680	Fracture 55-60 GPM total
680	750	B&W Granite Hard.

TOTAL DEPTH OF BORING 750 (Feet)
TOTAL DEPTH OF COMPLETED WELL 750 (Feet)

WELL OWNER

N
M
CI

WELL LOCATION

[redacted]

Township 10S Range 1W Section 3
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH
Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

[redacted]

SOUTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
✓ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
✓ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Air Rotary FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 50 (Ft.) & DATE MEASURED 4-18-98
ESTIMATED YIELD* 55 (GPM) & TEST TYPE Air Lift
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	153	12	✓				Steel	8	.188	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	25		✓		

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

DWR 188 REV. 7-90 IF ADDITIONAL [illegible]

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

Page ___ of ___
Owner's Well No. [redacted]
No. 0943674
Date Work Began 5/15/10, Ended 5/30/10
Local Permit Agency San Diego
Permit No. [redacted] Permit Date 5/11/10

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Air Rotary FLUID Mud

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	25	Topsoil & Sand
25	30	Sand & Boulders
30	50	Sand, Boulders & Clay
50	125	D.G. & Clay
125	250	Weathered Granite & Clay
250	380	Weathered Granite
380	385	Clay Zone
385	470	Weathered Granite
470	490	B&W Granite
490	495	Fractured B&W Granite
495	510	B&W Granite
510	515	Fractured B&W Granite
515	540	B&W Granite
540	555	Large Fracture B&W Granite
555	580	B&W Granite
580	585	Fractured B&W Granite Water!
585	715	B&W Granite
715	720	Fractured B&W Granite
720	775	B&W Granite
775	780	Fractured B&W Granite
780	1175	B&W Granite

TOTAL DEPTH OF BORING 1175' (Feet)
TOTAL DEPTH OF COMPLETED WELL 1175 (Feet)

[redacted]
Township 10S Range 1W Section 5
[redacted]
NORTH
[redacted]
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ✓ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 560 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 202.5 (Ft.) & DATE MEASURED 7-1-10
ESTIMATED YIELD * 150 (GPM) & TEST TYPE Air Lift
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	490	16	✓				Steel	10	.250	

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	490	✓			

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
[redacted]

DWR 188 REV. 05-03
IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM
08/29/11

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR 10S01W05C

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0249406

Page 1 of 2

Owner's Well Number [redacted]

Date Work Began 10/07/2014 Date Work Ended 11/5/2014

Local Permit Agency County of San Diego

Permit Number [redacted] Permit Date 2/25/14

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Mud Drilling Drilling Fluid

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	15	Red Clay
15	120	Sand and Brown D.G.
120	150	B&W Granite
150	155	Fractured Clay and B&W Granite
155	180	B&W Granite Clay
180	195	Clay (like adobe)
195	220	Clay and Rose & White Granite
220	360	Clay and B&W Granite
360	410	B&W Granite with a Little Clay
410	500	B&W Granite
500	510	Small Fracture B&W Granite Mostly White Granite
510	610	B&W Granite
610	620	Small Fracture B&W Granite Mostly White Granite
620	805	B&W Granite
805	810	Small Fracture B&W Granite
810	850	B&W Granite
850	860	Small Fracture B&W Granite
860	910	B&W Granite

Total Depth of Boring 910 Feet

Total Depth of Completed Well 910 Feet

Well Owner

[redacted]

Well Location

[redacted]

Township 10S Range 1W Section 5~~1~~

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West See Attached East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. **Please be accurate and complete.**

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☑ Public
☐ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
◉ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level 180 (Feet) Date Measured 11/11/2014

Estimated Yield * 60 (GPM) Test Type Air Lift

Test Length 3.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	117	24	Blank	Low Carbon Steel	.250	16		
0	197	15	Blank	PVC Sch. 80	SDR17	9		
197	397	15	Screen	304 Stainless Steel	.250	8	Wire Wrap	0.050
397	417	15	Blank	304 Stainless Steel	.250	8		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	117	Cement	
0	417	Filter Pack	#6 Well Rock

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other Location Sketch

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

JAN - 7 2015

ORIGINAL
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e-log

Extension Date

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 1085032

DWR USE ONLY — DO NOT FILL IN
1 0S 0 1W 0 5 D 0 0 2 S
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Page 1 of 1
Owner's Well No. [redacted]
Date Work Began 6/27/05, Ended 7/27/05
Local Permit Agency DEH
Permit No. [redacted] Permit Date 6/23/05

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID Gel

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0 8	Alluvial fill as follows: silty sand - brown color
8 11	Boulder
11 50	Sand, fine to coarse with some small aggregates - brown color
50 82	Sand, fine to coarse, partly cemented
82 92	Boulders, Hard
92 102	Sand, partly cemented
102 120	sand, boulders, partly cemented
120 132	Claey sand, hard, firm
132 134	Boulder
134 145	Claey sand, hard, firm
145 170	Cemented sand, small rocks
170 200	Weathered bed rock
200 228	Granitic bed rock, hard grey color black & white mineral

TOTAL DEPTH OF BORING 228 (Feet)
TOTAL DEPTH OF COMPLETED WELL 180 (Feet)

WELL LOCATION
[redacted]
Township 10S Range 1W Section 6 05

LOCATION SKETCH
NORTH
[redacted]
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic X Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 95 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 95 (Ft.) & DATE MEASURED 7/27/05
ESTIMATED YIELD * 500 (GPM) & TEST TYPE pump
TEST LENGTH 24 (Hrs.) TOTAL DRAWDOWN 70 (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 100	32	X				Steel	23.5	.250	
0 100	23.5	X				Steel	13.4	.375	
100 180	23.5		X			Steel SS	13.4	.250	.080

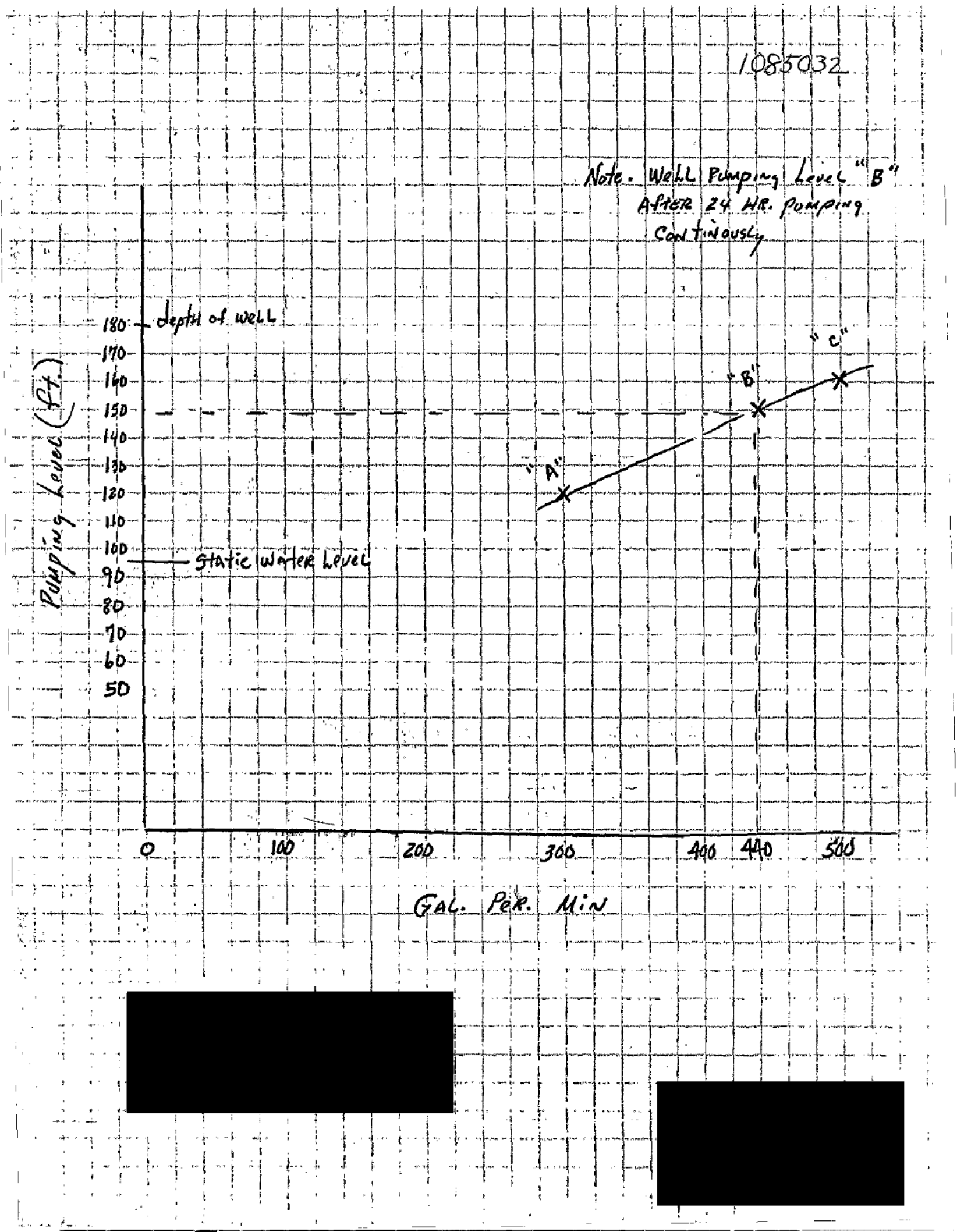
DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 100	X			

ATTACHMENTS (✓)
___ Geologic Log
✓ Well Construction Diagram
✓ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Map
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
[redacted]

1085032

Note. Well Pumping Level "B"
After 24 HR. pumping
Continuously



[redacted]

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[redacted]

1085032

PUMP

PUMP SETTING 170 feet HP. 50

DATE July 26 2005

TIME	G.P.M.	PUMPING LEVEL
12:00	300	120 ft.
12:30	300	120 ft.
1:00	500	140
1:30	500	142
2:00	500	146
2:30	500	146
3:00	500	146
3:30	500	146
4:00	500	146
4:30	500	146
5:00	500	146
5:30	500	146
6:00	560	144
6:30	500	145
7:00	500	147
7:30	500	147
8:00	500	148
8:30	500	148
9:00	500	148
9:30	500	148
10:00	450	147
10:30	450	147
11:00	450	147
11:30	450	147
12:00	450	147
12:30	450	147
1:00	450	147
1:30	450	147
2:00	440	147
2:30	440	147
3:00	440	147
3:30	440	147
4:00	440	147

July 28-05

1085032

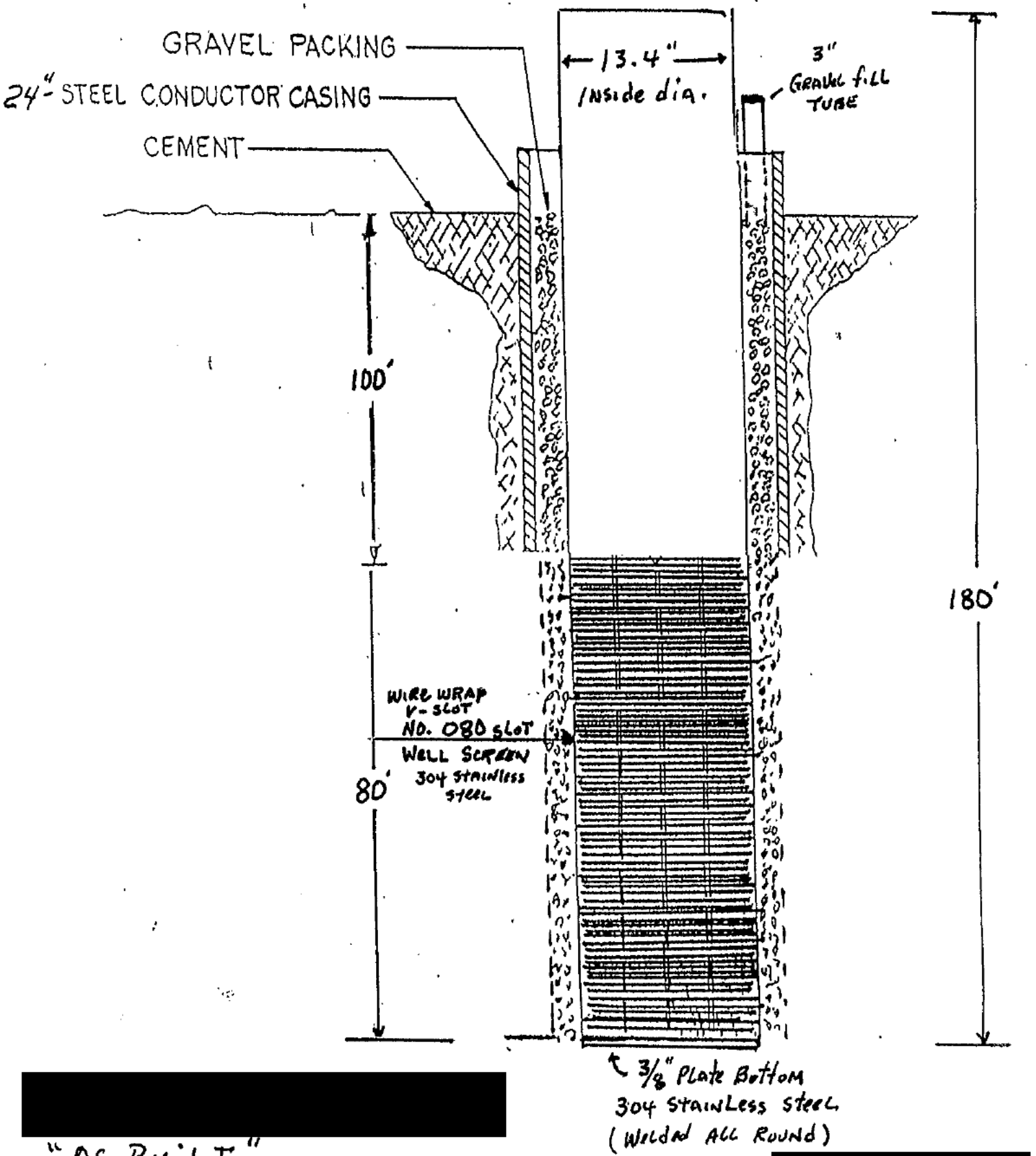
DATE JULY 28 2005

TIME	G.P.M.	PUMPING LEVEL (ft)
4:30	440	147
5:00	440	147.5
5:30	440	
6:00	440	
6:30	440	
7:00	440	
7:30	440	
8:00	440	
8:30	440	
9:00	440	
9:30	440	
10:00	440	
10:30	440	
11:00	440	
11:30	440	
12:00	440	147.5 ft.

[redacted]

[redacted]

1085032



[redacted]

"AS BUILT"

[redacted]

ORIGINAL
File with DWR

10S/1W-08

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 487614

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. _____
Date Work Began 9/14/92 , Ended 9/29/92
Local Permit Agency San Marcos
Permit No. [redacted] Permit Date 9/9/92

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	45	heavy sand, bolders
45	60	heavy sand, some clay
60	75	medium sand, some bolders and clay
75	95	medium sand, bolders, black sticky clay
95	155	light sand some dark clay
155	200	cemented light sand, some bolders and clay
200	225	light sand layer
225	227	light sand, bolders
227	235	light sand
235	275	cemented light sand
275	277	light sand
277	280	cemented light sand
280	281	light sand
281	296	cemented light sand
296	300	light sand
300	308	semi hard rock
308	309	granite

TOTAL DEPTH OF BORING 309 (Feet)
TOTAL DEPTH OF COMPLETED WELL 300 (Feet)

WELL OWNER

[redacted]

WELL LOCATION

[redacted]

APN Book ___ Page ___ Parcel ___
or Township ___ Range ___ Section Rancho Land
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

[redacted]

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
X Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD mud rotary FLUID bentonite

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD* ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	21	32	x				steel	17½	250	
0	160	18	x				steel		250	
180	220		x				steel		250	
160	180			x			S. steel		0.60	
220	300			x			S. steel		0.60	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE · SIZE)
0	20	x			
0	300				5/16 mix

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

DWR 188 REV 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 757114

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. [redacted]
Date Work Began 10/18/02 , Ended 11/6/02
Local Permit Agency Dept of Env. Health
Permit No. [redacted] Permit Date 10/1/02

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID Gel

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
		ALLUVIAL FAN-GLOMERATE AS FOLLOWS
0	45	Fine to coarse sand with boulders brown color
45	53	Coarse sand - small boulders light brown color
53	73	Fine to coarse sand, partly cemented brown color
73	93	Claey sand and silt
93	108	Black silty sand
108	113	Clacy sand with small rocks
113	128	Silty sand
128	173	Fine to coarse sand,partly cemente
173	211	Medium to coarse sand, some small aggregates
211	216	Boulder
216	275	Hard packed - partly cemented medium to coarse sand grey color
275	314	Weathered bedrock - granite

TOTAL DEPTH OF BORING 314 (Feet)
TOTAL DEPTH OF COMPLETED WELL 295 (Feet)

WELL OWNER

[redacted]
ZIP

WELL LOCATION

[redacted]
Township 10S Range 1W Section 8
Latitude DEG. MIN. SEC. NORTH Longitude DEG. MIN. SEC. WEST

LOCATION SKETCH

[redacted]
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
___ Domestic ___ Public
X Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 190± (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 177 (Ft.) & DATE MEASURED 11/6/02
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	20	34	X				A-53-B	24	.250	
0	175	23	X				A-53-B	13.5	.250	
175	275	23		X			304 SS	13.5	.250	.060
275	295	23	X				A-53-B	13.5	.250	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	X			
20	300				4X8

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
X Other Site Maps

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

State 10S01W08

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0295655

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Page One of One

Owner's Well Number [redacted]

Date Work Began 11/24/2015 Date Work Ended 12/22/2015

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 9/15/15

Geologic Log

Orientation ⊙ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	9	Brown Sand & Small Boulders
9	14	Course Brown Sand
14	67	Brown Sand & Boulders
67	103	Course Brown Sand
103	107	Tooley Mud
107	144	Brown Sand & Boulders
144	151	Brown Clay
151	186	Grey Compact Sand
186	194	Hard Brown Clay
194	202	Sand & Small Boulders
202	263	Semi Hard Brown & White Weathered Rock
263	287	Brown Clay
287	310	Grey & White Weathered Rock

Total Depth of Boring 310 Feet

Total Depth of Completed Well 300 Feet

Well Owner

[redacted]

Well Location

[redacted]

Township _____ Range _____ Section _____

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

⊙ New Well
○ Modification/Repair
○ Deepen
○ Other _____
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

⊙ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level 240 (Feet) Date Measured 12/22/2015

Estimated Yield * 100 (GPM) Test Type Air Lift

Test Length 8.0 (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	20	32	Conductor	Low Carbon Steel	.250	24		
0	200	24	Blank	PVC F-480	.825	14		
200	300	24	Screen	304L Stainless	.250	14	Wire Wrap	0.060

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Cement	
0	310	Filter Pack	#6

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

MAR 28 2016

DUPLICATE
Driller's Copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill

No. 241443

Notice of Intent No. [redacted]
Local Permit No. or Date

State Well No.
Other Well No.

(1) OWNER: [redacted]

Township 10 S Range 1 W Section 8

Distance from cities, roads, railroads, fences, etc.
SEE ATTACHMENT

[redacted]

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well X Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation X
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT: mud X
Rotary X Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes X No ☐ Size 5/16 x #16
Diameter of bore
Packed from 25 yds to ft.

(7) CASING INSTALLED:
Steel X Plastic X Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	21	24	.250"
0	352	12	SDR21

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
113-157, 186-212, 248-253, 267-275, 290-303, 313-316, 337-350		.057

(9) WELL SEAL:
Was surface sanitary seal provided? Yes X No ☐ If yes, to depth 20 ft.
Were strata sealed against pollution? Yes ☐ No X Interval ft.
Method of sealing

(10) WATER LEVELS:
Depth of first water, if known ft.
Standing level after well completion 104 ft.

(11) WELL TESTS:
Was well test made? Yes X No ☐ If yes, by whom R. Anderson
Type of test Pump ☐ Bailer ☐ Air lift X
Depth to water at start of test ft. At end of test ft
Discharge 900+ gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No X If yes, by whom?
Was electric log made? Yes X No ☐ If yes, attach copy to this report

(12) WELL LOG: Total depth 352 ft. Depth of completed well
from ft. to ft. Formation (Describe by color, character, size of material)

from ft.	to ft.	Formation
0	2	Silty sand
2	7	Sand w/ rocks
7	13	Loose Boulders, rough drilli
13	19	Boulders, very rough drillin
19	20	Granite Boulder
20	22	Boulders
22	37	Semi-consolidated sand & gravel, some rocks
37	49	Brown silty sand & gravel
49	58	Sand, a few gravels
58	69±	Silty clay, some sand
69±	105	Sand, a few gravels, silt streaks around 80'
105	108	Black sticky silts
108	111	Black silt
111	113	Boulders, very rough
113	118	Consolidated sand & gravel w/ some rocks
118	128	Consolidated s. & g. w/more r
128	129	Rocks
129	144	Consolidated sand, few gravel
144	150	Browner clayey sand, fewer r
150	162	Consolidated sand
162	200±	Semi-consolidated reddish sa
200±	230	Looser drilling-higher sand content
230	238	Semi-consolidated sand, fine s
238	239	rocks
239	249	Semi-consolidated reddish sa
249	255	Consolidated sand
255	261	Semi-consolidated sand, brt.
261	263	Rocks, rough & slow
263	267	Consolidated sand & gravel
267	268	Very loose sand
268	271	Greenish-gray clay, very tigh
271	341	Semi-consolidated sand, w/roc
341	351	Boulders
351	352	Consolidated sand

Work started 1/24/ 1985 Completed 4/19 19 85

WELL DRILLER'S STATEMENT:
[redacted]

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

TRIPLICATE
Owner's Copy

Page 1 of 1

Owner's Well No. [redacted]

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 1083141

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Date Work Began 9/13/2010, Ended 10/5/2010

Local Permit Agency DEH

Permit No. [redacted] Permit Date 9/15/2010

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Rotary FLUID Gel

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	ALLUVIAL FAN/GLOMERATE AS FOLLOWS
0 to 31	Sand, fine to coarse with hard round, boulders
31 to 51	sand, fine to medium - brown color
51 to 66	Brown sand - small boulders
66 to 88	Cemented sand & gravel
88 to 98	Coarse brown sand
98 to 101	Grey Clay
101 to 126	Brown sand - small rocks
126 to 134	Boulders, rough drilling
134 to 161	Sand browncla[illegible] - some boulders
161 to 223	Coarse Sand - brown color
223 to 287	Consolidated sand - hard
287 to 306	Hard, cemented sand
306 to 328	Weathered rock

TOTAL DEPTH OF BORING 328 (Feet)

TOTAL DEPTH OF COMPLETED WELL 325 (Feet)

[redacted]

WELL LOCATION

[redacted]

Township [redacted] Range 1W Section 9

[redacted]

LOCATION SKETCH

NORTH

[redacted]

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)
___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER UKN (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 235 (Ft.) & DATE MEASURED 10/5/2010

ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 to 20	30	X				Steel	19.5	.250	
0 to 218	20	X					12	.250	
218 to 318	20		X			304 SS	11.75	.250	.060
318 to 323	20	X				Steel	12	.250	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 to 20	X			
20 to 325				#6

ATTACHMENTS (✓)

___ Geologic Log
✓ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site MAP

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

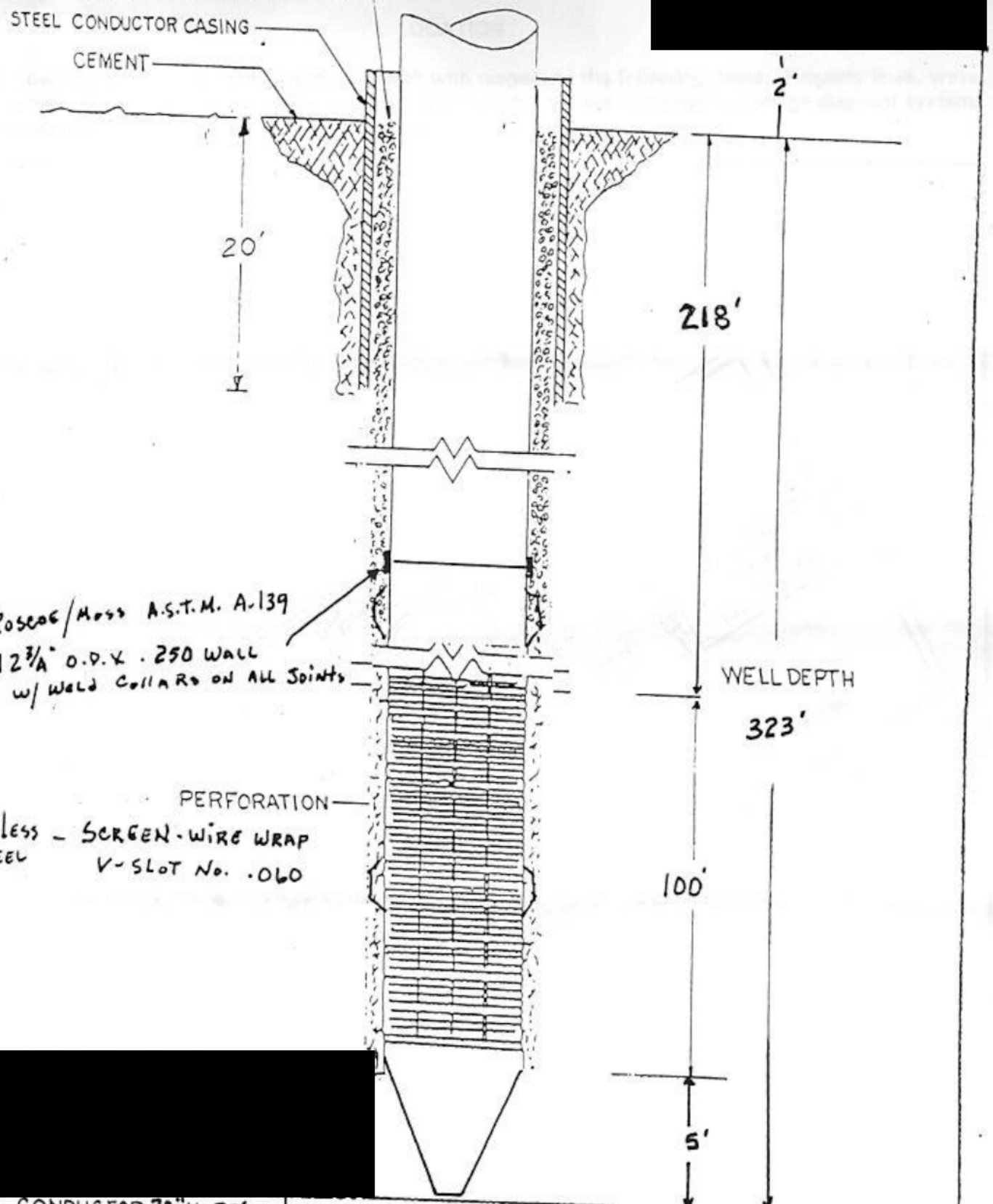
[redacted]

DWR 188 REV. 05-03

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

[redacted]

WELL



[redacted]

STEEL CONDUCTOR 20" X 22'
STEEL LINER 12" X 325'
GRAVEL SIZE #6

[redacted]

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0364705

Page 1 of 1

Owner's Well Number

Date Work Began 01/08/2018 Date Work Ended 2/12/2018

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 1/10/18

DWR Use Only -- Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	22	Boulders and Brown Sand
22	27	Course Brown Sand
27	66	Boulders and Brown Sand
66	86	Brown Clay
86	92	Grey Clay
92	111	Grey Clay and Silt
111	147	Sand and Boulders
147	188	Course Brown Sand
188	215	Cemented Sand and Clay
215	257	Hard Brown Cemented Sand
257	271	Red Clay
271	341	Hard Brown Cemented Sand
341	347	Red Clay
347	357	Multi Color Weathered Rock
357	370	Black / White Granite
		** 14" Sump is Filled with Concrete to be Drilled
		Out Later, if Deepened.

Total Depth of Boring 370 Feet

Total Depth of Completed Well 370 Feet

Well Owner (confidential pursuant to CA Water Code 13752)

[redacted]

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level 249 (Feet) Date Measured

Estimated Yield * 150 (GPM) Test Type Constant Rate

Test Length 12.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	20	30	Conductor	Low Carbon Steel	.250	24		
0	225	23	Blank	Low Carbon Steel	.250	16		
225	365	23	Screen	304 Stainless Steel	.250	16	Wire Wrap	0.125
365	370	23	Sump	Low Carbon Steel	.250	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Cement	
0	370	Filter Pack	Rancho Mix

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

ORIGINAL
File with DWR

SEP 3 1968

105 01W 09L002S

[redacted]

WATER WELL DRILLERS REPORT

(Sections 7079, 7080, 7081, 7082, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Do Not Fill In

No. 33652 March

State Well No. 10S/01W-09L02S

Other Well No.

(1) OWNER:

N:
A:

(2) LOCATION OF WELL:

[redacted]

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐
Cable ☒
Other ☐

(6) CASING INSTALLED:

STEEL: OTHER:

SINGLE ☒ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall
0	317	16	.250
0	415	14	.250
407	485	12	.250

Size of shoe or well ring: none

Describe joint Welded

If gravel packed

Diameter of Bore	From ft.	To ft.
20"	0	130
18"	130	190
16"	190	415
Size of gravel:	415	485

Gravel ½ inch

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
174	317	16	4	2½ x 3/16
325	415	14	4	" "
410	470	12	4	" "
470	485	4	1	6" x 3/16

Torch perforated

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth ft.

Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing Cementing

(9) WATER LEVELS: 1st water 140'

Depth at which water was first found, if known 2nd, over 225 ft.

Standing level before perforating, if known 225 ft.

Standing level after perforating and developing 225 ft.

(10) WELL TESTS:

Pump test made? Yes ☒ No ☐ If yes, by whom? Pump Orange County

Yield: 600 gal./min. with Approx. 75 ft. drawdown after 2 hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 485 ft. Depth of completed well 485 ft.

Formation: *Describe by color, character, size of material, and structure*

(0 - 458 Alluvial fill 458-485 Granite Schist)
As Follows
0 - 65 Ft Sand & rocks & brown color
65 - 75" Boulders to 2 ' in Diameter.
75-90 " Sand & rock , fine to coarse. sand, small rocks, Brown color.
90 - 100' Sand, brown color, small rocks
100 - 125' Lenses of red silt & sand, small Rocks
125 - 150' Layers of red brown silt with some coarse sand and small gravel.
150 - 160' Brown Silt
160 - 194 Hard packed fill, Small rocks
194 - 330 Hard & soft layers, sand & rock sand brown color, med, to coarse
330 - 335 Clay, brown
335 - 360' Clay streaks with rocks, Brown
360-367' Red clay & rock
367-404' Partly cemented sand & rock, green gray color.
404-410 Soft clay streak
410-458 Hard alluvial ~~gravel~~, Green Gray color.
458-485 Granite Schist, gray color

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

Work started 3/21 19 68 , Completed 5/21 19 68

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[redacted]

SKETCH LOCATION OF WELL ON REVERSE SIDE

DWR 188 (REV. 9-65)

56391-950 10-65 50M TRIP ① △ OSP

TRIPLICATE
Owner's Copy

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 1082848

Page 1 of 1
Owner's Well No. [redacted]
Date Work Began 9/4/09, Ended 10/20/09
Local Permit Agency DEH
Permit No. [redacted] Permit Date 9/3/09

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID Gel & Air

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0 33	Alluvial fan - glomerate consisting of fine to coarse sand with hard round to semi round boulders brown color
33 37	REd clay with small rocks
37 156	Clacy sand with small to medium boulders
156 355	Older alluvium - clacy sands hard, cemented red/brown turning to grey
355 388	Weathered rock - brown to turning gray
388 733	Hard rock - granitic gneiss
733 750	Quartz diorite - white color
750 1100	Granodiorite - primmary quartz
1100 1106	Fracture zone (water)
1106 1304	Granodiorite - black and white col
1304 1305	Fracture - water seepage
1305 1564	Quartz diorite
1564 1565	Fracture - water
1565 1758	Quartz diorite - H.S. Gas at 1758
1758 1812	Quartz diorite

TOTAL DEPTH OF BORING 1812 (Feet)
TOTAL DEPTH OF COMPLETED WELL 1812 (Feet)

WELL OWNER
[redacted]

WELL LOCATION
[redacted]

Township 10S Range 1W Section Pauma (9)
Lat ___ DEG. ___ MIN. ___ SEC. N Long ___ DEG. ___ MIN. ___ SEC. W

LOCATION SKETCH
[redacted]
SOUTH
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. ***PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)
___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
X
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH TO FIRST WATER unk (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 219 (Ft.) & DATE MEASURED 11/7/09
ESTIMATED YIELD * 95 (GPM) & TEST TYPE
TEST LENGTH 4 (Hrs.) TOTAL DRAWDOWN 1000 (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 375	22"	X				Steel	15.5	.250	
375 680	14"					open hole			
680 1200	12.250					open hole			
1200 1812	8.5					open hole			

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 20	X			
20 350			X	
350 375	X			

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
X Other Site Maps
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
[redacted]

DWR 188 REV. 05-03 IF ADDITIONA

[redacted] Well

Well dug and curbed by [redacted] before being drilled.
Cement Curb 4' X 4'6" To depth of 54ft
Finding coarse sand and gravel with water at 48'

Set 16" O. D. Pipe at 54'.Pipe weigth.55Lbs per ft.
Welded joints.
Sand and grvel continueing to 97'
Finding Fine muddy Sediment as the drill reached the 97' level.
Water rising 24'.to 32' from surface.
Blue Clay (TOOLIE BED) 97'TO 100'
Fine dirty Sand with big Boulders 100'TO 115'
Muddy sand and Red clay 105 to 315'
Finding Water running down the hole through the Toolie Bed and escapeing 315.
Pipe was set and cemented (Plugged) at 117'
Cement plugged back to 97'
Perforated with Mills Knife.1/2".
From 56'TO 97'

PUMP TEST.
Starting with 20" about 5% sand clearing and increasing pump speed to 30"" in four hours.
set over night .
increse pump speed to 40"in four more hours.
broke pump Engine and Quit.
Useing Peerless Test pump and Orfice Measurement.

[redacted]

10S 01W 09 P002S No NE found

ORIGINAL
File with DWR

9?

WATER WELL DRILLERS REPORT

(Sections 7079, 7080, 7081, 7082, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

OLD LOG # 28982 28992
Do Not Fill In

No 37201

State Well No. 10S/01W-09P02 S

Other Well No.

(1) OWNER:

[redacted]

(2) LOCATION OF WELL:

[redacted]

(3) TYPE OF WORK (check):
New Well ☐ Deepening ☐ Reconditioning ☒ Destroying ☐
If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:
Rotary ☐
Cable ☒
Other ☐

(6) CASING INSTALLED:
STEEL: OTHER:
SINGLE ☒ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.
0	391	12	.250	18	0	355

If gravel packed

Size of shoe or well ring:
Size of gravel:
Describe joint

(7) PERFORATIONS OR SCREEN:
Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.

(8) CONSTRUCTION:
Was a surface sanitary seal provided? Yes ☐ No ☐ To what depth ft.
Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata
From ft. to ft.
From ft. to ft.
Method of sealing

(9) WATER LEVELS: this date 2/21/66
Depth at which water was first found, if known 230 ft.
Standing level before perforating, if known ft.
Standing level after perforating and developing 230 ft.

(10) WELL TESTS:
Was pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
Temperature of water Was a chemical analysis made? Yes ☐ No ☐
Was electric log made of well? Yes ☐ No ☐ If yes, attach copy

(11) WELL LOG:
Total depth 407 ft. Depth of completed well ft.
Formation: Describe by color, character, size of material, and structure
ft. to ft.

Cleaned out 15 ft of sand that accumilated below turbine pump. Found all other conditions good.

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

Work started 2/18 19 66 Completed 2/18 19 66

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[redacted]

SKETCH LOCATION OF WELL ON REVERSE SIDE

56891-980 10-65 50M TRIP ① △ OSP

37201

DUPLICATE
File Original, Duplicate and Triplicate with the REGIONAL WATER POLLUTION CONTROL BOARD No. 9 (9)
(Insert appropriate number)

WATER WELL DRILLERS REPORT
(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

Do Not Fill In
No. 28982
State Well No. 10S/01W-09P02 S
Other Well No.

(1) OWNER:
Name [redacted]
Address
City

(2) LOCATION OF WELL:
[redacted]

(3) TYPE OF WORK (*check*):
New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (*check*):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:
Rotary ☐
Cable ☒
Dug Well ☐

(6) CASING INSTALLED:
SINGLE ☒ DOUBLE ☐

From	ft. to	ft.	Diam.	Gage or Wall
0	391	12	.250	

If gravel packed

Diameter of Bore	from, ft.	to ft.
18"	0	355

Type and size of shoe or well ring: Baker 12"
Describe joint: welded
Size of gravel: 1/2"

(7) PERFORATIONS:
Type of perforator used: Mills
Size of perforations: 3/8 in., length, by 2" in.

From	ft. to		Perf. per row	Rows per ft.
190	355	6	1	
365	390	6	1	

(8) CONSTRUCTION:
Was a surface sanitary seal provided? ☐ Yes ☐ No To what depth ft.
Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata
From ft. to ft.
Method of Sealing

(9) WATER LEVELS:
Depth at which water was first found: 190 ft.
Standing level before perforating: 190 ft.
Standing level after perforating: 190 ft.

(10) WELL TESTS:
Was a pump test made? ☒ Yes ☐ No If yes, by whom? WEBB PUMP Co.
Yield: 530 gal./min. with 132 ft. draw down after 24 hrs.
Temperature of water Was a chemical analysis made? ☐ Yes ☒ No
Was electric log made of well? ☐ Yes ☐ No

(11) WELL LOG:
Total depth 407 ft. Depth of completed well 407 ft.
Formation: *Describe by color, character, size of material, and structure.*

0 ft. to 2 ft.	Brown Soil & Pebbles
2 " 135 "	Grey Decomposed Granite
135 " 160 "	Pink " "
160 " 225 "	Grey " "
225 " 234 "	Grey Granite Bloulders
234 " 355 "	Grey Decomposed Granite
355 " 365 "	Yellow Clay
365 " 390 "	Grey Decomposed Granite
390 " 405 "	Grey Hard Gneiss

Casing left 2 ft. above ground level.
Total depth below top of pipe 407 Ft.

Pump test GPM from Depth

220	225
250	235
350	240
400	255
550	323

Well pumped some GAS at pumping rates of 400 to 530 GPM

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MICROFILMED

Work started Dec 19 19 60 Completed Jan 21 19 6

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
[redacted]

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR 10S 01W 13

Page One of One

Owner's Well Number [redacted]

Date Work Began 08/11/2017 Date Work Ended 4/2/2018

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 8/11/17

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0365265

DWR Use Only – Do Not Fill In
State Well Number/Site Number
N / W
Latitude / Longitude
APN/TRS/Other

Geologic Log

Orientation ⦿ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Mud & Air

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	22	Soft Brown Sandy Clay W/ Boulders
22	84	Grey Partialy Cemented Sand & Boulders
84	277	Soft Weathered Grey Granite
277	361	Greenish Grey Clayey Weathered Rock
361	455	Grey Heavily Weathered Rock / Broken
		Mud Rotary Stopped Here
455	702	Mostly Grey Granite W/ Greenish Brown Clay
		Matrix in Broken Zones
702	715	Soft Broken Zone (caving)
715	765	Greenish Grey Hard Granite
765	1,010	Hard Grey Granite

Total Depth of Boring 1010 Feet

Total Depth of Completed Well 400 Feet

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. **Please be accurate and complete.**

Activity

⦿ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

⦿ Water Supply
☐ Domestic ☑ Public
☐ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 360 (Feet below surface)

Depth to Static Water Level 170 (Feet) Date Measured 03/30/2018

Estimated Yield * 45 (GPM) Test Type Air Lift

Test Length 8.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	100	18	Conductor	Low Carbon Steel	.250	10.75		
0	200	16	Blank	PVC F-480	.508	8.63		
200	400	16	Screen	PVC F-480	.508	8.63	Milled Slots	0.032

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	100	Cement	10 Sack Slurry
0	400	Filter Pack	Rancho Mix

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 2/2017

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

MAY 01 2018

Owner's Copy

Page 1 of 1

Owner's Well No. _____

Date Work Began _____, Ended 1/25/94

Local Permit Agency San Marcos

Permit No. W62554 Permit Date 10/14/93

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. 395641

STATE WELL NO./STATION NO. _____

LATITUDE _____ LONGITUDE _____

APN/TRS/OTHER _____

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DEPTH TO FIRST WATER _____ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	20	gray sand and boulders
21	40	sand and gravel
41	60	sand, gravel w/boulders
61	80	clay and boulders
81	100	clay and boulders
101	120	clay and boulders
121	140	clay and gravel mixed
141	160	clay and gravel mixed
161	180	clay and gravel mixed
181	200	semi hard rock, multi colored
201	217	sand and gravel
218	240	sand and gravel
240	244	sand and clay
245	265	clay, sand and gravel
266	268	boulder
269	274	sand and gravel
275	277	boulder
278	280	sand and gravel w/clay lenses
281	330	sand and clay mix
335	358	d.g. brown w/clay layers
359	360	boulder
364	365	clay brown/red
366	400	sand and clay
401	425	sand and clay
426	430	boulders and clay, sand
431	490	sand w/clay layers
491	501	hard rock
502	520	sand and clay
521	610	granodiorite (hard)

TOTAL DEPTH OF BORING 610 (Feet)

TOTAL DEPTH OF COMPLETED WELL 582 (Feet)

WELL OWNER

Name Yuima Municipal Water District

Mailing Address P. O. Box 177

City Pauma Valley CA. State 92061 ZIP

WELL LOCATION

Address [redacted]

City Pauma Valley

County San Diego

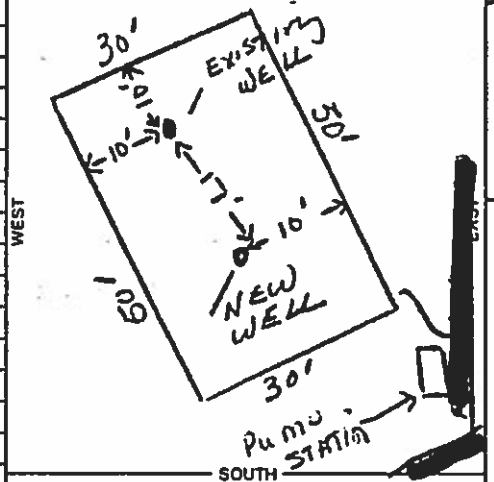
APN Book _____ Page _____ Parcel _____

Township _____ Range _____ Section RANCHO LAND

or

Latitude _____ DEG. MIN. SEC. NORTH Longitude _____ DEG. MIN. SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL

___ MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USE(S) (✓)

___ MONITORING

WATER SUPPLY

___ Domestic

___ Public

___ Irrigation

___ Industrial

___ "TEST WELL"

___ CATHODIC PROTECTION

X OTHER (Specify)

municipal

DRILLING METHOD mud rotary FLUID bentonite

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 235 (Ft.) & DATE MEASURED 2/1/94

ESTIMATED YIELD* 500 (GPM) & TEST TYPE air lift

TEST LENGTH 24 (Hrs.) TOTAL DRAWDOWN unkn (Ft.)

* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONNECTOR	FALL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	104	32	x				steel	24	250	-
0	282	24	x				steel	14	250	
282	582	24	x				steel	14	250	050

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE SIZE)
0	100	x			
					5/16 Rancho
					Mix

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other _____

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME HIDDEN VALLEY PUMP SYSTEMS, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

27932 Valley Center Road, Valley Center, CA. 92082
ADDRESS CITY STATE ZIP

Signed Austin Wedgeworth 2/7/94 487325
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

TRIPLICATE
Owner's Copy

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 745232

DWR USE ONLY — DO NOT FILL IN —
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Page ___ of ___
Owner's Well No. [redacted]
Date Work Began 3-14-01 Ended 3-24-01
Local Permit Agency San Marcos
Permit No. [redacted] Permit Date 3-14-01

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL X HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID bentonit

DEPTH FROM SURFACE Ft	to Ft	DESCRIPTION Describe material, grain size, color, etc.
0	5	top soil
6	24	sand/stones
24	31	gray sand/stones
31	44	gray sand/stones w.clay layer
44	63	gray clay
64	84	gray clay/sand/stones
85	105	gray sand/boulders
106	125	gray sand/boulders
126	145	gray sand/gravel
146	166	gray sand/boulders w/ clay layers
166	175	sand/boulders
176	196	gray sand/boulders
197	219	semi hard rock
219	240	semi hard granodiorite

TOTAL DEPTH OF BORING 240 (Feet)
TOTAL DEPTH OF COMPLETED WELL 240 (Feet)

[redacted]

Township ___ Range ___ Section ___
Latitude ___ NORTH Longitude ___ WEST
DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

[redacted]

... PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)
WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL unkn (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * no test (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	60	34"	x				steel	24"	250	–
0	120	24"	x				steel	16"	250.	
120	220	24"		x			stan.steel	16"		0.60
220	240	24"	x				steel	16"	250.	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	60	x			

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

CERTIFICATION STATEMENT

[redacted]

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0267549

Page One of One

Owner's Well Number

Date Work Began 04/21/2015 Date Work Ended 5/19/2015

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 3/5/15

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ⊙ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary & Down Hole Hammer Drilling Fluid Mud & Air

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	39	Brown Sand & Small Boulders
39	101	Boulders & Sand
101	144	Course Brown Sand
144	188	Boulders & Course Sand
188	196	Red Clay
196	218	Red Decomposed Granite
218	243	White & Grey Weathered Rock
243	349	Grey Granite
349	353	Soft Broken Granite
353	368	White & Grey Granite
368	385	Soft Grey Broken Granite W/ Grey Clay Matrix
385	412	Hard Grey Granite
412	425	Grey Granite W/ Quartz Streaks
425	765	Grey Granite
765		Fracture No Water
765	1,193	Grey Granite
1193	1,196	White Quartz
1196	1,642	Grey Granite
1642	1,643	Fracture 100 GPM
1643	1,688	Grey Granite
1688	1,690	Fracture Zone 300 GPM
1690	1,693	Grey Granite

Total Depth of Boring 1693 Feet

Total Depth of Completed Well 1693 Feet

Well Owner

[redacted]

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. **Please be accurate and complete.**

Activity

⊙ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

⊙ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 1,642 (Feet below surface)

Depth to Static Water Level 222 (Feet) Date Measured 05/19/2015

Estimated Yield * 400 (GPM) Test Type Air Lift

Test Length 8.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	268	15	Conductor	Low Carbon Steel	.250	10 3/4		
0	400	10	Blank	Low Carbon Steel	.188	8 5/8		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	268	Cement	

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

DUPLICATE
File Original, Duplicate and Triplicate with the
REGIONAL WATER POLLUTION
[redacted]TROL BOARD No.
(appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

10S 01W 16 G001S

Do Not Fill In
No. 13515
State Well No. 10S/1W-16G1
Other Well No.

PLOTTED

(1) OWNER:
[redacted]ne
[redacted]ress

(2) LOCATION OF WELL:
[redacted]

(3) TYPE OF WORK (check):
New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:
Rotary ☐
Cable ☒
Dug Well ☐

(6) CASING INSTALLED:
SINGLE ☒ DOUBLE ☐ 1-X-250

From ft.	to ft.	Diam.	Gage or Wall
0	330	12	14

1-80

If gravel packed

Diameter of Bore	from ft.	to ft.

Type and size of shoe or well ring 12" x 7/8
Size of gravel:
Describe joint welded

(7) PERFORATIONS:
Type of perforator used mills 25-25
Size of perforations 1/4" in., length, by 21/22 in.

From ft.	to ft.	Perf. per row	Rows per ft.
160	328	8	1

(8) CONSTRUCTION:
Was a surface sanitary seal provided? ☐ Yes ☒ No To what depth ft.
Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata
From ft. to ft.
Method of Sealing

(9) WATER LEVELS:
[redacted]t which water was first found 169 ft.
[redacted]g level before perforating 169 ft.
[redacted]g level after perforating 169 ft.

(10) WELL TESTS:
[redacted]ump test made? ☐ Yes ☒ No If yes, by whom?
Yield: gal./min. with ft. draw down after hrs.
Temperature of water Was a chemical analysis made? ☐ Yes ☐ No
Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:
Total depth 360 ft. Depth of completed well 330 ft.
Formation: Describe by color, character, size of material, and structure.

ft.	to ft.	
0	49	silt clay and decomposed granite
49	104	soft sandy clay
104	150	hard clay and D G
150	162	more granite in it
162	166	gravel
166	178	verry hard D G
178	186	gravel
186	190	silt and clay
190	198	loose sand and gravel
198	204	soft sandy clay
204	208	loose gravel lots silt
208	212	hard sandy clay
212	228	soft clay
228	232	hard sandy clay
232	238	stickey clay
238	250	loose silt some gravel
250	254	good gravel
254	282	hard conglomeat
282	292	soft silt and sand
292	302	clay with somesand and gravel
302	312	hard grey cong.
312	316	soft silt sand and gravel
316	330	sandy red clay
330	332	grey sandy clay
332	358	D G
358	360	granite

MICROFILMED

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Work started 6-23 55 Completed 7-8-55 19

WELL DRILLER'S STATEMENT:
[redacted]

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0176466

Page One of One

Owner's Well Number [redacted]

Date Work Began 04/14/2013 Date Work Ended 5/8/2013

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 2/20/13

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	10	Sandy Fill, Fine to Coarse Sand W/ One 20"
		Boulder
10	22	Silty Sand W/ Small Aggregate
22	80	Fine to Coarse Sand W/ Small Rocks
80	86	Fine Black Sand/ Tule Bed
86	129	Fine to Coarse Sand
129	133	Small Rocks
133	190	Hard, Firm, Partialy Cemented Aggregate
190	232	Weathered Decomposed Granite 5' Per Hour

Total Depth of Boring 232 Feet

Total Depth of Completed Well 229 Feet

Well Owner

[redacted]

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☑ Public
☐ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level 132 (Feet) Date Measured 05/06/2013

Estimated Yield * 380 (GPM) Test Type Constant Rate

Test Length 24.0 (Hours) Total Drawdown 43 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	100	32	Conductor	A-53B	.250	24		
0	139	23	Blank	PVC F-480	SDR 17	16		
139	224	23	Screen	304 SS	.250	14	Wire Wrap	0.050
224	229	23	Blank	304 SS	.250	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	100	Cement	
0	230	Filter Pack	#3

Attachments

☐ Geologic Log
☑ Well Construction Diagram
☑ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

County

RECEIVED

MAY 05 2015

ENVIRONMENTAL HEALTH

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0265192

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N | Longitude W

APN/TRS/Other

Page One of One

Owner's Well Number [redacted]

Date Work Began 03/19/2015 Date Work Ended 4/30/2015

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 3/11/15

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	26	Brown sand & small boulders
26	37	Boulders w/ brown sand
37	41	Grey clay
41	79	Course brown sand
79	81	Grey silty clay & organic material/wood chips
81	95	"Tule" bed Grey silty sand
95	112	Grey silty sand
112	139	Grey sand & boulders
139	153	Boulders
153	157	Brown weathered rock
157	168	Grey weathered rock
168	199	Grey & white weathered granite
199	220	Grey & white granite
		Slow drilling from 150ft

Total Depth of Boring 220 Feet

Total Depth of Completed Well 210 Feet

Well Owner

[redacted]

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level 164 (Feet) Date Measured 04/30/2015

Estimated Yield * 170 (GPM) Test Type Constant Rate

Test Length 24.0 (Hours) Total Drawdown 191 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	20	32	Conductor	Low Carbon Steel	.250	20		
0	110	20	Blank	PVC F480	.632	10.75		
110	200	20	Screen	304 Stainless Steel	.250	10.75	Wire Wrap	0.060
200	210	20	Sump	304 Stainless Steel	.250	10.75		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	20	Cement	
0	220	Filter Pack	#6

Attachments

☐ Geologic Log

☑ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☑ Other Site Map & Pump Test

Attach additional information, if it exists.

Certification Statement

[redacted]

[redacted]

E OF CALIFORNIA
SOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

[redacted]

Do not fill in
No. 288113

QUADRUPLICATE
Use to comply with local requirements

Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. _____ (35)
Other Well No. _____

[redacted]

(2) LOCATION OF WELL (See instructions)

[redacted]

(12) WELL LOG: Total depth 204 ft. Completed depth 204 ft.

from ft.	to	ft.	Formation (Describe by color, character, size or material)
0	–	35	med. gray sand
36	–	45	med. gray sand & small ston
46	–	65	med. to fine gray sand
66	–	80	med. to fine gray sand
81	–	85	~~xxxxxx~~ mud (gr. clay & silt
	–		toolie sand)
86	–	105	~~xxxxxx~~ mud bl. & gray color
106	–	120	toolie " " "
121	–	125	med. gray sand w/some gray clay
126	–	145	heavy gray sand (cemented)
	–		boulders
146	–	165	" " "
166	–	185	" " "
186	–	210	" " "

[redacted]

(3) TYPE OF WORK:
New Well ☐ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☐
Municipal ☐x
Other ☐
(Describe)

WELL LOCATION SKETCH

[redacted]

(5) EQUIPMENT:
Rotary ☐x Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☐x No ☐ Size 5/16 mix
Diameter of bore _____
Packed from 0 to 204 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☐x Concrete ☐

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	204	14"		60	70	80
				124	204	80

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☐x No ☐ If yes, to depth 60 ft.
Were strata sealed against pollution? Yes ☐ No ☐ Interval _____ ft.
Method of sealing Grout Cement

(10) WATER LEVELS:
Depth of first water, if known 60 ft.
Standing level after well completion 30 ft.

(11) WELL TESTS:
Was well test made? Yes ☐ No ☐ If yes, by whom? _____
Type of test Pump ☐ Bailer ☐ Air lift ☐
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes ☐ No ☐ If yes, by whom? _____
Was electric log made Yes ☐ No ☐ If yes, attach copy to this report

Work started 12/13 19 89 Completed 1/4 19 90

WELL DRILLER'S STATEMENT:

[redacted]

DWR 188 (REV. 12-86)

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

86 96355

ORIGINAL SEP 30 1978

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in

No. 127103

e of Intent No.

Local Permit No. or Date

State Well No.

Other Well No.

(2) LOCATION OF WELL

[redacted]

(3) TYPE OF WORK:
New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic [ ]
Irrigation [X]
Industrial [ ]
Test Well [ ]
Stock [ ]
Municipal [ ]
Other [ ]

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary [X] Reverse [ ]
Cable [ ] Air [X]
Other [ ] Bucket [ ]

(6) GRAVEL PACK:
Yes [X] No [ ] Size 3/8 Pea
Diameter of bore 12
Packed from 0 to 200 ft.

(7) CASING INSTALLED:
Steel [X] Plastic [ ] Concrete [ ]

(8) PERFORATIONS: Mill Slot
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	300	6	.188	80	300	1/8 X 2½

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 50 ft.
Were strata sealed against pollution? Yes [ ] No [X] Interval ft.
Method of sealing Cementing and cased

(10) WATER LEVELS:
Depth of first water, if known 60 ft.
Standing level after well completion 20 ft.

(11) WELL TESTS:
Was well test made? Yes [X] No [ ] If yes, by whom? Same
Type of test Pump [ ] Bailer [ ] Air lift [X]
Depth to water at start of test 20 ft. At end of test 300 ft
Charge 35 gal/min after 4 hours Water temperature Ukn
Chemical analysis made? Yes [ ] No [X] If yes, by whom?
Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

(12) WELL LOG: Total depth 352 ft. Depth of completed well 352 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	180	Alluvial fill consisting of Silty sand and some lenses of small rocks Overall color - brown
180	260	Decomposed granite - grey color
260	350	Hard rock, grenetic - overall color grey

Work started 7/26/ 19 78 Completed 8/2 19 78

WELL DRILLER'S STATEMENT:

[redacted]

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Page One of One

Owner's Well Number [redacted]

Date Work Began 01/24/2017 Date Work Ended 2/15/2017

Local Permit Agency SD DEH

Permit Number [redacted] Permit Date 12/5/16

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0335820

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	9	Sand
9	54	Sand & Small Boulders
54	58	Clay & Small Boulders
58	62	Coarse Gravel
62	93	Grey Sandy Clay
93	98	Tule Mud
98	109	Fine Sand
109	114	Sand W/ Medium Grained Multi Colored Gravel
114	138	Cemented Coarse Sand
138	147	Coarse Brown Sand
147	159	Boulders
159	202	Coarse Brown Sand
202	215	Coarse Brown Sand & Boulders
215	249	Cemented / Weathered Granite
249	253	Soft Quartz Granite
253	265	Weathered / Decomposed Granite
265	269	Hard Grey Granite
269	274	Medium Hard Dark Grey Granite

Total Depth of Boring 274 Feet

Total Depth of Completed Well 265 Feet

Well Owner

[redacted]

Well Location

[redacted]

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

[redacted]

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC Log"

Planned Uses

◉ Water Supply

☐ Domestic ☑ Public

☐ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level 91 (Feet) Date Measured 02/21/2017

Estimated Yield * 500 (GPM) Test Type Constant Rate

Test Length 24.0 (Hours) Total Drawdown 110 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	53	32	Conductor	Low Carbon Steel	.250	24		
0	109	24	Blank	PVC F480	.941	16		
109	115	24	Crossover	304 Stainless Steel	.250	16-14		
115	255	24	Screen	304 Stainless Steel	.250	14		
255	265	24	Sump	304 Stainless Steel	.250	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	53	Cement	
0	274	Filter Pack	#8

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☑ Other Site Map

Attach additional information, if it exists.

Certification Statement

[redacted]

DWR 188 REV. 1/2006

TRIPLICATE
Owner's Copy

Page ___ of ___
Owner's Well No. ___
Date Work Began ~~9/30/91~~ , Ended ~~10/25/91~~
Local Permit Agency ~~San Marcos~~ 36
Permit No. [redacted] Permit Date ~~9/24/91~~

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 491780

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	10	fine sand w/clay
10	50	med. sand
50	80	course sand w/some clay
80	129	med. sand w/clay
129	132	brownish clay
132	135	med. course sand
135	153	cement sand, med.
153	159	med. sand
159	160	boulders
160	175	cement course sand
175	178	boulder
178	205	cement med. sand
205	207	boulders
207	213	cement med. sand
213	223	semi hard d.g.
223	230	hard granite

TOTAL DEPTH OF BORING 230 (Feet)
TOTAL DEPTH OF COMPLETED WELL 214 (Feet)

WELL OWNER
[redacted]

WELL LOCATION
[redacted]
or Township 10S Range 1W Section 22
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH
NORTH
[redacted]
SOUTH
Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
X OTHER (Specify)
Municipal

DRILLING METHOD Rotary FLUID Bentonite

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH OF STATIC WATER LEVEL 65' (Ft.) & DATE MEASURED 11-11-91
ESTIMATED YIELD* 900 (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	56	32			x		steel	23¼	250	
0	116-6	22	x				pvc	13 3/8	7/8	
116-6	214	22		x			pvc	13 3/8	7/8	.60

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	56	x			Bradley
0	230			x	gravel pack 5/16

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
[redacted]

DWR 188 REV. 7-90 IF ADDITIONAL

[redacted]

105 01W 22 F006S

DUPLICATE
File Original, Duplicate and Triplic[redacted]
REGIONAL WATER POLLUTION
[redacted]TROL BOARD No. 9
appropriate number

WATER WELL DRILLERS REPORT
(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

Do Not Fill In
No 100321
State Well No. 10S/01W-22F06
Other Well No.

(2) LOCATION OF WELL:

[redacted]

(3) TYPE OF WORK (*check*):
New well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (*check*):
Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [X] Test Well [ ] Other [ ]

(5) EQUIPMENT:
Rotary [ ]
Cable [X]
Dug Well [ ]

(6) CASING INSTALLED:
SINGLE [X] DOUBLE [ ]

From ft.	to ft.	Diam.	Gage or Wall
[illegible]	130	20	.250
[illegible]0	260	12	.250

If gravel packed

Diameter of Bore	from ft.	to ft.
20"	0	257

Type and size of shoe or well ring: None
Describe joint: Welded
Size of gravel: 1/2"

(7) PERFORATIONS:
Type of perforator used: Machine cut
Size of perforations: 1/4 in., length, by 2 1/2 in.

From ft.	to ft.	Perf. per row	Rows per ft.
118	258	12	3

(8) CONSTRUCTION:
Was a surface sanitary seal provided? [X] Yes [ ] No To what depth: 130 ft.
Were any strata sealed against pollution? [ ] Yes [X] No If yes, note depth of strata

From ft.	to ft.

Method of Sealing

(9) WATER LEVELS:
Depth at which water was first found: 85 ft.
[illegible]g level before perforating: 83 ft.
[illegible]ding level after perforating: 83 ft.

(10) WELL TESTS:
Was a pump test made? [X] Yes [ ] No If yes, by whom? Webb Pump Co/.
Yield: 600 gal./min. with [illegible] ft. draw down after 24 hrs.
Temperature of water: Was a chemical analysis made? [ ] Yes [X] No
Was electric log made of well? [ ] Yes [X] No

(11) WELL LOG:
Total depth: 364 ft. Depth of completed well: 367 ft.
Formation: *Describe by color, character, size of material, and structure.*

0 ft. to 12 ft.		Sand and large boulders
12	43	Hard packed silt and large boulders
43	85	Coarse sand, gravel and large boulders
85	95	Hard packed Tule
95	118	Black silty sand
118	230	Cemented sand and small gravel
230	257	Hard metamorphose alluvial fill sand, clay rock
257	364	Hard granites with streaks of softer rocks, few fissures

8" hole in very hard rock 257 to 364'

20" hole to 257"

CONFIDENTIAL - NOT FOR PUBLIC RELEASE

Work started May 27 19 64 Completed July 7 19 64

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[redacted]

APPENDIX "B"

Copy of Well Log

"Rincon Ranch Water Wells 1946 Log of Well #3

0-20'	adobe sandy
20-30'	hard boulders
30-50'	sand and boulders
50-85'	decomposed granite
85-87'	hard boulder
87'-109'	decomposed granite and boulders
109'-112'	hard boulder
112- 196'	decomposed granite and boulders
196- 217'	soft decomposed granite
217 -311'	decomposed granite and boulders
311 -321'	soft decomposed granite
321 -440'	soft decomposed granite with hard boulders
440 -485'	soft decomposed granite no boulders
485 - 505'	decomposed granite with hard boulders
505 - 547'	hard blue granite

bottom of hole at 547'

505' to top of bed rock

392' of 8" I.D. casing of which 102' is not perforated from top down

127' of 6" liner put inside of the 8" casing and extends inside of 8" casing 31' up in casing.

drilled by Jim Scoggins and Son of Long Beach, California
July, 1946"

Well #3

Drilled 1946 by J.M. and J.L. Scoggins of Long Beach
Drilled by rotary rig
392' of 8" casing of which top 102' 6" is not perforated
127' of 6" casing dropped inside of 8" and which projects
20' up inside of 8" casing and is flared out to 8"
(this was measured to top of 6" by Scoggins, with us
watching and checking his measurement)

8" casing sets on a rock
547 of total hole
505' to top of bed rock
499" of cased hole
Bottom filled in to 499'
Flow of well measured over wier
Flow measured to 60 miner inches
5' drawdown on 60" flow

F-05-660

WATER WELL DRILLER'S REPORT

Driller: Vaughn Maynard & Sons
15562 Sullivan St.
Santa Ana, Calif.

Owner: Palomar Mutual Water Co.
Pauma Valley, Calif.
Well #10

Casing: 128 ft. of 16 in. dble. 10/ga.
284 ft. of 12 in. dble. 10/ga
All perforated with 18 rows
1/8 x 1-1/2"

16" perforated from 75 to 124
with 3/8 x 3, 6 cuts to round.

Shoe: 16 x 1 x 12

Water Levels:
Depth at which water was first found: 62' of May 4, 1953.
Standing level before perforating: 75' on July 11, 1953

Well Pumping Test:

Capacity 415 gal./min.
45' Draw down.

Location of Well:
County of San Diego
[redacted]

Well Log: well 10

0 ft.	to	10 ft.	top soil & boulders
10 "	"	14 "	sand & gravel
14 "	"	35 "	soil & boulders
35 "	"	39 "	gravel
39 "	"	62 "	soil & boulders
62 "	"	66 "	gravel
66 "	"	70 "	soil & boulders
70 "	"	74 "	hard boulders
74 "	"	104 "	hard decomposed granite
104 "	"	108 "	sandy clay
108 "	"	114	hard d.G.
114 "	"	122 "	soft d.G.
122 "	"	135 "	very hard d.G.
135 "	"	142 "	clay & boulders
142 "	"	145 "	very hard boulders
145 "	"	148 "	soft sandy clay
148 "	"	150 "	hard boulders
150 "	"	170 "	hard sandy clay
170 "	"	176 "	soft sandy clay
176 "	"	221 "	hard d.G.
221 "	"	223 "	hard quartz
223 "	"	246 "	D.G.
246 "	"	260 "	d.G. with silt and rocks
260 "	"	268 "	conglomoration-
268 "	"	272 "	very hard d.G.
272 "	"	274 "	soft silt
274 "	"	286 "	conglomoration
286 "	"	295 "	soft
295 "	"	300 "	sandy clay
300 "	"	315 "	sandy clay & rocks
315 "	"	320 "	very hard d.G.
320 "	"	335 "	conglomoration
335 "	"	353 "	silt, clay & some gravel
353 "	"	372 "	soft more gravel
372 "	"	390 "	hard silt clay
390 "	"	392 "	very hard d.G.
392 "	"	405 "	hard conglomoration.

Work started: May 4, 1953
Completed: July 11, 1953.

DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME: Vaughn Maynard & Sons
BY: Vaughn Maynard

[redacted] No. 111167
Classification C-57
Dated: July 27, 1953

Information copied from Well Driller's Report J.D.W. Simmons

QUADRUPLICATE
Use to comply with local requirements

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in
No. 351171

Notice of Intent No. _____
Local Permit No. or Date W30387

State Well No. _____
Other Well No. _____

(1) OWNER: Nan
Address _____
City _____

(2) LOCATION OF WELL (See instructions):

[redacted]

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic [ ]
Irrigation [ ]
Industrial [ ]
Test Well [ ]
Municipal [ ]
Other Agricultural [X]
(Describe)

(5) EQUIPMENT:
Rotary [X] Mud Reverse [ ]
Cable [ ] Air [ ]
Other [ ] Bucket [ ]

(6) GRAVEL PACK:
Yes [X] No [ ] Size 5/16"x #16
Diameter of bore 24
Packed from 23yds ft. to ft.

(7) CASING INSTALLED:
Steel [X] Plastic [X] Concrete [ ]

From ft.	To ft.	Dia. in.	Gage or Wall
0	22	20	.250
0	262	15.3	DR18
		ø.d.	

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
65	112	.057
122	194	"
214	233	"
245	254	"

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 20 ft.
Were strata sealed against pollution? Yes [ ] No [X] Interval _____ ft.
Method of sealing Cement grout

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion 68.75 ft.

(11) WELL TESTS:
Was well test made? Yes [X] No [ ] If yes, by whom? R. Anderson
Type of test Pump [ ] Bailer [ ] Air lift [ ]
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge 1800+ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes [X] No [X] If yes, by whom? _____
Was electric log made Yes [ ] No [ ] If yes, attach copy to this report

(12) WELL LOG: Total depth _____ ft. Completed depth 260 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	24	Loose Boulders, sand & gravel
24	30	Boulders hard drilling
30	46'6"	Sand & gravel & boulders
46'6"	60	Sand-clay small rock
60	118	Sand w/streaks of clay & small rock Fairly smooth drilling
118	120	Dand & gravel
120	143	Boulders-gravel & sand-rough
143	175	Sand & gravel small rock
175	190	Sand-gravel w/clay
190	200	sand & gravel
200	202	Rough boulders
202	240	Cemented rock
240	267	hard rock rough drilling
267	290	Hard rock relativley smooth

Work started 5/5 19 90 Completed 7/6 19 90

WELL DRILLER'S STATEMENT:

[redacted]

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. [redacted]

Date Work Began 5-8-03, Ended 5-16-03

Local Permit Agency DEH

Permit No. [redacted] Permit Date 5-6-03

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer To Instruction Pamphlet
No. 0903435

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD Rotary FLUID Gel

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	7	Alluvial fill - silty sand
7	16	Coarse Sand with boulders
16	58	Coarse sand - small boulders grey color
58	96	Coarse brown sand
96	123	Decomposed granite
123	126	Bedrock granite

TOTAL DEPTH OF BORING 126 (Feet)
TOTAL DEPTH OF COMPLETED WELL 107 (Feet)

WELL OWNER

WELL LOCATION

Address 5851 Glenair Way
City Pauma Valley
County San Diego
APN Book 133 Page 420 Parcel 04
Township 10S Range 1W Section 27
Lat ___ DEG. ___ MIN. ___ SEC. N
Long ___ DEG. ___ MIN. ___ SEC. W

LOCATION SKETCH

[redacted]

NORTH

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL

MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)

___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
X Irrigation ___ Industrial

___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 65 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 53 (Ft.) & DATE MEASURED 5/16/03
ESTIMATED YIELD * 200 (GPM) & TEST TYPE pump
TEST LENGTH 8 (Hrs.) TOTAL DRAWDOWN 50 (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	20	32	X				Steel A53	23.5	.250	
20	57	24	X				Steel A53	13.5	.377	
57	97	24		X			SS 304	13.5	.377	.060
97	107	24	X				Steel A53	13.5	.377	

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	X			
20	107				4X8

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
X Other SITE MAP

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

[redacted]

DWR 188 REV. 05-03

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OSP 03 78836

10S 01W 27A001S

[redacted]

ORIGINAL
File with DWR

WATER WELL DRILLERS REPORT

(Sections 7079, 7080, 7081, 7082, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Do Not Fill In

No 39856

State Well No. 10S/01W-27A01 S

Other Well No.

9

(1) OWNER:

N
A

(2) LOCATION OF WELL:

[redacted]

(3) TYPE OF WORK *(check)*:

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE *(check)*:

Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐
Cable ☒
Other ☐

(6) CASING INSTALLED:

STEEL: OTHER:
SINGLE ☒ DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall
0	288	16"	1/4"
288	320	14"	1/4
320	325	12"	1/4

If gravel packed

Diameter of Bore	From ft.	To ft.
18"	0	288

Size of shoe or well ring: 1/16/16 Size of gravel: 1/2"

Describe joint: Welded

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen: Mills Knife, Machine cut & Torch cut.

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
Mills 120	275	6	1	3/16" x 2 1/2
Mach. Cut 275	369	8	3	3/16" x 2 1/2
Torch 355	440	4	1	3/16 x 6

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☐ No ☒ To what depth ft.

Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing

(9) WATER LEVELS:

Depth at which water was first found, if known 130 ft.

Standing level before perforating, if known 120 ft.

Standing level after perforating and developing 120 ft.

(10) WELL TESTS: Orange Co. Pump Co.

Was pump test made? Yes ☒ No ☐ If yes, by whom?

1340 gal./min. with 149 ft. drawdown after 8 hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth drilled 440 ft. Depth of completed well 443 ft.

Formations: *Describe by color, character, size of material, and structure*

0 ft. to 150 ft.		Grey, Alluvial Sand & Boulders
150	220	Grey, Alluvial Sand & Gravel & Boulders Partly gs. Cemented.
220	230	Grey Boulders
230	240	Grey Alluvial Sand Gravel & Boulders.
240	298	Grey Aluvial Cemented Sand Gravel & Cobbles.
298	315	Grey Boulder
315	395	Grey Alluvial Cemented Sand, & pebbles,
395	423	Grey to green Granite Gneiss Fractured.
423	440	Grey to green Solid Granite Gneiss.

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325 to 369 14" X 1/4

355 to 440 10 X 1/4

Work started 1/8/66 19 , Completed 4/14 19 66

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[redacted]

SKETCH LOCATION OF WELL ON REVERSE SIDE

DWR 188 (REV. 9-65)

56391-950 10-65 50M TRIP ① △ OSP

10S 01W 35Q001S

ORIGINAL

File with DWR

[redacted] of Intent No.

Local Permit No. or Date

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 158293

State Well No. 10S/1W-35Q1

Other Well No.

(1)
Addre
City

(2) LOCATION OF WELL [redacted]

[redacted]

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☒
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(12) WELL LOG: Total depth 123 ft. Depth of completed well 123 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
		Alluvial fill as follows
0	5	fine grained sand and silt
5	19	fine to coarse sand
19	20	boulder
20	49	fine to coarse sand
49	70	large boulders, grenetic
70	90	fine to coarse sand
90	119	fine to coarse sand (partly cemented)
		with some 24" dia boulders
119	123	Hard rock

NOT FOR PUBLIC USE
WATER CODE SEC. 13752

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size 5/16x16
Diameter of bore 20
Packed from 50 to 123 ft.

(7) CASING INSTALLED:
Steel ☒ Plastic ☐ Concrete ☐

(8) PERFORATIONS: Louvre
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	50	20	.250	50	120	3/32
0	123	12	.250			

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 50 ft.
Were strata sealed against pollution? Yes ☐ No ☒ Interval ft.
Method of sealing Cementing

(10) WATER LEVELS:
Depth of first water, if known 35 ft.
Standing level after well completion 25 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? Same
Type of test Pump ☒ Bailer ☐ Air lift ☐
Depth to water at start of test 25 ft. drawdown to 78 ft
[redacted]arge 660 gal/min after 8 hours Water temperature ukn
[redacted]ical analysis made? Yes ☐ No ☒ If yes, by whom?
Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

Work started October 1984 Completed 11/1 1984

WELL DRILLER'S STATEMENT:

[redacted]

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL JAN 31 1980

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in
No. 127737

Notice of Intent No. [redacted]
Permit No. or Date 12/6/79

State Well No.
Other Well No.

(2) LOCATION OF WELL (See instructions):

[redacted]

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☒
Irrigation ☒
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☒
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size 3/8
Diameter of bore 10
Packed from 67 ft. to 127 ft.

(7) CASING INSTALLED:
Steel ☒ Plastic ☐ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	127	8 5/8	.250

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
67	127	1/16x 2½ dbl. saw

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 50 ft.
Were strata sealed against pollution? Yes ☐ No ☐ Interval ft.
Method of sealing cement grout

(10) WATER LEVELS:
Depth of first water, if known 58-60 ft.
Standing level after well completion ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? driller
Type of test Pump ☐ Bailer ☐ Air lift ☒
Depth to water at start of test ft. At end of test ft.
Discharge 60 gal/min after 1 hours Water temperature
Chemical analysis made? Yes ☒ No ☐ If yes, by whom? Ag. Dept.
Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 312 ft. Depth of completed well 312 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	58	DG, overburden
58	62	broken rock w/pink granite
		Frac.@ 58-60 w/10 gpm
62	87	Blk/white granite w/frac.
		zone @ 68-70 w/40+ GPM
87	112	Blk/white granite granulated
112	137	dark blk/white granite
137	162	" " " " w/clay
		layer @ 141
162	187	dark blk/white granite
187	212	md.hard blk/white granite
212	237	blk/white granite
237	262	blk/white granite
262	287	blk/white granite w/frac. @ 282;frac.@286 w/blk.streak
287	312	blk/white granite
		Air Lift flow test @ 150' -60 gpm
		Air Lift flow test @ 125' -60gpm
		Air Lift flow test @ 100' -58gpm

Work started 12/6 19 79 Completed 12/11 19 79

[redacted]

DO NOT FOR PUBLIC USE
WELL DRILLING
WATER CODE SEC. 13752

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in

No. 207210

Intent No._____

Local Permit No. or Date_____

State Well No._____

Other Well No._____

(2) LOCATION OF WELL [redacted]

(3) TYPE OF WORK:
New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic [ ]
Irrigation [X]
Industrial [ ]
Test Well [ ]
Stock [ ]
Municipal [ ]
Other [ ]

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary [X] Reverse [ ]
Cable [ ] Air [X]
Other [ ] Bucket [ ]

(6) GRAVEL PACK:
Yes [ ] No [X] Size
Diameter of bore_____
Packed from_____ ft. to_____ ft.

(7) CASING INSTALLED:
Steel [X] Plastic [ ] Concrete [ ]

From ft.	To ft.	Dia. in.	Gage or Wall
0	90	8"	.188
0	132	6	.188

(8) PERFORATIONS: none
Type of perforation or size of screen

From ft.	To ft.	Slot size

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 132 ft.
Were strata sealed against pollution? Yes [ ] No [X] Interval_____ ft.
Method of sealing Cemented and cased

(10) WATER LEVELS:
Depth of first water, if known 12 ft.
Standing level after well completion 8 ft.

(11) WELL TESTS:
Was well test made? Yes [X] No [ ] If yes, by whom? same
Type of test Pump [X] Bailer [ ] Air lift [ ]
Depth to water at start of test 8 ft. drawdown to 120 ft
Yield 155 gal/min after 50 hours Water temperature ukn
Chemical analysis made? Yes [ ] No [X] If yes, by whom? TDS 450PPM
Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

(12) WELL LOG: Total depth_____ ft. Depth of completed well_____ ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	80	alluvial fill consisting of fine to coarse sand and gravel with some large boulders
80	125	boulders embedded in softer, weathered rock
125	132	semi hard rock, grentic - grey color
132	505	hard rock, grenetic with some fracturing - overall color - grey

Work started 10-5- 1986 Completed 10-17- 1986

WELL DRILLER'S STATEMENT:

[redacted]

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 4

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 455397

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. [redacted]
Date Work Began 11/8/95 , Ended 11/18/95
Local Permit Agency San Diego Co Health Dept
Permit No. [redacted] Permit Date 11/3/95

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Installed 8" Steel Casing to Surface
	Seal to 20' 8" Cemented
0 8	Topsoil + fill
8 16	D. G.
16 35	Hard Black + White Granite
35 365	CHERT, Quartz, Very little Qorite
365 400	B + W Granite first water @ 370 1560PM
400 615	Chert, Quartz Very hard
615 645	Black, Extremely hard Granite
645 720	Chert, Quartz hard
720 745	Black Extremely Hard
745 835	Chert, Quartz Hard

TOTAL DEPTH OF BORING 835 (Feet)
TOTAL DEPTH OF COMPLETED WELL 835 (Feet)

WELL OWNER

[redacted]

WELL LOCATION

[redacted]

Township 10S Range 2W Section 13
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

[redacted]

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
X Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Air Rotary FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 75 (Ft.) & DATE MEASURED 11/18/95
ESTIMATED YIELD* 15 (GPM) & TEST TYPE Air lift
TEST LENGTH ½ (Hrs.) TOTAL DRAWDOWN — (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 20'8"	12	X				Steel	8	.188	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0 20'8"	X			

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

[redacted]

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL

le with DWR

[redacted]

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 126791

State Well No. _____

Other Well No. _____

[redacted]

ownship 9SD Range 2W Section 27 -P2

[redacted]

(12) WELL LOG: Total depth 147 ft. Depth of completed well 144 ft.

from ft.	to ft.	Formation (Describe by color, character, size of material)
0	20	top soil
20	26	coarse sand and rock chips
26	27	fine dark sand
27	32	coarse light sand a little silt & clay
32	48	fine to coarse sand streaks
48	65	coarse sand and gravel
65	69	large coarse gravel, coarse sand
69	75	rock chips and boulders
75	83	boulders & medium size sand
85	87	sand
87	92	coarse sand, gravel and cobbles
92	100	small boulders
100	104	cobbles and sand
104	115	coarse sand, gravel and cobbles
115	126	medium cobbles, sand &coarse gravel
126	130	small boulders and some clay
130	134	gravel and sand
134	138	small boulders
138	139	gravel and sand
139	147	small bboulders, gravel and sand

4

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☒
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

WELL LOCATION SKETCH

5) EQUIPMENT:
dary ☐ Reverse ☒
able ☐ Air ☐
ther ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size 3/8" minus
Diameter of bore 24"
Packed from 0 to 144 ft.

7) CASING INSTALLED:
eel ☒ Plastic ☐ Concrete ☐

(8) PERFORATIONS: Moss Louvre
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	144	14"	5/16"	44	144	1/8"

9) WELL SEAL:
as surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 45 ft.
ere strata sealed against pollution? Yes ☐ No ☒ Interval _____ ft.
ethod of sealing 9 sack grout mix

Work started July 19 19 78 Completed Sept. 23 19 78

10) WATER LEVELS:
epth of first water, if known 12 ft.
tanding level after well completion 12 ft.

[redacted]

11) WELL TESTS:
as well test made? Yes ☒ No ☐ If yes, by whom? Beylik Drilli
ype of test Pump ☒ Bailer ☐ Air lift ☐
epth to water at start of test 12 ft. At end of test 12 ft.
ischarge 700 gal/min after 18 hours Water temperature 69°
hemical analysis made? Yes ☐ No ☒ If yes, by whom? _____
as electric log made? Yes ☐ No ☒ If yes, attach copy to this report

DWR 188 (REV 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

APPENDIX 3B

Water Quality Laboratory Analyses:

Upper San Luis Rey Sub-Basin Initial Monitoring Network

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Analytical Report: Page 1 of 16
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1C3245-01	MW5	Water	03/24/21 10:15	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-02	MW1	Water	03/24/21 11:10	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-03	MW4	Water	03/24/21 11:56	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-04	MW4	Water	03/24/21 12:01	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-05	MW6	Water	03/24/21 13:00	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-06	MW30	Water	03/24/21 14:34	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-07	MW29	Water	03/24/21 15:10	Allison O'Neal	03/25/21 11:10	GLS
C1C3245-08	MW27	Water	03/24/21 14:00	Allison O'Neal	03/25/21 11:10	GLS

One or more samples on this workorder did not meet sample temperature requirements per TNI standard 2009/2016. Client granted permission to continue with the analysis.

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW5	Water	03/24/21 10:15	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	6.3	1.0	mg/L	EPA 200.7	03/29/21 18:10	HRL	N_pFilt
Sodium-Dissolved	52	1.0	mg/L	EPA 200.7	03/29/21 18:10	HRL	N_pFilt
Calcium-Dissolved	120	1.0	mg/L	EPA 200.7	03/29/21 18:10	HRL	N_pFilt
Total Hardness	500	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:09	HRL	
Calcium	130	1.0	mg/L	EPA 200.7	03/29/21 18:09	HRL	
Magnesium	41	1.0	mg/L	EPA 200.7	03/29/21 18:09	HRL	
Anions							
Nitrate as N	32	0.20	mg/L	EPA 300.0	03/25/21 18:31	KJN	.MCNotifya
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 18:31	KJN	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	03/26/21 16:45	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 18:31	KJN	
Chloride-Dissolved	130	1.0	mg/L	EPA 300.0	03/26/21 16:45	KJN	
Nitrate/Nitrite as N	32	0.20	mg/L	EPA 300.0	03/25/21 18:31	KJN	
Aggregate Properties							
Specific Conductance	1200	1.0	umhos/cm	SM 2510 B	04/05/21 09:45	BZB	
Solids							
Total Dissolved Solids	760	20	mg/L	SM 2540C	03/30/21 12:55	AMB	
General Inorganics							
Perchlorate	6.1	4.0	ug/L	EPA 314.0	03/26/21 16:19	KBS	.MCNotify
Nutrients							
Total Dissolved Phosphorus	0.063	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW5	Water	03/24/21 10:15	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:02	AJH	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:10	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:10	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:09	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:40	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:35	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:40	AJH	

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	03/24/21 11:10	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Calcium-Dissolved	63	1.0	mg/L	EPA 200.7	03/29/21 18:14	HRL	N_pFilt
Sodium-Dissolved	35	1.0	mg/L	EPA 200.7	03/29/21 18:14	HRL	N_pFilt
Potassium-Dissolved	5.8	1.0	mg/L	EPA 200.7	03/29/21 18:14	HRL	N_pFilt
Total Hardness	240	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:12	HRL	
Calcium	65	1.0	mg/L	EPA 200.7	03/29/21 18:12	HRL	
Magnesium	19	1.0	mg/L	EPA 200.7	03/29/21 18:12	HRL	
Anions							
Nitrate as N	9.3	0.20	mg/L	EPA 300.0	03/25/21 19:14	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 19:14	KJN	
Sulfate-Dissolved	95	0.50	mg/L	EPA 300.0	03/26/21 16:58	KJN	
Chloride-Dissolved	51	1.0	mg/L	EPA 300.0	03/26/21 16:58	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 19:14	KJN	
Nitrate/Nitrite as N	9.3	0.20	mg/L	EPA 300.0	03/25/21 19:14	KJN	
Aggregate Properties							
Specific Conductance	620	1.0	umhos/cm	SM 2510 B	04/05/21 09:46	BZB	
Solids							
Total Dissolved Solids	400	10	mg/L	SM 2540C	03/30/21 12:55	AMB	
General Inorganics							
Perchlorate	ND	4.0	ug/L	EPA 314.0	03/26/21 16:36	KBS	
Nutrients							
Total Dissolved Phosphorus	0.075	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	

Client Name: SCS Engineers
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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	03/24/21 11:10	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:14	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:05	AJH	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:14	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:12	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:51	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:36	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:51	AJH	

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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	03/24/21 11:56	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	58	1.0	mg/L	EPA 200.7	03/29/21 18:17	HRL	N_pFilt
Calcium-Dissolved	140	1.0	mg/L	EPA 200.7	03/29/21 18:17	HRL	N_pFilt
Potassium-Dissolved	6.6	1.0	mg/L	EPA 200.7	03/29/21 18:17	HRL	N_pFilt
Total Hardness	570	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:16	HRL	
Calcium	150	1.0	mg/L	EPA 200.7	03/29/21 18:16	HRL	
Magnesium	48	1.0	mg/L	EPA 200.7	03/29/21 18:16	HRL	
Anions							
Nitrate as N	21	0.20	mg/L	EPA 300.0	03/25/21 19:30	KJN	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 19:30	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 19:30	KJN	
Chloride-Dissolved	160	1.0	mg/L	EPA 300.0	03/27/21 02:14	KJN	
Sulfate-Dissolved	200	0.50	mg/L	EPA 300.0	03/27/21 02:14	KJN	
Nitrate/Nitrite as N	21	0.20	mg/L	EPA 300.0	03/25/21 19:30	KJN	
Aggregate Properties							
Specific Conductance	1300	1.0	umhos/cm	SM 2510 B	04/05/21 09:48	BZB	
Solids							
Total Dissolved Solids	850	20	mg/L	SM 2540C	03/30/21 12:55	AMB	
General Inorganics							
Perchlorate	4.9	4.0	ug/L	EPA 314.0	03/26/21 17:20	KBS	
Nutrients							
Total Dissolved Phosphorus	0.057	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	

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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	03/24/21 11:56	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:17	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:07	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:17	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:16	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:53	AJH	
Total Chromium	1.2	1.0	ug/L	EPA 200.8	04/06/21 10:37	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:53	AJH	

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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	03/24/21 12:01	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	6.9	1.0	mg/L	EPA 200.7	03/29/21 18:26	HRL	N_pFilt
Calcium-Dissolved	150	1.0	mg/L	EPA 200.7	03/29/21 18:26	HRL	N_pFilt
Sodium-Dissolved	58	1.0	mg/L	EPA 200.7	03/29/21 18:26	HRL	N_pFilt
Total Hardness	580	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:24	HRL	
Calcium	150	1.0	mg/L	EPA 200.7	03/29/21 18:24	HRL	
Magnesium	49	1.0	mg/L	EPA 200.7	03/29/21 18:24	HRL	
Anions							
Nitrate as N	21	0.20	mg/L	EPA 300.0	03/25/21 19:43	KJN	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 19:43	KJN	
Sulfate-Dissolved	210	0.50	mg/L	EPA 300.0	03/27/21 02:54	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 19:43	KJN	
Chloride-Dissolved	160	1.0	mg/L	EPA 300.0	03/27/21 02:54	KJN	
Nitrate/Nitrite as N	21	0.20	mg/L	EPA 300.0	03/25/21 19:43	KJN	
Aggregate Properties							
Specific Conductance	1300	1.0	umhos/cm	SM 2510 B	04/05/21 09:50	BZB	
Solids							
Total Dissolved Solids	840	20	mg/L	SM 2540C	03/30/21 12:55	AMB	
General Inorganics							
Perchlorate	4.7	4.0	ug/L	EPA 314.0	03/26/21 17:36	KBS	
Nutrients							
Total Dissolved Phosphorus	0.060	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	

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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	03/24/21 12:01	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:26	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:26	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:09	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:24	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:55	AJH	
Total Chromium	1.1	1.0	ug/L	EPA 200.8	04/06/21 10:38	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:55	AJH	

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Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW6	Water	03/24/21 13:00	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	65	1.0	mg/L	EPA 200.7	03/29/21 18:29	HRL	N_pFilt
Calcium-Dissolved	100	1.0	mg/L	EPA 200.7	03/29/21 18:29	HRL	N_pFilt
Potassium-Dissolved	4.7	1.0	mg/L	EPA 200.7	03/29/21 18:29	HRL	N_pFilt
Total Hardness	430	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:27	HRL	
Calcium	110	1.0	mg/L	EPA 200.7	03/29/21 18:27	HRL	
Magnesium	39	1.0	mg/L	EPA 200.7	03/29/21 18:27	HRL	
Anions							
Nitrate as N	3.4	0.20	mg/L	EPA 300.0	03/25/21 19:56	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 19:56	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 19:56	KJN	
Chloride-Dissolved	130	1.0	mg/L	EPA 300.0	03/27/21 03:07	KJN	
Sulfate-Dissolved	230	0.50	mg/L	EPA 300.0	03/27/21 03:07	KJN	
Nitrate/Nitrite as N	3.4	0.20	mg/L	EPA 300.0	03/25/21 19:56	KJN	
Aggregate Properties							
Specific Conductance	1000	1.0	umhos/cm	SM 2510 B	04/05/21 09:51	BZB	
Solids							
Total Dissolved Solids	680	10	mg/L	SM 2540C	03/30/21 12:55	AMB	
Nutrients							
Total Dissolved Phosphorus	0.055	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:29	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:11	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:29	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:27	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:57	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:39	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:57	AJH	

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Client Name: SCS Engineers
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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-06

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW30	Water	03/24/21 14:34	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	37	1.0	mg/L	EPA 200.7	03/29/21 18:33	HRL	N_pFilt
Potassium-Dissolved	4.5	1.0	mg/L	EPA 200.7	03/29/21 18:33	HRL	N_pFilt
Calcium-Dissolved	42	1.0	mg/L	EPA 200.7	03/29/21 18:33	HRL	N_pFilt
Total Hardness	170	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:31	HRL	
Calcium	43	1.0	mg/L	EPA 200.7	03/29/21 18:31	HRL	
Magnesium	14	1.0	mg/L	EPA 200.7	03/29/21 18:31	HRL	
Anions							
Nitrate as N	4.2	0.20	mg/L	EPA 300.0	03/25/21 20:09	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 20:09	KJN	
Chloride-Dissolved	37	1.0	mg/L	EPA 300.0	03/27/21 03:20	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 20:09	KJN	
Sulfate-Dissolved	73	0.50	mg/L	EPA 300.0	03/27/21 03:20	KJN	
Nitrate/Nitrite as N	4.2	0.20	mg/L	EPA 300.0	03/25/21 20:09	KJN	
Aggregate Properties							
Specific Conductance	470	1.0	umhos/cm	SM 2510 B	04/05/21 09:53	BZB	
Solids							
Total Dissolved Solids	310	10	mg/L	SM 2540C	03/30/21 12:55	AMB	
Nutrients							
Total Dissolved Phosphorus	0.057	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:33	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:13	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:33	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:31	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 19:59	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:40	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 19:59	AJH	

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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-07

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW29	Water	03/24/21 15:10	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	43	1.0	mg/L	EPA 200.7	03/29/21 18:37	HRL	N_pFilt
Potassium-Dissolved	ND	1.0	mg/L	EPA 200.7	03/29/21 18:37	HRL	N_pFilt
Calcium-Dissolved	ND	1.0	mg/L	EPA 200.7	03/29/21 18:37	HRL	N_pFilt
Total Hardness	ND	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:34	HRL	
Calcium	ND	1.0	mg/L	EPA 200.7	03/29/21 18:34	HRL	
Magnesium	ND	1.0	mg/L	EPA 200.7	03/29/21 18:34	HRL	
Anions							
Nitrate as N	ND	0.20	mg/L	EPA 300.0	03/25/21 20:22	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 20:22	KJN	
Sulfate-Dissolved	2.7	0.50	mg/L	EPA 300.0	03/27/21 03:33	KJN	
Chloride-Dissolved	15	1.0	mg/L	EPA 300.0	03/27/21 03:33	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 20:22	KJN	
Nitrate/Nitrite as N	ND	0.20	mg/L	EPA 300.0	03/25/21 20:22	KJN	
Aggregate Properties							
Specific Conductance	210	1.0	umhos/cm	SM 2510 B	04/05/21 09:55	BZB	
Solids							
Total Dissolved Solids	120	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	450	100	ug/L	EPA 200.7	03/29/21 18:37	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:15	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:37	HRL	N_pFilt
Aluminum	82	50	ug/L	EPA 200.7	03/29/21 18:34	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 20:02	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 11:15	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 20:02	AJH	

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Client Name: SCS Engineers
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Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Laboratory Reference Number

C1C3245-08

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW27	Water	03/24/21 14:00	03/25/21 11:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Calcium-Dissolved	89	1.0	mg/L	EPA 200.7	03/29/21 18:41	HRL	N_pFilt
Potassium-Dissolved	4.4	1.0	mg/L	EPA 200.7	03/29/21 18:41	HRL	N_pFilt
Sodium-Dissolved	53	1.0	mg/L	EPA 200.7	03/29/21 18:41	HRL	N_pFilt
Total Hardness	320	3.0	mg/L	SM 2340B/EPA 200.7	03/29/21 18:39	HRL	
Calcium	92	1.0	mg/L	EPA 200.7	03/29/21 18:39	HRL	
Magnesium	22	1.0	mg/L	EPA 200.7	03/29/21 18:39	HRL	
Anions							
Nitrate as N	4.7	0.20	mg/L	EPA 300.0	03/25/21 20:36	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/25/21 20:36	KJN	
Sulfate-Dissolved	200	0.50	mg/L	EPA 300.0	03/27/21 03:46	KJN	
Chloride-Dissolved	58	1.0	mg/L	EPA 300.0	03/27/21 03:46	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/25/21 20:36	KJN	
Nitrate/Nitrite as N	4.7	0.20	mg/L	EPA 300.0	03/25/21 20:36	KJN	
Aggregate Properties							
Specific Conductance	800	1.0	umhos/cm	SM 2510 B	04/05/21 09:56	BZB	
Solids							
Total Dissolved Solids	530	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:41	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	03/29/21 18:41	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:17	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	03/29/21 18:39	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	03/30/21 20:04	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:46	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/30/21 20:04	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021

Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

Notes and Definitions

.MCNotif	Notified Chuck Houser & Begonia Heffel Via email and voice mail 3/29/21 regarding MCL exceedance
.MCNotif	Notified Chuck Houser and Begonia Heffel via email and voice mail 3/30/21 regarding MCL exceedance
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / ''' :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

KayeLani A. Marshall

cc:

e-Short_No Alias.rpt

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Project Name: Water Sample Analysis - 2021

Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

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(951) 653-3351 • FAX (951) 653-1662
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Chain of Custody & Sample Information Record

Client: SCS Engineers Contact: Chuck Houser Fax No.
Phone No. 858.805.5523 email: CHouser@scsengineers.com
Project Name: San Luis Rey Turn Around Time: (Routine) *72 Hour Rush *48 Hour Rush *24 Hour Rush
Project ~~Location~~ #: 01221001.00 *Lab TAT Approval: By: *Additional Charges Apply

Additional Reporting Requests: Include QC Data Package: ☐ Yes ☐ No; FAX Results: ☐ Yes ☐ No; Email Results: ☐ Yes ☐ No; State EDT: ☐ Yes ☐ No (Include Source Number in Notes)

Sampler Information
Name: Allison ONeal
Employer: SCS Engineers
Signature: [signature]

Analysis Requested: (1) Aluminum, Arsenic, Chromium, Fe, Hardness; (2) Dissolved Boron, Ca, Chloride, Iron, Mn, Nitrite, K, Na, Sulfate, Nitrate+Nitrite, Spec. Cond., Phosphorus, TDS; (3) Perchlorate

Matrix: DW = Drinking Water, WW = Waste Water, GW = Ground Water, S = Source, SG = Sludge, L = Liquid, M = Miscellaneous

Sample ID	Date	Time	Unpreserved	H2SO4	HCl	HNO3	Na2S2O3	NaOH	NaOH/Zn Acetate	NH4Cl	PDC	Total # of Containers	Routine	Resample	Special	Analysis 1	Analysis 2	Analysis 3	Matrix	Notes
MW5	3/24/21	10:15				X										X				
MW5		10:15	X														X	X	x2	
MW1		11:10				X										X				
MW1		11:10	X														X	X	x2	
MW4		11:56				X										X				
MW4		11:56	X														X	X	x2	
MW4 [crossed out]		1201				X										X				
MW4 [crossed out]		12:01	X														X	X	x2	
MW6		1300				X										X				
MW6	↓	1300	X																	

Notes: ·PM emailed client SL; SL 3/25/21

Relinquished By (sign)	Print Name / Company	Date / Time	Received By (sign)	Print Name / Company
[signature]	Allison ONeal/SCS	3/24/21 1646	GLS	GLS
GLS	GLS	3/25/21 1110	RC	Rosemarie Lopez/ESYS

By signing on behalf of your organization and relinquishing this chain of custody you agree to abide by the Babcock Laboratories, Inc. *Terms and Conditions.*

(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria TL #61

Sample(s) Submitted on Ice? (Yes) No
Custody Seal(s) Intact? Yes No (NA)
Sample(s) Intact? (Yes) No
Temperature: 13 °C ☐ Cooler Blank

Sample meets laboratory acceptance criteria? Yes (No)
Permission to continue: Yes No
Deviation/Notes: ANO temp. waiver on file RC
Signature/Date: 3/25/21

C1C3245
Rc'd: 03/25/2021 11:10
SNL

Rev. 6/18

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Apr-2021

Analytical Report: Page 16 of 16
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3245

Received on Ice (Y/N): No Temp: 13 °C

ESB

~~AMERICAN SCIENTIFIC LABORATORIES, LLC~~
Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Page 2 Of 2

COC# No. 88348 GLOBAL ID _____ E REPORT: ☒ PDF ☐ EDF ☐ EDD ASL JOB# _____

CHAIN OF CUSTODY RECORD

Company: SCS	Report To:	ANALYSIS REQUESTED
Address:	Project Name: San Luis Rey / Address:	
Telephone: / Fax: See page	Site Address: / Invoice To: / Address:	
Special Instruction:	Project ID: 01221001.00	
E-mail:	Project Manager: / P.O.#:	

Al, Ar, Ch, Zn, Hardness; Dissolved Boron, Ca, Chloride, Iron, Mg, Nitrite, K, Na, Sr, Nitrate+Nitrite, Spec cond, Phosphorus, TDS

ITEM	LAB USE ONLY Lab ID	SAMPLE DESCRIPTION Sample ID	Date	Time	Container(s) #	Type	Matrix	Preservation		Remarks
		MW30	3/24/21	1434	1	plastic	groundwater (GW)	HNO_3	X	
		MW30		1434	1			ice		
		MW29		1510	1			HNO_3	X	
		MW29		1510	1			ice		
		MW27		1400	1			HNO_3	X	
		MW27		1400	1					

C1C3245
Rc'd: 03/25/2021 11:10
SNL

Collected By:	Date 3/24/21	Time 1653	Relinquished By: GLS	Date 3/25/21	Time 1000	TAT ☒ Normal ☐ Rush
Relinquished By:	Date 3/24/21	Time 1653	Received For Laboratory ROSEMARIE COPOC	Date 3/25/21	Time 1110	
Received By: GLS	Date 3/25/21	Time 1000	Condition of Sample:			

White - Report. Yellow - Laboratory. Pink - Client

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

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CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BABCOCK Laboratories, Inc.
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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Analytical Report: Page 1 of 12
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1C3353-01	MW2	Water	03/25/21 09:33	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-02	MW25	Water	03/25/21 10:47	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-03	MW12	Water	03/25/21 11:50	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-04	MW9	Water	03/25/21 12:32	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-05	MW9	Water	03/25/21 12:35	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-06	MW22	Water	03/25/21 14:04	Allison O'Neal	03/26/21 11:47	GLS
C1C3353-07	MW21	Water	03/25/21 14:56	Allison O'Neal	03/26/21 11:47	GLS

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

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CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BABCOCK Laboratories, Inc.
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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW2	Water	03/25/21 09:33	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	6.9	2.0	mg/L	EPA 200.7	04/01/21 18:24	AZP	N_pFilt
Sodium-Dissolved	43	2.0	mg/L	EPA 200.7	04/01/21 18:24	AZP	N_pFilt
Calcium-Dissolved	75	2.0	mg/L	EPA 200.7	04/01/21 18:24	AZP	N_pFilt
Total Hardness	270	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 18:24	AZP	
Calcium	89	1.0	mg/L	EPA 200.7	04/01/21 17:10	AZP	
Magnesium	24	1.0	mg/L	EPA 200.7	04/01/21 17:10	AZP	
Anions							
Nitrate as N	8.7	0.20	mg/L	EPA 300.0	03/26/21 18:54	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 18:54	KJN	
Chloride-Dissolved	81	1.0	mg/L	EPA 300.0	03/26/21 19:07	KJN	
Sulfate-Dissolved	130	0.50	mg/L	EPA 300.0	03/26/21 19:07	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 19:07	KJN	
Nitrate/Nitrite as N	8.7	0.20	mg/L	EPA 300.0	03/26/21 18:54	KJN	
Aggregate Properties							
Specific Conductance	790	1.0	umhos/cm	SM 2510 B	04/06/21 13:56	BZB	
Solids							
Total Dissolved Solids	490	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	0.055	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:28	AJH	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:24	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:24	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 18:24	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 18:49	AJH	
Total Chromium	2.4	1.0	ug/L	EPA 200.8	04/06/21 10:49	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 18:49	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW25	Water	03/25/21 10:47	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	78	2.0	mg/L	EPA 200.7	04/01/21 18:26	AZP	N_pFilt
Potassium-Dissolved	2.6	2.0	mg/L	EPA 200.7	04/01/21 18:26	AZP	N_pFilt
Calcium-Dissolved	33	2.0	mg/L	EPA 200.7	04/01/21 18:26	AZP	N_pFilt
Total Hardness	96	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:17	AZP	
Calcium	34	1.0	mg/L	EPA 200.7	04/01/21 17:17	AZP	
Magnesium	2.6	1.0	mg/L	EPA 200.7	04/01/21 17:17	AZP	
Anions							
Nitrate as N	1.6	0.20	mg/L	EPA 300.0	03/26/21 19:20	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 19:20	KJN	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	03/26/21 19:33	KJN	
Chloride-Dissolved	33	1.0	mg/L	EPA 300.0	03/26/21 19:33	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 19:33	KJN	
Nitrate/Nitrite as N	1.6	0.20	mg/L	EPA 300.0	03/26/21 19:20	KJN	
Aggregate Properties							
Specific Conductance	590	1.0	umhos/cm	SM 2510 B	04/06/21 12:10	BZB	
Solids							
Total Dissolved Solids	340	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:30	AJH	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:26	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:26	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:17	AZP	NLOhND
Arsenic	4.1	2.0	ug/L	EPA 200.8	03/31/21 18:59	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:50	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 18:59	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW12	Water	03/25/21 11:50	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	120	2.0	mg/L	EPA 200.7	04/01/21 18:28	AZP	N_pFilt
Potassium-Dissolved	5.8	2.0	mg/L	EPA 200.7	04/01/21 18:28	AZP	N_pFilt
Calcium-Dissolved	180	2.0	mg/L	EPA 200.7	04/01/21 18:28	AZP	N_pFilt
Total Hardness	780	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:19	AZP	
Calcium	190	1.0	mg/L	EPA 200.7	04/01/21 17:19	AZP	
Magnesium	73	1.0	mg/L	EPA 200.7	04/01/21 17:19	AZP	
Anions							
Nitrate as N	2.8	0.20	mg/L	EPA 300.0	03/26/21 19:46	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 19:46	KJN	
Sulfate-Dissolved	560	2.5	mg/L	EPA 300.0	03/27/21 10:12	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 20:57	KJN	
Chloride-Dissolved	260	5.0	mg/L	EPA 300.0	03/27/21 10:12	KBS	
Nitrate/Nitrite as N	2.8	0.20	mg/L	EPA 300.0	03/26/21 19:46	KJN	
Aggregate Properties							
Specific Conductance	1900	1.0	umhos/cm	SM 2510 B	04/06/21 13:58	BZB	
Solids							
Total Dissolved Solids	1400	20	mg/L	SM 2540C	03/30/21 14:57	AMB	
General Inorganics							
Perchlorate	ND	4.0	ug/L	EPA 314.0	03/29/21 21:27	KL	NCALhND
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW12	Water	03/25/21 11:50	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:28	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:28	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:32	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:19	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 19:01	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:52	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 19:01	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW9	Water	03/25/21 12:32	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	3.8	2.0	mg/L	EPA 200.7	04/01/21 18:30	AZP	N_pFilt
Calcium-Dissolved	70	2.0	mg/L	EPA 200.7	04/01/21 18:30	AZP	N_pFilt
Sodium-Dissolved	52	2.0	mg/L	EPA 200.7	04/01/21 18:30	AZP	N_pFilt
Total Hardness	290	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:21	AZP	
Calcium	74	1.0	mg/L	EPA 200.7	04/01/21 17:21	AZP	
Magnesium	25	1.0	mg/L	EPA 200.7	04/01/21 17:21	AZP	
Anions							
Nitrate as N	2.5	0.20	mg/L	EPA 300.0	03/26/21 21:13	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 21:13	KJN	
Sulfate-Dissolved	150	0.50	mg/L	EPA 300.0	03/26/21 21:26	KJN	
Chloride-Dissolved	83	1.0	mg/L	EPA 300.0	03/26/21 21:26	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 21:26	KJN	
Nitrate/Nitrite as N	2.5	0.20	mg/L	EPA 300.0	03/26/21 21:13	KJN	
Aggregate Properties							
Specific Conductance	820	1.0	umhos/cm	SM 2510 B	04/06/21 12:11	BZB	
Solids							
Total Dissolved Solids	530	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	0.060	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:34	AJH	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:30	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:30	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:21	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 20:34	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:53	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 19:03	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW9	Water	03/25/21 12:35	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	51	2.0	mg/L	EPA 200.7	04/01/21 18:32	AZP	N_pFilt
Potassium-Dissolved	3.7	2.0	mg/L	EPA 200.7	04/01/21 18:32	AZP	N_pFilt
Calcium-Dissolved	70	2.0	mg/L	EPA 200.7	04/01/21 18:32	AZP	N_pFilt
Total Hardness	300	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:23	AZP	
Calcium	75	1.0	mg/L	EPA 200.7	04/01/21 17:23	AZP	
Magnesium	26	1.0	mg/L	EPA 200.7	04/01/21 17:23	AZP	
Anions							
Nitrate as N	2.6	0.20	mg/L	EPA 300.0	03/26/21 21:39	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 21:39	KJN	
Sulfate-Dissolved	150	0.50	mg/L	EPA 300.0	03/26/21 21:52	KJN	
Chloride-Dissolved	84	1.0	mg/L	EPA 300.0	03/26/21 21:52	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 21:52	KJN	
Nitrate/Nitrite as N	2.6	0.20	mg/L	EPA 300.0	03/26/21 21:39	KJN	
Aggregate Properties							
Specific Conductance	800	1.0	umhos/cm	SM 2510 B	04/06/21 12:13	BZB	
Solids							
Total Dissolved Solids	530	10	mg/L	SM 2540C	03/30/21 14:57	AMB	
Nutrients							
Total Dissolved Phosphorus	0.080	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:32	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:36	AJH	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:32	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:23	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 19:06	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:54	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 20:36	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-06

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW22	Water	03/25/21 14:04	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	63	2.0	mg/L	EPA 200.7	04/01/21 18:40	AZP	N_pFilt
Potassium-Dissolved	5.9	2.0	mg/L	EPA 200.7	04/01/21 18:40	AZP	N_pFilt
Calcium-Dissolved	160	2.0	mg/L	EPA 200.7	04/01/21 18:40	AZP	N_pFilt
Total Hardness	630	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:25	AZP	
Calcium	170	1.0	mg/L	EPA 200.7	04/01/21 17:25	AZP	
Magnesium	46	1.0	mg/L	EPA 200.7	04/01/21 17:25	AZP	
Anions							
Nitrate as N	23	0.20	mg/L	EPA 300.0	03/26/21 22:05	KJN	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 22:05	KJN	
Sulfate-Dissolved	380	2.5	mg/L	EPA 300.0	03/27/21 10:52	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 22:19	KJN	
Chloride-Dissolved	180	1.0	mg/L	EPA 300.0	03/26/21 22:19	KJN	
Nitrate/Nitrite as N	23	0.20	mg/L	EPA 300.0	03/26/21 22:05	KJN	
Aggregate Properties							
Specific Conductance	1500	1.0	umhos/cm	SM 2510 B	04/06/21 14:00	BZB	
Solids							
Total Dissolved Solids	1100	20	mg/L	SM 2540C	03/31/21 14:42	AMB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:40	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:38	AJH	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:40	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:25	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 19:08	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 10:55	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 19:08	AJH	

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Laboratory Reference Number

C1C3353-07

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW21	Water	03/25/21 14:56	03/26/21 11:47

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	82	2.0	mg/L	EPA 200.7	04/01/21 18:41	AZP	N_pFilt
Potassium-Dissolved	2.0	2.0	mg/L	EPA 200.7	04/01/21 18:41	AZP	N_pFilt
Calcium-Dissolved	52	2.0	mg/L	EPA 200.7	04/01/21 18:41	AZP	N_pFilt
Total Hardness	190	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:27	AZP	
Calcium	57	1.0	mg/L	EPA 200.7	04/01/21 17:27	AZP	
Magnesium	10	1.0	mg/L	EPA 200.7	04/01/21 17:27	AZP	
Anions							
Nitrate as N	10	0.20	mg/L	EPA 300.0	03/26/21 22:32	KJN	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/26/21 22:32	KJN	
Sulfate-Dissolved	200	0.50	mg/L	EPA 300.0	03/26/21 22:45	KJN	
Chloride-Dissolved	81	1.0	mg/L	EPA 300.0	03/26/21 22:45	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/26/21 22:45	KJN	
Nitrate/Nitrite as N	10	0.20	mg/L	EPA 300.0	03/26/21 22:32	KJN	
Aggregate Properties							
Specific Conductance	810	1.0	umhos/cm	SM 2510 B	04/06/21 14:02	BZB	
Solids							
Total Dissolved Solids	530	10	mg/L	SM 2540C	03/31/21 14:42	AMB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Metals and Metalloids							
Boron-Dissolved	200	200	ug/L	EPA 200.7	04/01/21 18:41	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:41	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	03/31/21 20:40	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:27	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	03/31/21 19:10	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 11:00	AJH	
Zinc	ND	50	ug/L	EPA 200.8	03/31/21 19:10	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Project Name: Water Sample Analysis - 2021

Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

Notes and Definitions

.MCNotif	Notified Chuck Houser & Begonia Heffel Via email and voice mail 3/29/21 regarding MCL exceedance
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
NCALhNI	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, therefore data not impacted.
NLOhND	LCS recovery was above method control limit for this analyte. Analyte not detected, therefore data not impacted.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / ''' :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

KayeLani A. Marshall

cc:

e-Short_No Alias.rpt

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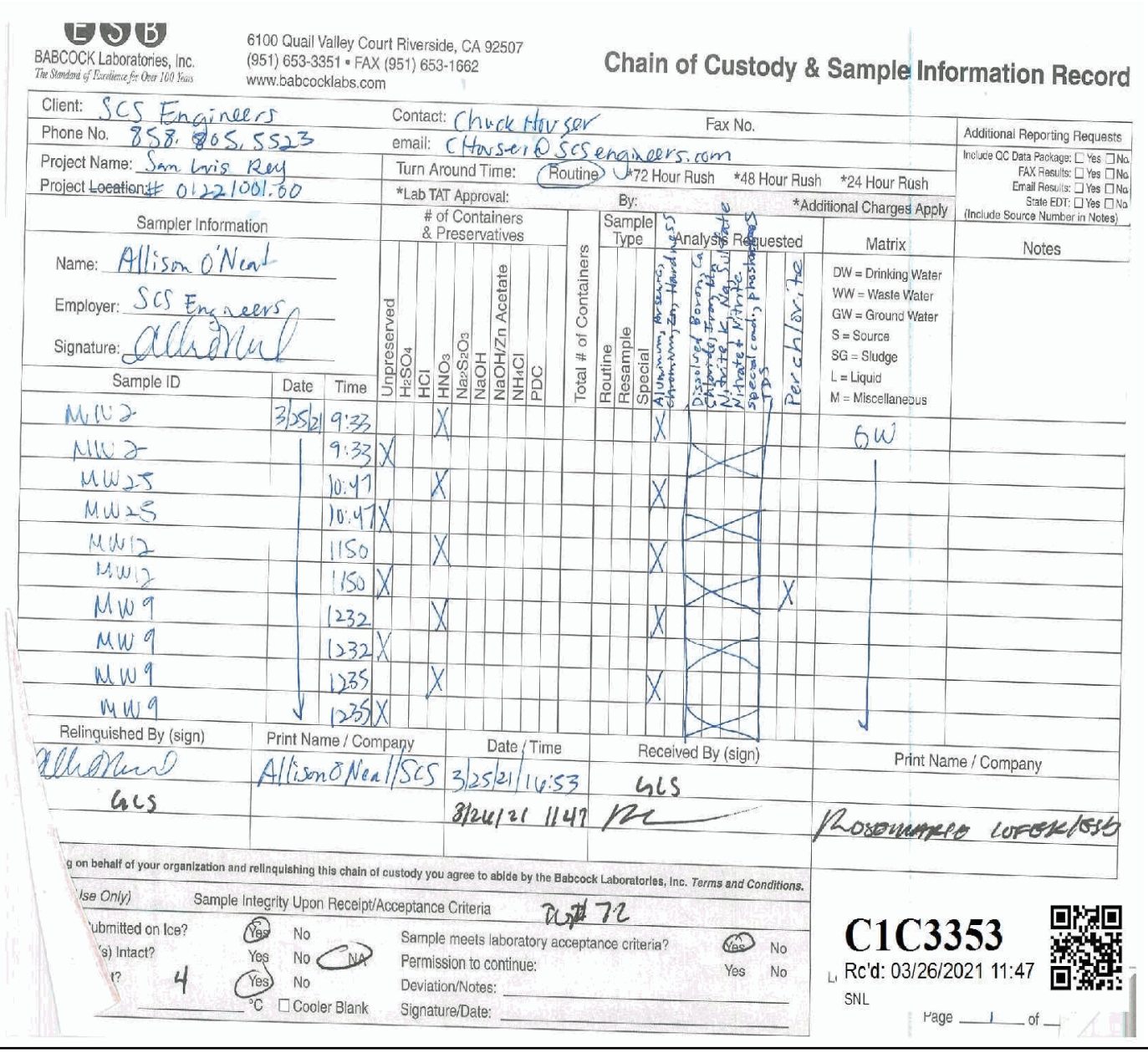
Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Analytical Report: Page 11 of 12
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C



BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years
6100 Quail Valley Court Riverside, CA 92507
(951) 653-3351 • FAX (951) 653-1662
www.babcocklabs.com

Chain of Custody & Sample Information Record

Client: SCS Engineers | Contact: Chuck Houser | Fax No.
Phone No. 858.805.5523 | email: CHouser@SCSengineers.com
Project Name: San Luis Rey | Turn Around Time: (Routine) *72 Hour Rush *48 Hour Rush *24 Hour Rush
Project Location: # 01221001.00 | *Lab TAT Approval: | By: | *Additional Charges Apply

Additional Reporting Requests: Include QC Data Package: ☐ Yes ☐ No; FAX Results: ☐ Yes ☐ No; Email Results: ☐ Yes ☐ No; State EDT: ☐ Yes ☐ No (Include Source Number in Notes)

Sampler Information
Name: Allison O'Neal
Employer: SCS Engineers
Signature: Allison O'Neal

Sample ID	Date	Time	# of Containers & Preservatives: Unpreserved	H_2SO_4	HCl	HNO_3	$Na_2S_2O_3$	NaOH	NaOH/Zn Acetate	NH_4Cl	PDC	Total # of Containers	Sample Type: Routine	Resample	Special	Analysis Requested: Aluminum, Antimony, Arsenic, Chromium, Zinc, Hardness	Dissolved Boron, Ca Chloride, Fluoride, K, Na, Sulfate	Nitrate + Nitrite	Specific cond., pH, Standard TDS	Perchlorate	Matrix	Notes
MW2	3/25/21	9:33				X										X					GW	
MW2		9:33	X																			
MW25		10:47				X										X						
MW25		10:47	X																			
MW12		1150				X										X						
MW12		1150	X																	X		
MW9		1232				X										X						
MW9		1232	X																			
MW9		1235				X										X						
MW9		1235	X																			

Relinquished By (sign)	Print Name / Company	Date / Time	Received By (sign)	Print Name / Company
Allison O'Neal	Allison O'Neal/SCS	3/25/21 16:53	GLS	
GLS		3/26/21 1147		Rosemarie Lofgren/SCS

g on behalf of your organization and relinquishing this chain of custody you agree to abide by the Babcock Laboratories, Inc. *Terms and Conditions.*

(lse Only) Sample Integrity Upon Receipt/Acceptance Criteria

ubmitted on Ice? (Yes) No — Sample meets laboratory acceptance criteria? (Yes) No
's) Intact? Yes No NA — Permission to continue: Yes No
r? 4 (Yes) No — Deviation/Notes:
°C ☐ Cooler Blank — Signature/Date:

C1C3353
Rc'd: 03/26/2021 11:47
SNL

Page 1 of 1

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 09-Apr-2021

Analytical Report: Page 12 of 12
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1C3353

Received on Ice (Y/N): Yes Temp: 4 °C

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Page 2 Of 2

COC# № 86051 GLOBAL ID _____ E REPORT: ☒ PDF ☐ EDF ☐ EDD ASL JOB# _____

CHAIN OF CUSTODY RECORD

Company: SCS Engineers
Address:
Telephone:
Fax:
Special Instruction: See Page 1
E-mail:
Project Name: San Luis Rey
Site Address:
Project ID: 01221001.00
Project Manager:
Report To:
Address:
Invoice To:
Address:
P.O.#:

ANALYSIS REQUESTED: Aluminum, Arsenic, Chromium, Zinc, Hardness; Dissolved Boron, Cyanide, Iron, Mercury, Nitrate+Nitrite, Na, Sulfate, Nitrate, Specific Cond., phosphorus, TDS

ITEM	LAB USE ONLY Lab ID	SAMPLE DESCRIPTION Sample ID	Date	Time	Container(s) #	Type	Matrix	Preservation		Remarks
		MW22	3/25/21	1404	1	plastic	Ground water	HNO_3	X	
		MW22		1404				Ice		
		MW21		1456				HNO_3	X	
		MW21		1456				Ice		

C1C3353
Rc'd: 03/26/2021 11:47
SNL

4 °C TG#72
On Ice YES NO
Samples Intact YES NO
TAG#54

Collected By: [signature] Date 3/25/21 Time 1456
Relinquished By: [signature] Date 3/25/21 Time 17:00
Received By: GLS Date Time

Relinquished By: GLS Date Time
Received For Laboratory: Rosemarie Lopez Date 3/26/21 Time 1147
Condition of Sample:

TAT: ☒ Normal ☐ Rush

White - Report. Yellow - Laboratory. Pink - Client

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BABCOCK Laboratories, Inc.
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Client Name:	SCS Engineers	Analytical Report:	Page 1 of 6
Contact:	Chuck Houser	Project Number:	San Luis Rey
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806	Project Name:	Water Sample Analysis - 2021
		Work Order Number:	**C1C3601**
Report Date:	12-Apr-2021	Received on Ice (Y/N):	Yes Temp: 1 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1C3601-01	MW18	Water	03/29/21 08:35	Allison O'Neal	03/30/21 12:02	GLS
C1C3601-02	MW18	Water	03/29/21 08:38	Allison O'Neal	03/30/21 12:02	GLS
C1C3601-03	MW19	Water	03/29/21 09:25	Allison O'Neal	03/30/21 12:02	GLS

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 12-Apr-2021

Project Number: San Luis Rey
Project Name: Water Sample Analysis - 2021

Work Order Number: C1C3601

Received on Ice (Y/N): Yes Temp: 1 °C

C1C3601-01 *Sampled: 03/29/21 08:35*

MW18

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Sodium-Dissolved	57	2.0	mg/L	EPA 200.7	04/01/21 18:44	AZP	N_pFilt
Calcium-Dissolved	12	2.0	mg/L	EPA 200.7	04/01/21 18:44	AZP	N_pFilt
Potassium-Dissolved	ND	2.0	mg/L	EPA 200.7	04/01/21 18:44	AZP	N_pFilt
Total Hardness	38	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:29	AZP	
Calcium	13	1.0	mg/L	EPA 200.7	04/01/21 17:29	AZP	
Magnesium	1.2	1.0	mg/L	EPA 200.7	04/01/21 17:29	AZP	
Nitrate as N	ND	0.20	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Sulfate-Dissolved	94	0.50	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Chloride-Dissolved	18	1.0	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Nitrate/Nitrite as N	ND	0.20	mg/L	EPA 300.0	03/30/21 16:07	KJN	
Specific Conductance	340	1.0	umhos/cm	SM 2510 B	04/07/21 07:47	BZB	
Total Dissolved Solids	240	10	mg/L	SM 2540C	04/01/21 09:06	YVD	
Total Dissolved Phosphorus	0.23	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:44	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:44	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	04/02/21 15:35	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:29	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	04/02/21 15:29	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 11:52	AJH	
Zinc	ND	50	ug/L	EPA 200.8	04/02/21 15:29	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 12-Apr-2021

Project Number: San Luis Rey
Project Name: Water Sample Analysis - 2021

Work Order Number: C1C3601

Received on Ice (Y/N): Yes Temp: 1 °C

C1C3601-02 *Sampled: 03/29/21 08:38*

MW18

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Sodium-Dissolved	58	2.0	mg/L	EPA 200.7	04/01/21 18:46	AZP	N_pFilt
Calcium-Dissolved	12	2.0	mg/L	EPA 200.7	04/01/21 18:46	AZP	N_pFilt
Potassium-Dissolved	ND	2.0	mg/L	EPA 200.7	04/01/21 18:46	AZP	N_pFilt
Total Hardness	37	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:31	AZP	
Calcium	13	1.0	mg/L	EPA 200.7	04/01/21 17:31	AZP	
Magnesium	1.2	1.0	mg/L	EPA 200.7	04/01/21 17:31	AZP	
Nitrate as N	ND	0.20	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Sulfate-Dissolved	94	0.50	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Chloride-Dissolved	18	1.0	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Nitrate/Nitrite as N	ND	0.20	mg/L	EPA 300.0	03/30/21 16:20	KJN	
Specific Conductance	340	1.0	umhos/cm	SM 2510 B	04/07/21 07:49	BZB	
Total Dissolved Solids	220	10	mg/L	SM 2540C	04/01/21 09:06	YVD	
Total Dissolved Phosphorus	0.080	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:46	AZP	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:46	AZP	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	04/02/21 15:37	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:31	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	04/02/21 15:31	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 11:53	AJH	
Zinc	ND	50	ug/L	EPA 200.8	04/02/21 15:31	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 12-Apr-2021

Project Number: San Luis Rey
Project Name: Water Sample Analysis - 2021

Work Order Number: C1C3601

Received on Ice (Y/N): Yes Temp: 1 °C

C1C3601-03 *Sampled: 03/29/21 09:25*

MW19

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Calcium-Dissolved	83	2.0	mg/L	EPA 200.7	04/01/21 18:48	AZP	N_pFilt
Sodium-Dissolved	35	2.0	mg/L	EPA 200.7	04/01/21 18:48	AZP	N_pFilt
Potassium-Dissolved	4.6	2.0	mg/L	EPA 200.7	04/01/21 18:48	AZP	N_pFilt
Total Hardness	330	6.0	mg/L	SM 2340B/EPA 200.7	04/01/21 17:34	AZP	
Calcium	87	1.0	mg/L	EPA 200.7	04/01/21 17:34	AZP	
Magnesium	27	1.0	mg/L	EPA 200.7	04/01/21 17:34	AZP	
Nitrate as N	9.8	0.20	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Sulfate-Dissolved	160	0.50	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Chloride-Dissolved	78	1.0	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Nitrate/Nitrite as N	9.8	0.20	mg/L	EPA 300.0	03/30/21 16:33	KJN	
Specific Conductance	790	1.0	umhos/cm	SM 2510 B	04/07/21 07:51	BZB	
Total Dissolved Solids	540	10	mg/L	SM 2540C	04/01/21 09:06	YVD	
Total Dissolved Phosphorus	0.083	0.050	mg/L	SM 4500P B E	04/05/21 12:30	DNF	
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	04/02/21 15:39	AJH	N_pFilt
Iron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:48	AZP	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	04/01/21 18:48	AZP	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	04/01/21 17:34	AZP	NLOhND
Arsenic	ND	2.0	ug/L	EPA 200.8	04/02/21 15:33	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	04/06/21 11:54	AJH	
Zinc	ND	50	ug/L	EPA 200.8	04/02/21 15:33	AJH	

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Client Name:	SCS Engineers
Contact:	Chuck Houser
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806
Report Date:	12-Apr-2021

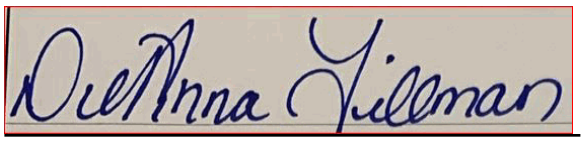
Project Number:	San Luis Rey
Project Name:	Water Sample Analysis - 2021
Work Order Number:	**C1C3601**
Received on Ice (Y/N):	Yes Temp: 1 °C

Notes and Definitions

N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
NLOhND	LCS recovery was above method control limit for this analyte. Analyte not detected, therefore data not impacted.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.



DeAnna Lynn Tillman For KayeLani A. Marshall

cc:

e-Tab_ Summary.rpt

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
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EPA No. CA00102
NELAP No.OR4035
LACSD No., 10119

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Client Name:	SCS Engineers	Analytical Report:	Page 6 of 6
Contact:	Chuck Houser	Project Number:	San Luis Rey
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806	Project Name:	Water Sample Analysis - 2021
		Work Order Number:	**C1C3601**
Report Date:	12-Apr-2021	Received on Ice (Y/N):	Yes Temp: 1 °C

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6100 Quail Valley Court Riverside, CA 92507
(951) 653-3351 • FAX (951) 653-1662
www.babcocklabs.com

Chain of Custody & Sample Information Re

Client: SCS Engineers
Contact: Chuck Houser
Fax No.
Phone No. 858.885.5523
email: chouser@scsengineers.com
Project Name: San Luis Rey
Project Location: #01221006.00
Turn Around Time: (Routine) *72 Hour Rush *48 Hour Rush *24 Hour Rush
*Lab TAT Approval: By: *Additional Charges Apply

Additional Reporting Requests
Include QC Data Package: ☐ Yes ☐ No
FAX Results: ☐ Yes ☐ No
Email Results: ☐ Yes ☐ No
State EDT: ☐ Yes ☐ No
(Include Source Number in Notes)

Sampler Information
Name: Allison O'Neal
Employer: SCS Engineers
Signature: [signature]

# of Containers & Preservatives: Unpreserved, H_2SO_4, HCl, HNO_3, $Na_2S_2O_3$, NaOH, NaOH/Zn Acetate, NH_4Cl, PDC; Total # of Containers

Sample Type: Routine, Resample, Special

Analysis Requested: (A) Aluminum, Arsenic, Chromium, Zn, Hardness; (B) Dissolved Boron, Cu, Chloride, Iron, tin, Nitrate+Nitrite, Nitrite, K, Na, Sulfate, Specific cond., phosphorus, TDS

Matrix: DW = Drinking Water, WW = Waste Water, GW = Ground Water, S = Source, SG = Sludge, L = Liquid, M = Miscellaneous

Sample ID	Date	Time	Unpreserved	HNO_3	Analysis (A)	Analysis (B)	Matrix	Notes
MW18	3/29/21	835		X	X		GW	
MW18	↓	835	X			X	↓	
MW18	↓	838		X	X		↓	
MW18	↓	838	X			X	↓	
MW19	↓	925		X	X		↓	
MW19	↓	925	X			X	↓	

Relinquished By (sign)	Print Name / Company	Date / Time	Received By (sign)	Print Name / Company
[signature]	Allison O'Neal / SCS	3/29/21 / 1120	GLS	GLS
GLS	GLS	3/30/21 1202	[signature]	Rosemarie Loebriesso

By signing on behalf of your organization and relinquishing this chain of custody you agree to abide by the Babcock Laboratories, Inc. *Terms and Conditions.*

(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria TG#602

Sample(s) Submitted on Ice? (Yes) No
Custody Seal(s) Intact? Yes No (NA)
Sample(s) Intact? (Yes) No
Temperature: 1 °C ☐ Cooler Blank

Sample meets laboratory acceptance criteria? (Yes) No
Permission to continue: Yes No
Deviation/Notes:
Signature/Date:

C1C3601
Rc'd: 03/30/2021 12:02
SNL

Rev. 6/16

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Analytical Report: Page 1 of 8
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1J1574-01	MW30	Water	10/12/21 08:40	Allison O'Neal	10/13/21 09:48	GLS
C1J1574-02	MW18	Water	10/12/21 10:32	Allison O'Neal	10/13/21 09:48	GLS
C1J1574-03	MW19	Water	10/12/21 11:10	Allison O'Neal	10/13/21 09:48	GLS
C1J1574-04	MW19	Water	10/12/21 11:12	Allison O'Neal	10/13/21 09:48	GLS
C1J1574-05	MW29	Water	10/12/21 13:02	Allison O'Neal	10/13/21 09:48	GLS

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

C1J1574-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW30	Water	10/12/21 08:40	10/13/21 9:48

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	38	1.0	mg/L	EPA 200.7	10/20/21 18:18	HRL	N_pFilt
Calcium-Dissolved	39	1.0	mg/L	EPA 200.7	10/20/21 18:18	HRL	N_pFilt
Potassium-Dissolved	4.3	1.0	mg/L	EPA 200.7	10/20/21 18:18	HRL	N_pFilt
Total Hardness	150	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:16	HRL	
Calcium	40	1.0	mg/L	EPA 200.7	10/20/21 18:16	HRL	
Magnesium	13	1.0	mg/L	EPA 200.7	10/20/21 18:16	HRL	
Anions							
Nitrate as N	5.2	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Sulfate-Dissolved	65	0.50	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Chloride-Dissolved	41	1.0	mg/L	EPA 300.0	10/13/21 22:28	KJN	
Nitrate/Nitrite as N	5.2	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Aggregate Properties							
Specific Conductance	470	1.0	umhos/cm	SM 2510 B	10/15/21 17:33	BAA	
Solids							
Total Dissolved Solids	200	10	mg/L	SM 2540C	10/15/21 13:56	AXM	
Nutrients							
Total Dissolved Phosphorus	0.063	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:18	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 16:10	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:18	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:16	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/18/21 17:34	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	10/21/21 15:24	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/18/21 17:34	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

C1J1574-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW18	Water	10/12/21 10:32	10/13/21 9:48

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	ND	1.0	mg/L	EPA 200.7	10/20/21 18:22	HRL	N_pFilt
Calcium-Dissolved	8.0	1.0	mg/L	EPA 200.7	10/20/21 18:22	HRL	N_pFilt
Sodium-Dissolved	56	1.0	mg/L	EPA 200.7	10/20/21 18:22	HRL	N_pFilt
Total Hardness	23	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:20	HRL	
Calcium	8.3	1.0	mg/L	EPA 200.7	10/20/21 18:20	HRL	
Magnesium	ND	1.0	mg/L	EPA 200.7	10/20/21 18:20	HRL	
Anions							
Nitrate as N	ND	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Chloride-Dissolved	20	1.0	mg/L	EPA 300.0	10/13/21 22:42	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Sulfate-Dissolved	84	0.50	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrate/Nitrite as N	ND	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Aggregate Properties							
Specific Conductance	320	1.0	umhos/cm	SM 2510 B	10/15/21 17:35	BAA	
Solids							
Total Dissolved Solids	210	10	mg/L	SM 2540C	10/15/21 13:56	AXM	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 16:13	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:22	HRL	N_pFilt
Boron-Dissolved	160	100	ug/L	EPA 200.7	10/20/21 18:22	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:20	HRL	
Arsenic	3.0	2.0	ug/L	EPA 200.8	10/18/21 17:36	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	10/21/21 15:27	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/18/21 17:36	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

C1J1574-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW19	Water	10/12/21 11:10	10/13/21 9:48

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	37	1.0	mg/L	EPA 200.7	10/20/21 18:26	HRL	N_pFilt
Calcium-Dissolved	92	1.0	mg/L	EPA 200.7	10/20/21 18:26	HRL	N_pFilt
Potassium-Dissolved	4.7	1.0	mg/L	EPA 200.7	10/20/21 18:26	HRL	N_pFilt
Total Hardness	370	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:25	HRL	
Calcium	96	1.0	mg/L	EPA 200.7	10/20/21 18:25	HRL	
Magnesium	31	1.0	mg/L	EPA 200.7	10/20/21 18:25	HRL	
Anions							
Nitrate as N	11	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	.MCOk
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Chloride-Dissolved	86	1.0	mg/L	EPA 300.0	10/13/21 22:56	KJN	
Nitrate/Nitrite as N	11	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Aggregate Properties							
Specific Conductance	860	1.0	umhos/cm	SM 2510 B	10/15/21 17:37	BAA	
Solids							
Total Dissolved Solids	560	10	mg/L	SM 2540C	10/15/21 13:56	AXM	
Nutrients							
Total Dissolved Phosphorus	0.057	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:26	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 16:15	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:26	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:25	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/18/21 17:38	AJH	
Total Chromium	1.1	1.0	ug/L	EPA 200.8	10/21/21 15:30	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/18/21 17:38	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

C1J1574-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW19	Water	10/12/21 11:12	10/13/21 9:48

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	4.8	1.0	mg/L	EPA 200.7	10/20/21 18:30	HRL	N_pFilt
Sodium-Dissolved	37	1.0	mg/L	EPA 200.7	10/20/21 18:30	HRL	N_pFilt
Calcium-Dissolved	92	1.0	mg/L	EPA 200.7	10/20/21 18:30	HRL	N_pFilt
Total Hardness	370	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:28	HRL	
Calcium	95	1.0	mg/L	EPA 200.7	10/20/21 18:28	HRL	
Magnesium	31	1.0	mg/L	EPA 200.7	10/20/21 18:28	HRL	
Anions							
Nitrate as N	11	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	.MCOk
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Chloride-Dissolved	86	1.0	mg/L	EPA 300.0	10/13/21 23:37	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrate/Nitrite as N	11	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Aggregate Properties							
Specific Conductance	860	1.0	umhos/cm	SM 2510 B	10/15/21 17:38	BAA	
Solids							
Total Dissolved Solids	570	10	mg/L	SM 2540C	10/14/21 21:53	AZB	
Nutrients							
Total Dissolved Phosphorus	0.063	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 16:18	AJH	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:30	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:30	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:28	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/18/21 17:40	AJH	
Total Chromium	1.1	1.0	ug/L	EPA 200.8	10/21/21 15:45	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/18/21 17:40	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

C1J1574-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW29	Water	10/12/21 13:02	10/13/21 9:48

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	42	1.0	mg/L	EPA 200.7	10/20/21 18:39	HRL	N_pFilt
Calcium-Dissolved	ND	1.0	mg/L	EPA 200.7	10/20/21 18:39	HRL	N_pFilt
Potassium-Dissolved	ND	1.0	mg/L	EPA 200.7	10/20/21 18:39	HRL	N_pFilt
Total Hardness	ND	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:37	HRL	
Calcium	ND	1.0	mg/L	EPA 200.7	10/20/21 18:37	HRL	
Magnesium	ND	1.0	mg/L	EPA 200.7	10/20/21 18:37	HRL	
Anions							
Nitrate as N	ND	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Chloride-Dissolved	16	1.0	mg/L	EPA 300.0	10/13/21 23:54	KJN	
Sulfate-Dissolved	1.8	0.50	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Nitrate/Nitrite as N	ND	0.20	mg/L	EPA 300.0	10/13/21 16:32	KJN	
Aggregate Properties							
Specific Conductance	200	1.0	umhos/cm	SM 2510 B	10/15/21 17:40	BAA	
Solids							
Total Dissolved Solids	130	10	mg/L	SM 2540C	10/14/21 21:53	AZB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:39	HRL	N_pFilt
Boron-Dissolved	440	100	ug/L	EPA 200.7	10/20/21 18:39	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 16:36	AJH	N_pFilt
Aluminum	77	50	ug/L	EPA 200.7	10/20/21 18:37	HRL	
Arsenic	5.7	2.0	ug/L	EPA 200.8	10/18/21 17:42	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	10/21/21 15:47	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/18/21 17:42	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021

Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

Notes and Definitions

.MCOk	MCL notification waived by client. Waiver on file.
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

K. Marshall **KayeLani A. Marshall**

cc:

e-Short_No Alias.rpt

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Analytical Report: Page 8 of 8
Project Name: Water Sample Analysis - 2021
Project Number: San Luis Rey

Work Order Number: C1J1574

Received on Ice (Y/N): Yes Temp: 5 °C

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years
6100 Quail Valley Court Riverside, CA 92507
(951) 653-3351 • FAX (951) 653-1662
www.babcocklabs.com

Chain of Custody & Sample Information Record

Client: SCS Engineers | Contact: Chuck Houser | Fax No.
Phone No. 858. 805. 5523 | email: CHouser@scsengineers.com
Project Name: San Luis Rey | Turn Around Time: (Routine) *72 Hour Rush *48 Hour Rush *24 Hour Rush
Project Location: # 01221001.00 | *Lab TAT Approval: | By: | *Additional Charges Apply

Additional Reporting Requests: Include QC Data Package: ☐ Yes ☐ No; FAX Results: ☐ Yes ☐ No; Email Results: ☐ Yes ☐ No; State EDT: ☐ Yes ☐ No (Include Source Number in Notes)

Sampler Information: Name: Allison ONeal; Employer: SCS Engineers; Signature: Allison ONeal

Sample ID	Date	Time	# of Containers & Preservatives: Unpreserved (1/T5)	H_2SO_4	HCl	HNO_3	$Na_2S_2O_3$	NaOH	NaOH/Zn Acetate	NH_4Cl	PDC	Total # of Containers	Sample Type: Routine	Resample	Special	*Analysis Requested: Aluminum, Arsenic, Chromium, Zn Hardness	Dissolved Boron, Cr, Chloride, Iron, Hardness	Nitrate + Nitrite	Nitrate, K, Na, Sulfate	Special Lead, phosphorous	TDS	Perchlorate	Matrix	Notes
MW30	10/12/21	840				X										X							GW	
MW30		840	X														X							
MW18		1032				X										X								
MW18		1032	X														X							
MW19		1110				X										X								
MW19		1110	X														X							
MW19		1112				X										X								
MW19		1112	X														X							
MW29		1300				X										X								
MW29		1300	X														X							

Relinquished By (sign)	Print Name / Company	Date / Time	Received By (sign)	Print Name / Company
Allison ONeal	Allison ONeal / SCS	10/12/21 1700	GLS	
	GLS	10/13/21 0948		SAM R.

By signing on behalf of your organization and relinquishing this chain of custody you agree to abide by the Babcock Laboratories, Inc. *Terms and Conditions.*

(For Lab Use Only) Sample Integrity Upon Receipt/Acceptance Criteria TG#62

Sample(s) Submitted on Ice? (Yes) No
Custody Seal(s) Intact? Yes No (NA)
Sample(s) Intact? (Yes) No
Temperature: 5 °C ☐ Cooler Blank

Sample meets laboratory acceptance criteria? (Yes) No
Permission to continue: Yes No
Deviation/Notes:
Signature/Date:

C1J1574
Rc'd: 10/13/2021 09:48
JLH

Page ____ of ____

Rev. 6/16

BABCOCK Laboratories, Inc.
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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Analytical Report: Page 1 of 15
Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1J1838-01	MW1	Water	10/13/21 08:15	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-02	MW1	Water	10/13/21 08:17	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-03	MW2	Water	10/13/21 09:07	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-04	MW4	Water	10/13/21 09:55	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-05	MW5	Water	10/13/21 11:23	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-06	MW6	Water	10/13/21 12:09	Allison O'Neal	10/14/21 10:09	GLS
C1J1838-07	MW27	Water	10/13/21 13:08	Allison O'Neal	10/14/21 10:09	GLS

Client Name: SCS Engineers
Contact: Chuck Houser
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Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	10/13/21 08:15	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	34	1.0	mg/L	EPA 200.7	10/20/21 18:43	HRL	N_pFilt
Potassium-Dissolved	5.3	1.0	mg/L	EPA 200.7	10/20/21 18:43	HRL	N_pFilt
Calcium-Dissolved	61	1.0	mg/L	EPA 200.7	10/20/21 18:43	HRL	N_pFilt
Total Hardness	240	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:41	HRL	
Calcium	65	1.0	mg/L	EPA 200.7	10/20/21 18:41	HRL	
Magnesium	18	1.0	mg/L	EPA 200.7	10/20/21 18:41	HRL	
Anions							
Nitrate as N	10	0.20	mg/L	EPA 300.0	10/15/21 12:24	KBS	N_HTa
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 12:24	KBS	N_HTa
Chloride-Dissolved	57	1.0	mg/L	EPA 300.0	10/15/21 12:24	KBS	
Sulfate-Dissolved	98	0.50	mg/L	EPA 300.0	10/15/21 12:24	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 12:24	KBS	N_HTa
Nitrate/Nitrite as N	10	0.20	mg/L	EPA 300.0	10/15/21 12:24	KBS	
Aggregate Properties							
Specific Conductance	630	1.0	umhos/cm	SM 2510 B	10/20/21 19:24	BAA	
Solids							
Total Dissolved Solids	420	10	mg/L	SM 2540C	10/19/21 15:54	AXM	
General Inorganics							
Perchlorate	ND	2.0	ug/L	EPA 314.0	10/21/21 15:07	KJN	
Nutrients							
Total Dissolved Phosphorus	0.052	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	

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Client Name: SCS Engineers
Contact: Chuck Houser
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Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	10/13/21 08:15	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 19:50	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:43	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:43	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:41	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 19:47	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	11/02/21 15:18	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 19:47	AJH	

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	10/13/21 08:17	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	5.5	1.0	mg/L	EPA 200.7	10/20/21 18:47	HRL	N_pFilt
Sodium-Dissolved	35	1.0	mg/L	EPA 200.7	10/20/21 18:47	HRL	N_pFilt
Calcium-Dissolved	63	1.0	mg/L	EPA 200.7	10/20/21 18:47	HRL	N_pFilt
Total Hardness	240	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:45	HRL	
Calcium	66	1.0	mg/L	EPA 200.7	10/20/21 18:45	HRL	
Magnesium	18	1.0	mg/L	EPA 200.7	10/20/21 18:45	HRL	
Anions							
Nitrate as N	10	0.20	mg/L	EPA 300.0	10/15/21 12:37	KBS	N_HTa
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 12:37	KBS	N_HTa
Sulfate-Dissolved	98	0.50	mg/L	EPA 300.0	10/15/21 12:37	KBS	
Chloride-Dissolved	57	1.0	mg/L	EPA 300.0	10/15/21 12:37	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 12:37	KBS	N_HTa
Nitrate/Nitrite as N	10	0.20	mg/L	EPA 300.0	10/15/21 12:37	KBS	
Aggregate Properties							
Specific Conductance	640	1.0	umhos/cm	SM 2510 B	10/20/21 19:25	BAA	
Solids							
Total Dissolved Solids	420	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
General Inorganics							
Perchlorate	ND	2.0	ug/L	EPA 314.0	10/21/21 15:25	KJN	
Nutrients							
Total Dissolved Phosphorus	0.063	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
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Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW1	Water	10/13/21 08:17	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 19:55	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:47	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:47	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:45	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 19:52	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	11/02/21 15:21	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 19:52	AJH	

Client Name: SCS Engineers
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Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW2	Water	10/13/21 09:07	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Calcium-Dissolved	81	1.0	mg/L	EPA 200.7	10/20/21 18:50	HRL	N_pFilt
Potassium-Dissolved	7.0	1.0	mg/L	EPA 200.7	10/20/21 18:50	HRL	N_pFilt
Sodium-Dissolved	44	1.0	mg/L	EPA 200.7	10/20/21 18:50	HRL	N_pFilt
Total Hardness	300	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:48	HRL	
Calcium	83	1.0	mg/L	EPA 200.7	10/20/21 18:48	HRL	
Magnesium	22	1.0	mg/L	EPA 200.7	10/20/21 18:48	HRL	
Anions							
Nitrate as N	8.9	0.20	mg/L	EPA 300.0	10/15/21 12:51	KBS	N_HTa
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 12:51	KBS	N_HTa
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 12:51	KBS	N_HTa
Chloride-Dissolved	83	1.0	mg/L	EPA 300.0	10/15/21 12:51	KBS	
Sulfate-Dissolved	130	0.50	mg/L	EPA 300.0	10/15/21 12:51	KBS	
Nitrate/Nitrite as N	8.9	0.20	mg/L	EPA 300.0	10/15/21 12:51	KBS	
Aggregate Properties							
Specific Conductance	800	1.0	umhos/cm	SM 2510 B	10/20/21 19:27	BAA	
Solids							
Total Dissolved Solids	530	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
Nutrients							
Total Dissolved Phosphorus	0.060	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 20:10	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:50	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:50	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:48	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 20:07	AJH	
Total Chromium	2.0	1.0	ug/L	EPA 200.8	11/02/21 15:35	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 20:07	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	10/13/21 09:55	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	58	1.0	mg/L	EPA 200.7	10/20/21 18:54	HRL	N_pFilt
Calcium-Dissolved	160	1.0	mg/L	EPA 200.7	10/20/21 18:54	HRL	N_pFilt
Potassium-Dissolved	6.7	1.0	mg/L	EPA 200.7	10/20/21 18:54	HRL	N_pFilt
Total Hardness	630	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 18:52	HRL	
Calcium	160	1.0	mg/L	EPA 200.7	10/20/21 18:52	HRL	
Magnesium	54	1.0	mg/L	EPA 200.7	10/20/21 18:52	HRL	
Anions							
Nitrate as N	26	0.20	mg/L	EPA 300.0	10/15/21 13:04	KBS	N_HTa
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 13:04	KBS	N_HTa
Sulfate-Dissolved	200	0.50	mg/L	EPA 300.0	10/15/21 13:04	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 13:04	KBS	N_HTa
Chloride-Dissolved	150	1.0	mg/L	EPA 300.0	10/15/21 13:04	KBS	
Nitrate/Nitrite as N	26	0.20	mg/L	EPA 300.0	10/15/21 13:04	KBS	
Aggregate Properties							
Specific Conductance	1400	1.0	umhos/cm	SM 2510 B	10/20/21 19:29	BAA	
Solids							
Total Dissolved Solids	990	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
General Inorganics							
Perchlorate	3.8	2.0	ug/L	EPA 314.0	10/21/21 15:42	KJN	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	

Client Name: SCS Engineers
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Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW4	Water	10/13/21 09:55	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:54	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 18:54	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 20:15	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 18:52	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 20:12	AJH	
Total Chromium	1.3	1.0	ug/L	EPA 200.8	11/02/21 15:38	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 20:12	AJH	

Client Name: SCS Engineers
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Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW5	Water	10/13/21 11:23	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	5.8	1.0	mg/L	EPA 200.7	10/20/21 19:03	HRL	N_pFilt
Sodium-Dissolved	51	1.0	mg/L	EPA 200.7	10/20/21 19:03	HRL	N_pFilt
Calcium-Dissolved	120	1.0	mg/L	EPA 200.7	10/20/21 19:03	HRL	N_pFilt
Total Hardness	490	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 19:01	HRL	
Calcium	130	1.0	mg/L	EPA 200.7	10/20/21 19:01	HRL	
Magnesium	39	1.0	mg/L	EPA 200.7	10/20/21 19:01	HRL	
Anions							
Nitrate as N	31	0.20	mg/L	EPA 300.0	10/15/21 10:38	KBS	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 10:38	KBS	NMout
Chloride-Dissolved	130	1.0	mg/L	EPA 300.0	10/15/21 10:38	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 10:38	KBS	NMout
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	10/15/21 10:38	KBS	
Nitrate/Nitrite as N	31	0.20	mg/L	EPA 300.0	10/15/21 10:38	KBS	
Aggregate Properties							
Specific Conductance	1200	1.0	umhos/cm	SM 2510 B	10/20/21 19:31	BAA	
Solids							
Total Dissolved Solids	840	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
General Inorganics							
Perchlorate	4.9	2.0	ug/L	EPA 314.0	10/21/21 16:00	KJN	
Nutrients							
Total Dissolved Phosphorus	0.052	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	

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Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW5	Water	10/13/21 11:23	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:03	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 20:20	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:03	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 19:01	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 20:17	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	11/02/21 15:41	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 20:17	AJH	

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Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-06

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW6	Water	10/13/21 12:09	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Potassium-Dissolved	4.0	1.0	mg/L	EPA 200.7	10/20/21 19:07	HRL	N_pFilt
Sodium-Dissolved	59	1.0	mg/L	EPA 200.7	10/20/21 19:07	HRL	N_pFilt
Calcium-Dissolved	85	1.0	mg/L	EPA 200.7	10/20/21 19:07	HRL	N_pFilt
Total Hardness	370	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 19:05	HRL	
Calcium	92	1.0	mg/L	EPA 200.7	10/20/21 19:05	HRL	
Magnesium	34	1.0	mg/L	EPA 200.7	10/20/21 19:05	HRL	
Anions							
Nitrate as N	2.2	0.20	mg/L	EPA 300.0	10/15/21 10:51	KBS	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 10:51	KBS	NMout
Chloride-Dissolved	120	1.0	mg/L	EPA 300.0	10/15/21 10:51	KBS	
Sulfate-Dissolved	190	0.50	mg/L	EPA 300.0	10/15/21 10:51	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 10:51	KBS	NMout
Nitrate/Nitrite as N	2.2	0.20	mg/L	EPA 300.0	10/15/21 10:51	KBS	
Aggregate Properties							
Specific Conductance	960	1.0	umhos/cm	SM 2510 B	10/20/21 19:32	BAA	
Solids							
Total Dissolved Solids	620	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
Nutrients							
Total Dissolved Phosphorus	ND	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:07	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 20:25	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:07	HRL	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 19:05	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 20:23	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	11/02/21 15:44	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 20:23	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Laboratory Reference Number

C1J1838-07

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
MW27	Water	10/13/21 13:08	10/14/21 10:09

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium-Dissolved	49	1.0	mg/L	EPA 200.7	10/20/21 19:10	HRL	N_pFilt
Calcium-Dissolved	79	1.0	mg/L	EPA 200.7	10/20/21 19:10	HRL	N_pFilt
Potassium-Dissolved	4.0	1.0	mg/L	EPA 200.7	10/20/21 19:10	HRL	N_pFilt
Total Hardness	280	3.0	mg/L	SM 2340B/EPA 200.7	10/20/21 19:09	HRL	
Calcium	82	1.0	mg/L	EPA 200.7	10/20/21 19:09	HRL	
Magnesium	18	1.0	mg/L	EPA 200.7	10/20/21 19:09	HRL	
Anions							
Nitrate as N	4.6	0.20	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Chloride-Dissolved	56	1.0	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Nitrate/Nitrite as N	4.6	0.20	mg/L	EPA 300.0	10/15/21 11:04	KBS	
Aggregate Properties							
Specific Conductance	750	1.0	umhos/cm	SM 2510 B	10/20/21 19:34	BAA	
Solids							
Total Dissolved Solids	490	10	mg/L	SM 2540C	10/18/21 18:40	AZB	
Nutrients							
Total Dissolved Phosphorus	0.10	0.050	mg/L	SM 4500P B E	11/03/21 09:50	AXM	
Metals and Metalloids							
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:10	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/20/21 19:10	HRL	N_pFilt
Manganese-Dissolved	ND	20	ug/L	EPA 200.8	10/22/21 20:30	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/20/21 19:09	HRL	
Arsenic	ND	2.0	ug/L	EPA 200.8	10/22/21 20:28	AJH	
Total Chromium	ND	1.0	ug/L	EPA 200.8	11/02/21 15:47	AJH	
Zinc	ND	50	ug/L	EPA 200.8	10/22/21 20:28	AJH	

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

Notes and Definitions

.MCNotif	Notified Chuck Houser and Begonia Heffel via email and voicemail 10/19/21 regarding MCL exceedance
N_HTa	Sample analyzed outside of the EPA recommended holding time.
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
NMout	The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / ''' :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

KayeLani A. Marshall

cc:

e-Short_No Alias.rpt

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 04-Nov-2021

Analytical Report:
Project Name: Water Sample Analysis - 2021
Project Number: Water Sample Analysis - 2021

Work Order Number: C1J1838

Received on Ice (Y/N): Yes Temp: 10 °C

ESB
~~AMERICAN SCIENTIFIC LABORATORIES~~, LLC
Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

C1J1838
Rc'd: 10/14/2021 10:09
JLH

Page 1 of 2

CHAIN OF CUSTODY RECORD

COC# Nº 79900 GLOBAL ID ______ E REPORT: ☒ PDF ☐ EDF ☐ EDD ASL JOB#______

Company: SCS Engineers
Address: 8799 Balboa Ave #290, San Diego, CA, 92123
Telephone: 858.805.5523
Fax:
Special Instruction:
E-mail: chouser@scsengineers.com
Project Name: San Luis Rey
Site Address:
Project ID: 01221001.00
Project Manager: Chuck Houser
Report To:
Address:
Invoice To:
Address:
P.O.#:

ANALYSIS REQUESTED:
- A: Aluminum, Arsenic, Chromium, Zn, Hardness
- B: Dissolved Boron, Ca, Chloride, Iron, Mn
- C: Nitrate + Nitrite
- D: Nitrite, K, Na, Sulfate
- E: Special cond., phosphorus
- F: TDS
- G: Perchlorite

ITEM	Lab ID	Sample ID	Date	Time	#	Type	Matrix	Preservation	A	B	C	D	E	F	G	Remarks
		MW1	10/13/21	815	1	plastic	~~HNO3~~ GW	HNO3	X							
		MW1	↓	815	↓	↓	↓	ice		X	X	X	X	X	X	
		MW1	↓	817	↓	↓	↓	HNO3	X							
		MW1	↓	817	↓	↓	↓	ice		X	X	X	X	X	X	
		MW2	↓	907	↓	↓	↓	HNO3	X							
		MW2	↓	907	↓	↓	↓	ice		X	X	X	X	X		
		MW4	↓	955	↓	↓	↓	HNO3	X							
		MW4	↓	955	↓	↓	↓	ice		X	X	X	X	X	X	
		MW5	↓	1123	↓	↓	↓	HNO3	X							
		MW5	↓	1123	↓	↓	↓	Ice		X	X	X	X	X	X	

Remarks: IG# 72 10.0 °C; Temp 16; On Ice: YES / NO; Samples Intact: YES / NO

Collected By: [signature] Date 10/13/21 Time 1130	Relinquished By: GLS Date 10-14-21 Time 10:09	TAT
Relinquished By: [signature] Date 10/13/21 Time 1500	Received For Laboratory: [signature] Date 10-14-21 Time 10:09	☒ Normal
Received By: GLS Date Time	Condition of Sample:	☐ Rush

White - Report, Yellow - Laboratory, Pink - Client

Client Name:	SCS Engineers	Analytical Report:	Page 15 of 15
Contact:	Chuck Houser	Project Name:	Water Sample Analysis - 2021
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806	Project Number:	Water Sample Analysis - 2021
Report Date:	04-Nov-2021	**Work Order Number:**	**C1J1838**

Received on Ice (Y/N): Yes Temp: 10 °C

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Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Page 2 Of 2

COC# Nº 79899 GLOBAL ID ______ E REPORT: ☒ PDF ☐ EDF ☐ EDD ASL JOB# ______

CHAIN OF CUSTODY RECORD

Company: SCS
Address: See Page 1
Telephone:
Fax:
Special Instruction:
E-mail:

Project Name: San Luis Rey
Site Address:
Project ID: 01221001.00
Project Manager:

Report To:
Address:
Invoice To:
Address:
P.O.#:

ANALYSIS REQUESTED: Aluminum, Arsenic, Chromium, Zn Hardness | Dissolved Boron, Ca, Chloride, Iron, Mn | Nitrate+Nitrite | Nitrite, K, Na, Sulfate | Special cond., phosphous | TDS | Perchlorite

ITEM	Lab ID	Sample ID	Date	Time	#	Type	Matrix	Preservation	Aluminum, Arsenic, Chromium, Zn Hardness	Dissolved Boron, Ca, Chloride, Iron, Mn	Nitrate+Nitrite	Nitrite, K, Na, Sulfate	Special cond., phosphous	TDS	Perchlorite	Remarks
		MW6	10/13/21	1209	1	plastic	GW	HNO3	X							
		MW6	↓	1209	↓	↓	↓	ice		X	X	X	X			
		MW27		1308				HNO3	X							
		MW27		1308				Ice		X	X	X	X			

TG#72
10 °C On Ice: YES / NO
Samples Intact: YES / NO

C1J1838
Rc'd: 10/14/2021 10:09
JLH

Collected By: [signature]	Date 10/13/21	Time 1500	Relinquished By: GLS	Date 10-14-21	Time 10:09	TAT
Relinquished By: [signature]	Date 10/13/21	Time 1500	Received For Laboratory: [signature]	Date 10-14-21	Time 10:09	☑ Normal
Received By: GLS	Date	Time	Condition of Sample:			☐ Rush

White - Report, Yellow - Laboratory, Pink - Client

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Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
C1J2009-01	MW12	Liquid	10/14/21 08:45	Allison O'Neal	10/15/21 13:19	GLS
C1J2009-02	MW12	Liquid	10/14/21 08:47	Allison O'Neal	10/15/21 13:19	GLS
C1J2009-03	MW9	Liquid	10/14/21 09:37	Allison O'Neal	10/15/21 13:19	GLS
C1J2009-04	MW21	Liquid	10/14/21 11:44	Allison O'Neal	10/15/21 13:19	GLS
C1J2009-05	MW22	Liquid	10/14/21 12:33	Allison O'Neal	10/15/21 13:19	GLS
C1J2009-06	MW25	Liquid	10/14/21 13:31	Allison O'Neal	10/15/21 13:19	GLS

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Analytical Report: Page 2 of 16
Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-01 *Sampled: 10/14/21 08:45*

MW12

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Potassium-Dissolved	6.2	1.0	mg/L	EPA 200.7	10/21/21 16:40	HRL	
Calcium-Dissolved	190	2.0	mg/L	EPA 200.7	10/28/21 19:23	HRL	N_pFilt
Sodium-Dissolved	120	1.0	mg/L	EPA 200.7	10/21/21 16:40	HRL	
Calcium-Dissolved	200	1.0	mg/L	EPA 200.7	10/21/21 16:40	HRL	
Total Hardness	800	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:04	HRL	
Total Hardness	840	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 16:38	HRL	
Calcium	190	2.0	mg/L	EPA 200.7	11/05/21 00:04	HRL	
Calcium	210	1.0	mg/L	EPA 200.7	10/21/21 16:38	HRL	
Magnesium	79	1.0	mg/L	EPA 200.7	10/21/21 16:38	HRL	
Magnesium	75	2.0	mg/L	EPA 200.7	11/05/21 00:04	HRL	
Sodium	140	2.0	mg/L	EPA 200.7	11/05/21 00:04	HRL	
Potassium	6.6	2.0	mg/L	EPA 200.7	11/05/21 00:04	HRL	
Nitrate as N	2.2	0.40	mg/L	EPA 300.0	10/15/21 22:05	KBS	
Nitrite as N	ND	0.2	mg/L	EPA 300.0	10/15/21 22:05	KBS	N_RLd
Nitrite as N-Dissolved	ND	0.2	mg/L	EPA 300.0	10/15/21 22:05	KBS	N_RLd
Sulfate-Dissolved	540	2.5	mg/L	EPA 300.0	10/19/21 13:09	KJN	
Chloride-Dissolved	260	2.0	mg/L	EPA 300.0	10/15/21 22:05	KBS	
Nitrate/Nitrite as N	2.2	0.40	mg/L	EPA 300.0	10/15/21 22:05	KBS	
Specific Conductance	1900	1.0	umhos/cm	SM 2510 B	10/20/21 21:57	BAA	
Total Dissolved Solids	1400	20	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-01 *Sampled: 10/14/21 08:45*

MW12

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Perchlorate	ND	2.0	ug/L	EPA 314.0	10/26/21 10:05	KJN	
Total Phosphorus	0.06	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:23	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:40	HRL	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:23	HRL	N_pFilt, N_RLm
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:40	HRL	
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 16:38	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:04	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:12	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:12	AJH	
Manganese	ND	10	ug/L	EPA 200.8	11/04/21 16:12	AJH	
Zinc	ND	10	ug/L	EPA 200.8	11/04/21 16:12	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-02 *Sampled: 10/14/21 08:47*

MW12

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Potassium-Dissolved	6.3	1.0	mg/L	EPA 200.7	10/21/21 16:44	HRL	
Calcium-Dissolved	190	2.0	mg/L	EPA 200.7	10/28/21 19:25	HRL	N_pFilt
Calcium-Dissolved	200	1.0	mg/L	EPA 200.7	10/21/21 16:44	HRL	
Sodium-Dissolved	120	1.0	mg/L	EPA 200.7	10/21/21 16:44	HRL	
Total Hardness	800	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:12	HRL	
Total Hardness	850	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 16:42	HRL	
Calcium	200	1.0	mg/L	EPA 200.7	10/21/21 16:42	HRL	
Calcium	200	2.0	mg/L	EPA 200.7	11/05/21 00:12	HRL	
Magnesium	75	2.0	mg/L	EPA 200.7	11/05/21 00:12	HRL	
Magnesium	80	1.0	mg/L	EPA 200.7	10/21/21 16:42	HRL	
Sodium	130	2.0	mg/L	EPA 200.7	11/05/21 00:12	HRL	
Potassium	6.4	2.0	mg/L	EPA 200.7	11/05/21 00:12	HRL	
Nitrate as N	2.2	0.40	mg/L	EPA 300.0	10/15/21 22:19	KBS	
Nitrite as N	ND	0.2	mg/L	EPA 300.0	10/15/21 22:19	KBS	N_RLd
Sulfate-Dissolved	540	2.5	mg/L	EPA 300.0	10/19/21 13:23	KJN	
Chloride-Dissolved	260	2.0	mg/L	EPA 300.0	10/15/21 22:19	KBS	
Nitrite as N-Dissolved	ND	0.2	mg/L	EPA 300.0	10/15/21 22:19	KBS	N_RLd
Nitrate/Nitrite as N	2.2	0.40	mg/L	EPA 300.0	10/15/21 22:19	KBS	
Specific Conductance	1900	1.0	umhos/cm	SM 2510 B	10/20/21 21:59	BAA	
Total Dissolved Solids	1300	20	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
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Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-02 *Sampled: 10/14/21 08:47*

MW12

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Perchlorate	ND	2.0	ug/L	EPA 314.0	10/26/21 10:22	KJN	
Total Phosphorus	ND	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Manganese-Dissolved	ND	10	ug/L	EPA 200.8	11/01/21 13:50	AJH	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:25	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:44	HRL	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:25	HRL	N_pFilt, N_RLm
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:44	HRL	
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 16:42	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:12	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:15	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:15	AJH	
Zinc	ND	10	ug/L	EPA 200.8	11/04/21 16:15	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-03 *Sampled: 10/14/21 09:37*

MW9

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Calcium-Dissolved	150	1.0	mg/L	EPA 200.7	10/21/21 16:47	HRL	
Calcium-Dissolved	150	2.0	mg/L	EPA 200.7	10/28/21 19:28	HRL	N_pFilt
Potassium-Dissolved	5.6	1.0	mg/L	EPA 200.7	10/21/21 16:47	HRL	
Sodium-Dissolved	67	1.0	mg/L	EPA 200.7	10/21/21 16:47	HRL	
Total Hardness	610	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 16:46	HRL	
Total Hardness	590	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:13	HRL	
Calcium	160	1.0	mg/L	EPA 200.7	10/21/21 16:46	HRL	
Calcium	150	2.0	mg/L	EPA 200.7	11/05/21 00:13	HRL	
Magnesium	53	1.0	mg/L	EPA 200.7	10/21/21 16:46	HRL	
Magnesium	50	2.0	mg/L	EPA 200.7	11/05/21 00:13	HRL	
Nitrate as N	1.3	0.20	mg/L	EPA 300.0	10/15/21 22:32	KBS	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 22:32	KBS	
Sulfate-Dissolved	380	2.5	mg/L	EPA 300.0	10/19/21 13:36	KJN	
Chloride-Dissolved	150	1.0	mg/L	EPA 300.0	10/15/21 22:32	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 22:32	KBS	
Nitrate/Nitrite as N	1.3	0.20	mg/L	EPA 300.0	10/15/21 22:32	KBS	
Specific Conductance	1300	1.0	umhos/cm	SM 2510 B	10/20/21 22:01	BAA	
Total Dissolved Solids	930	10	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-03 *Sampled: 10/14/21 09:37*

MW9

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Total Phosphorus	ND	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:28	HRL	N_pFilt
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:47	HRL	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:28	HRL	N_pFilt, N_RLm
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:47	HRL	
Manganese-Dissolved	ND	10	ug/L	EPA 200.8	11/01/21 13:52	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 16:46	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:13	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:17	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:17	AJH	
Zinc	ND	10	ug/L	EPA 200.8	11/04/21 16:17	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Analytical Report: Page 8 of 16
Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-04 *Sampled: 10/14/21 11:44*

MW21

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Potassium-Dissolved	2.8	1.0	mg/L	EPA 200.7	10/21/21 16:51	HRL	
Calcium-Dissolved	88	2.0	mg/L	EPA 200.7	10/28/21 19:30	HRL	N_pFilt
Sodium-Dissolved	86	1.0	mg/L	EPA 200.7	10/21/21 16:51	HRL	
Calcium-Dissolved	90	1.0	mg/L	EPA 200.7	10/21/21 16:51	HRL	
Total Hardness	310	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 16:49	HRL	
Total Hardness	300	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:15	HRL	
Calcium	92	2.0	mg/L	EPA 200.7	11/05/21 00:15	HRL	
Calcium	94	1.0	mg/L	EPA 200.7	10/21/21 16:49	HRL	
Magnesium	17	2.0	mg/L	EPA 200.7	11/05/21 00:15	HRL	
Magnesium	18	1.0	mg/L	EPA 200.7	10/21/21 16:49	HRL	
Nitrate as N	14	0.20	mg/L	EPA 300.0	10/15/21 22:46	KBS	.MCNotify
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/15/21 22:46	KBS	
Sulfate-Dissolved	230	0.50	mg/L	EPA 300.0	10/15/21 22:46	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/15/21 22:46	KBS	
Chloride-Dissolved	100	1.0	mg/L	EPA 300.0	10/15/21 22:46	KBS	
Nitrate/Nitrite as N	14	0.20	mg/L	EPA 300.0	10/15/21 22:46	KBS	
Specific Conductance	960	1.0	umhos/cm	SM 2510 B	10/20/21 22:03	BAA	
Total Dissolved Solids	630	10	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-04 *Sampled: 10/14/21 11:44*

MW21

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Total Phosphorus	ND	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:30	HRL	N_pFilt, N_RLm
Boron-Dissolved	140	100	ug/L	EPA 200.7	10/21/21 16:51	HRL	
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:51	HRL	
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:30	HRL	N_pFilt
Manganese-Dissolved	ND	10	ug/L	EPA 200.8	11/01/21 13:55	AJH	N_pFilt
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 16:49	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:15	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:20	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:20	AJH	
Zinc	21	10	ug/L	EPA 200.8	11/04/21 16:20	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-05 *Sampled: 10/14/21 12:33*

MW22

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Sodium-Dissolved	67	1.0	mg/L	EPA 200.7	10/21/21 16:55	HRL	
Potassium-Dissolved	6.7	1.0	mg/L	EPA 200.7	10/21/21 16:55	HRL	
Calcium-Dissolved	180	1.0	mg/L	EPA 200.7	10/21/21 16:55	HRL	
Calcium-Dissolved	180	2.0	mg/L	EPA 200.7	10/28/21 19:32	HRL	N_pFilt
Total Hardness	650	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:17	HRL	
Total Hardness	670	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 16:53	HRL	
Calcium	180	1.0	mg/L	EPA 200.7	10/21/21 16:53	HRL	
Calcium	180	2.0	mg/L	EPA 200.7	11/05/21 00:17	HRL	
Magnesium	50	1.0	mg/L	EPA 200.7	10/21/21 16:53	HRL	
Magnesium	47	2.0	mg/L	EPA 200.7	11/05/21 00:17	HRL	
Nitrate as N	22	0.40	mg/L	EPA 300.0	10/16/21 00:04	KBS	.MCNotify
Nitrite as N	ND	0.2	mg/L	EPA 300.0	10/16/21 00:04	KBS	N_RLd
Nitrite as N-Dissolved	ND	0.2	mg/L	EPA 300.0	10/16/21 00:04	KBS	N_RLd
Chloride-Dissolved	180	2.0	mg/L	EPA 300.0	10/16/21 00:04	KBS	
Sulfate-Dissolved	370	1.0	mg/L	EPA 300.0	10/16/21 00:04	KBS	
Nitrate/Nitrite as N	22	0.40	mg/L	EPA 300.0	10/16/21 00:04	KBS	
Specific Conductance	1500	1.0	umhos/cm	SM 2510 B	10/20/21 22:05	BAA	
Total Dissolved Solids	1100	10	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-05 *Sampled: 10/14/21 12:33*

MW22

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Total Phosphorus	ND	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Boron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:55	HRL	
Manganese-Dissolved	ND	10	ug/L	EPA 200.8	11/01/21 13:57	AJH	N_pFilt
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:32	HRL	N_pFilt, N_RLm
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:32	HRL	N_pFilt
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 16:55	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:17	HRL	
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 16:53	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:22	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:22	AJH	
Zinc	14	10	ug/L	EPA 200.8	11/04/21 16:22	AJH	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-06 *Sampled: 10/14/21 13:31*

MW25

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Sodium-Dissolved	85	1.0	mg/L	EPA 200.7	10/21/21 17:04	HRL	
Calcium-Dissolved	35	2.0	mg/L	EPA 200.7	10/28/21 19:34	HRL	N_pFilt
Calcium-Dissolved	37	1.0	mg/L	EPA 200.7	10/21/21 17:04	HRL	
Potassium-Dissolved	3.0	1.0	mg/L	EPA 200.7	10/21/21 17:04	HRL	
Total Hardness	110	6.0	mg/L	SM 2340B/EPA 200.7	11/05/21 00:19	HRL	
Total Hardness	110	3.0	mg/L	SM 2340B/EPA 200.7	10/21/21 17:02	HRL	
Calcium	38	2.0	mg/L	EPA 200.7	11/05/21 00:19	HRL	
Calcium	38	1.0	mg/L	EPA 200.7	10/21/21 17:02	HRL	
Magnesium	2.8	2.0	mg/L	EPA 200.7	11/05/21 00:19	HRL	
Magnesium	2.8	1.0	mg/L	EPA 200.7	10/21/21 17:02	HRL	
Sulfate	160	0.50	mg/L	EPA 300.0	10/22/21 16:31	KJN	
Nitrate as N	1.7	0.20	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Nitrite as N	ND	0.1	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Nitrite as N-Dissolved	ND	0.1	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Sulfate-Dissolved	170	0.50	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Chloride-Dissolved	35	1.0	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Nitrate/Nitrite as N	1.7	0.20	mg/L	EPA 300.0	10/16/21 00:17	KBS	
Specific Conductance	600	1.0	umhos/cm	SM 2510 B	10/20/21 22:07	BAA	
Total Dissolved Solids	370	10	mg/L	SM 2540C	10/20/21 19:22	AXM	

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

C1J2009-06 *Sampled: 10/14/21 13:31*

MW25

	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Total Phosphorus	ND	0.05	mg/L	SM 4500P B E	11/06/21 14:15	AXM	
Boron-Dissolved	ND	200	ug/L	EPA 200.7	10/28/21 19:34	HRL	N_pFilt, N_RLm
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/21/21 17:04	HRL	
Iron-Dissolved	ND	100	ug/L	EPA 200.7	10/28/21 19:34	HRL	N_pFilt
Manganese-Dissolved	ND	10	ug/L	EPA 200.8	11/01/21 14:00	AJH	N_pFilt
Boron-Dissolved	130	100	ug/L	EPA 200.7	10/21/21 17:04	HRL	
Aluminum	ND	50	ug/L	EPA 200.7	10/21/21 17:02	HRL	
Aluminum	ND	200	ug/L	EPA 200.7	11/05/21 00:19	HRL	
Arsenic	ND	5.0	ug/L	EPA 200.8	11/04/21 16:25	AJH	
Total Chromium	ND	20	ug/L	EPA 200.8	11/04/21 16:25	AJH	
Zinc	ND	10	ug/L	EPA 200.8	11/04/21 16:25	AJH	

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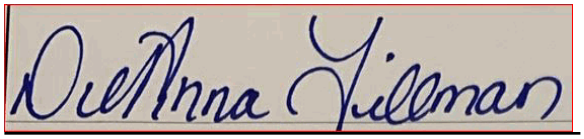
Client Name:	SCS Engineers	Analytical Report:	Page 14 of 16
Contact:	Chuck Houser	Project Number:	Water Sample Analysis - 2021
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806	Project Name:	Water Sample Analysis - 2021
Report Date:	08-Nov-2021	**Work Order Number:**	**C1J2009**
		Received on Ice (Y/N):	Yes Temp: 6 °C

Notes and Definitions

.MCNotify	Notified Chuck Houser via email and voice mail 10/20/21 regarding MCL exceedance
N_pFilt	Sample filtered and preserved upon receipt to the laboratory.
N_RLd	The reporting limit has been raised due to sample dilution. The dilution was required to get one or more target analytes within the calibration range of the instrument.
N_RLm	Due to sample matrix, the reporting limit has been raised.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.



DeAnna Lynn Tillman For KayeLani A. Marshall

cc:

e-Tab_ Summary.rpt

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P (951) 653-3351
F (951) 653-1662
www.babcocklabs.com

CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

Client Name:	SCS Engineers	Analytical Report:	Page 15 of 16
Contact:	Chuck Houser	Project Number:	Water Sample Analysis - 2021
Address:	3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806	Project Name:	Water Sample Analysis - 2021
		Work Order Number:	**C1J2009**
Report Date:	08-Nov-2021	Received on Ice (Y/N):	Yes Temp: 6°C

~~AMERICAN SCIENTIFIC LABORATORIES, LLC~~ ~~EBS~~ ESB
Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

C1J2009
Rc'd: 10/15/2021 13:19
JLH

Page 1 of 2

COC# Nº 79902 GLOBAL ID ______ E REPORT: ☒ PDF ☐ EDF ☐ EDD ASL JOB# ______

CHAIN OF CUSTODY RECORD

Company: SCS Engineers	Report To:
Address: 8799 Balboa Ave #290, San Diego, CA 92123	Address:
Project Name: San Luis Rey	Invoice To:
Site Address:	Address:
Telephone/Fax: 858. 805. 5523	
Special Instruction:	Project ID: 01221001.00
E-mail: chouser@scsengineers.com	Project Manager: Chuck Houser
P.O.#:	

ANALYSIS REQUESTED

Item	Lab ID	Sample ID	Date	Time	#	Type	Matrix	Preservation	Aluminum, Arsenic, Chromium, Zn, Hardness	Dissolved Boron, Ca, Chloride, Iron, Mn	Nitrate + Nitrite	Nitrite, K, Na, Sulfate	Special Cond, phosphorus	TDS		Perchlorate	Remarks
		MW12	10/14/21	845	1	plastic	GW	HNO3	X								
		MW12	↓	845	↓	↓	↓	ice		X	X	X	X	X		X	
		MW12		847				HNO3	X								
		MW12		847				ice		X	X	X	X	X		X	
		MW9		937				HNO3	X								
		MW9		937				ice		X	X	X	X	X			
		MW21		1144				HNO3	X								
		MW21		1144				ice		X	X	X	X	X			
		MW22		1233				HNO3	X								
		MW22		1233				ice		X	X	X	X	X			

Remarks: Tag/S4 T6#6.0 6 °C; On Ice YES NO; Samples Intact YES NO

Collected By: [signature]	Date 10/14/21	Time 1233	Relinquished By: GLS	Date 10-15-21	Time 13:19	TAT
Relinquished By: [signature]	Date 10/14/21	Time 1630	Received For Laboratory: [signature]	Date 10-15-21	Time 13:19	☒ Normal ☐ Rush
Received By: GLS	Date	Time	Condition of Sample:			

White - Report, Yellow - Laboratory, Pink - Client

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: SCS Engineers
Contact: Chuck Houser
Address: 3900 Kilroy Airport Way Suite 100
Long Beach, CA 90806

Report Date: 08-Nov-2021

Analytical Report: Page 16 of 16
Project Number: Water Sample Analysis - 2021
Project Name: Water Sample Analysis - 2021

Work Order Number: C1J2009

Received on Ice (Y/N): Yes Temp: 6 °C

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Page 2 Of 2

COC# Nº 79901 GLOBAL ID _____ E REPORT: ☐ PDF ☐ EDF ☐ EDD ASL JOB# _____

CHAIN OF CUSTODY RECORD

Company: SCS
Address:
Telephone: See page 1
Fax:
Special Instruction:
E-mail:
Project Name: San Luis Rey
Site Address:
Project ID: 01221501.00
Project Manager:
Report To:
Address:
Invoice To:
Address:
P.O.#:

ANALYSIS REQUESTED: Aluminum, Arsenic, Chromium, Zinc, Hardness; Dissolved Boron, Ca, Chloride, Iron, Tin, Nitrate + Nitrite; Nitrite, K, Na, Sulfate; Special cond., Phosphorus; TDS; Perchlorate

ITEM	LAB USE ONLY Lab ID	SAMPLE DESCRIPTION Sample ID	Date	Time	Container(s) #	Type	Matrix	Preservation		Remarks
		MW25	10/14/21	1331	1	plastic	GW	HNO3	X	
		MW25	10/14/21	1331	1	plastic	GW	Ice		

C1J2009
Rc'd: 10/15/2021 13:19
JLH

Collected By: [signature] Date 10/14/21 Time 1331
Relinquished By: [signature] Date 10/14/21 Time 1630
Received By: GLS Date Time

Relinquished By: GLS Date 10.15.21 Time 13:19
Received For Laboratory: [signature] Date 10.15.21 Time 13:19
Condition of Sample:

TAT ☒ Normal ☐ Rush

White - Report, Yellow - Laboratory, Pink - Client

APPENDIX 3C

Technical Memorandum: Groundwater Dependent Vegetation Assessment for the Groundwater Sustainability Plan for the Upper San Luis Rey Valley Groundwater Sub-Basin

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942
619.462.1515 tel
619.462.0552 fax
www.**helixepi**.com

May 21, 2021 03869.00002.001

Lauren Wicks, PG
Project Geohydrologist
GEOSCIENCE Support Services, Inc.
620 E Arrow Highway, Suite 2000
La Verne, CA 91750

Subject: Groundwater Dependent Vegetation Assessment for the Groundwater Sustainability Plan for the Upper San Luis Rey Valley Groundwater Sub-Basin

Dear Ms. Wicks:

At the request of GEOSCIENCE Support Services, Inc. (Client), HELIX Environmental Planning, Inc. (HELIX) completed a desktop assessment of groundwater dependent vegetation for the preparation of a Groundwater Sustainability Plan for the Upper San Luis Rey Valley Groundwater Sub-Basin (Sub-Basin; Project). The purpose of the assessment was to identify groundwater-dependent vegetation communities within the Sub-Basin. This report provides a brief summary of the assessment methods and results.

METHODS

HELIX compiled the following data sources as part of the desktop assessment to compile a map of the potential locations of groundwater-dependent vegetation that occurs in the Sub-Basin: recent and historical aerial imagery (Esri 2020; Google 2021a; Google 2021b; Historical Aerials 2021), National Wetlands Inventory (NWI) mapping (USFWS 2021), San Diego Association of Governments (SANDAG) regional vegetation mapping (SANDAG 2012), topographic mapping (USGS 2021), and other pertinent biological resources data. The NWI is a public data source made available by the U.S. Fish and Wildlife Service that provides generalized locations of potential wetlands throughout the United States. It also includes generalized locations of drainages, ponds, and other related resources, but the NWI data has not been ground-truthed and should not be used at a project-level for vegetation mapping. However, it provides for a resource that can help guide the general locations of wetlands and other groundwater-dependent vegetation. Topographic mapping was used to help evaluate the portions of the Sub-Basin that may be too steep to support groundwater-dependent vegetation. The SANDAG regional vegetation mapping that was completed in 2012 for the western portion of San Diego County; the SANDAG regional vegetation mapping only included a portion of the Sub-Basin.

HELIX compiled the NWI mapping, SANDAG regional vegetation mapping, and topographic mapping into an ArcGIS Online Viewer with the current and historical aerial photographs. HELIX biologists then reviewed the vegetation community mapping and NWI data in relation to the aerial photos to evaluate

the potential groundwater-dependent vegetation within the Sub-Basin. Slopes mapped as greater than 25 percent were excluded unless aerial imagery clearly countered the mapping. HELIX biologists also used their knowledge and experience in this portion of San Diego County to help refine the mapping. In areas where NWI mapping or SANDAG mapping indicated vegetation that was not consistent with multiple aerial photographs, those areas were not included as groundwater-dependent vegetation areas. The Sub-Basin also supports large areas of oak riparian forest, some of which are expected to be dependent on groundwater and other areas where the oaks (such as coast live oak woodland in upland areas) may not be dependent on groundwater. HELIX used a combination of factors (e.g., topography, air photos, distance from other wetland areas, position in the landscape) and professional judgement to compile the portions of oak woodlands that would likely be dependent on groundwater. However, none of the areas mapped have been evaluated in the field to confirm the locations or extent of actual vegetation. Field verification would be needed to confirm the amount and extent of groundwater-dependent vegetation at a project level.

HELIX compiled a map of the potential areas supporting groundwater-dependent vegetation based on the desktop analysis described above. Nomenclature used in this memo follows Holland (1986) and Oberbauer (2008) for vegetation communities.

RESULTS

Groundwater Dependent Vegetation Communities

In total, 56 mapped Holland/Oberbauer vegetation communities and five NWI vegetation communities were mapped within the Sub-Basin based on historical vegetation mapping. Mapping was first refined to include only those vegetation communities that were considered to be potentially groundwater dependent. This included all five of the NWI vegetation communities (Table 1, *National Wetlands Inventory Potential Groundwater-Dependent Vegetation Communities*) and 11 of the Holland/Oberbauer vegetation communities (Table 2, *Holland/Oberbauer Potential Groundwater-Dependent Vegetation Communities*). This mapping was then closely inspected relative to the aerial photo base and slope data and vegetation that was not considered likely to be groundwater dependent was removed. Lastly, HELIX examined the aerial photo and added polygons where additional groundwater dependent vegetation was likely to occur. These new areas included largely unvegetated wash (because water flow and vegetated zones within riverine systems can fluctuate from year to year), narrow strips along some drainages, and other areas that appeared to occur along wetland corridors or drainages but had not been included in one of the historically mapped target vegetation communities. Many drainages (typically blue or green lines on the final map) were considered to be too incised or located in too steep of topography to support groundwater dependent vegetation. The added areas are labeled generically as ‘Groundwater-Dependent Vegetation’ on the final mapping. The final groundwater dependent vegetation locations are provided in the Computer Aided Design (AutoCAD) files that accompany this report.

Table 1
NATIONAL WETLANDS INVENTORY
POTENTIAL GROUNDWATER-DEPENDENT VEGETATION COMMUNITIES

Vegetation Community Name
Riverine
Freshwater Pond
Freshwater Forested/Shrub Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Riparian

Table 2
HOLLAND/OBERBAUER
POTENTIAL GROUNDWATER-DEPENDENT VEGETATION COMMUNITIES

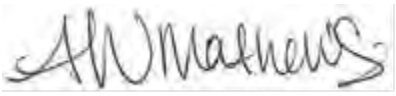
Vegetation Community Name (Holland/Oberbauer Code)
Southern Riparian Forest (61300)
Southern Coast Live Oak Riparian Forest (61310)
Southern Arroyo Willow Riparian Forest (61320)
Southern Cottonwood-Willow Riparian Forest (61330)
Southern Riparian Woodland (62000)
Southern Sycamore-Alder Riparian Woodland (62400)
Southern Riparian Scrub (63300)
Mule Fat Scrub (63310)
Southern Willow Scrub (63320)
Freshwater (64140)
Non-native Riparian (65000)

The acreage of potential groundwater-dependent vegetation within the Sub-Basin that was compiled for this assessment totaled 2,545 acres.

CLOSING

We appreciate the opportunity to provide you with this assessment. If you have questions, please contact me or Shelby Howard at (619) 462-1515.

Sincerely,



Mandy Mathews
Biologist

Attachment: GIS Shapefiles of the potential groundwater-dependent vegetation

REFERENCES

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Oberbauer, Thomas. 2008. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. Revised from 1996 and 2005. July.

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APPENDIX 3D

Technical Memorandum: Development and Calibration of

Upper San Luis Rey Groundwater Model

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

Table of Contents

Figures

No. **Description**

(Attached)

Tables

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY GROUNDWATER MODEL

1.0 Introduction

This Technical Memorandum documents the development and calibration of the Upper San Luis Rey Groundwater Model (USLRGM), which consists of an integrated surface water and three-layer groundwater model that were calibrated to observed surface water flow and groundwater elevations for the period from 1991 through 2020 (Figure 1). The purpose of the USLRGM is to provide a solid approach for evaluating groundwater budgets and individual recharge and discharge terms. In addition, it also represents a tool that can be used for future basin management, such as providing projections of groundwater impacts and the evaluation of proposed projects to meet groundwater sustainability goals.

2.0 Upper San Luis Rey Watershed Model

2.1 Model Codes

A rainfall-runoff model of the watershed overlying and contributing to the Upper San Luis Rey Groundwater Basin was developed using the HSPF. The purpose of this Upper San Luis Rey Watershed Model is to help understanding and estimating certain groundwater basin water budget components related to the surface water, including subsurface inflows from mountain front runoff, areal recharge from precipitation and streambed percolation. HSPF is a successor to the FORTRAN version of the Stanford Watershed Model. The Stanford Watershed Model evolved over the period from approximately 1956 through 1966. In 1974, work resulted in the widely available codes developed for and with support of the U.S. EPA. HSPF is a comprehensive and physically based watershed model that can simulate the hydrology and water quality with a time step less than a day (hourly). A schematic diagram of the HSPF model is shown on Figure 2. Figure 3 illustrates the primary components of a HSPF model, and the relationship between a watershed and associated groundwater basin.

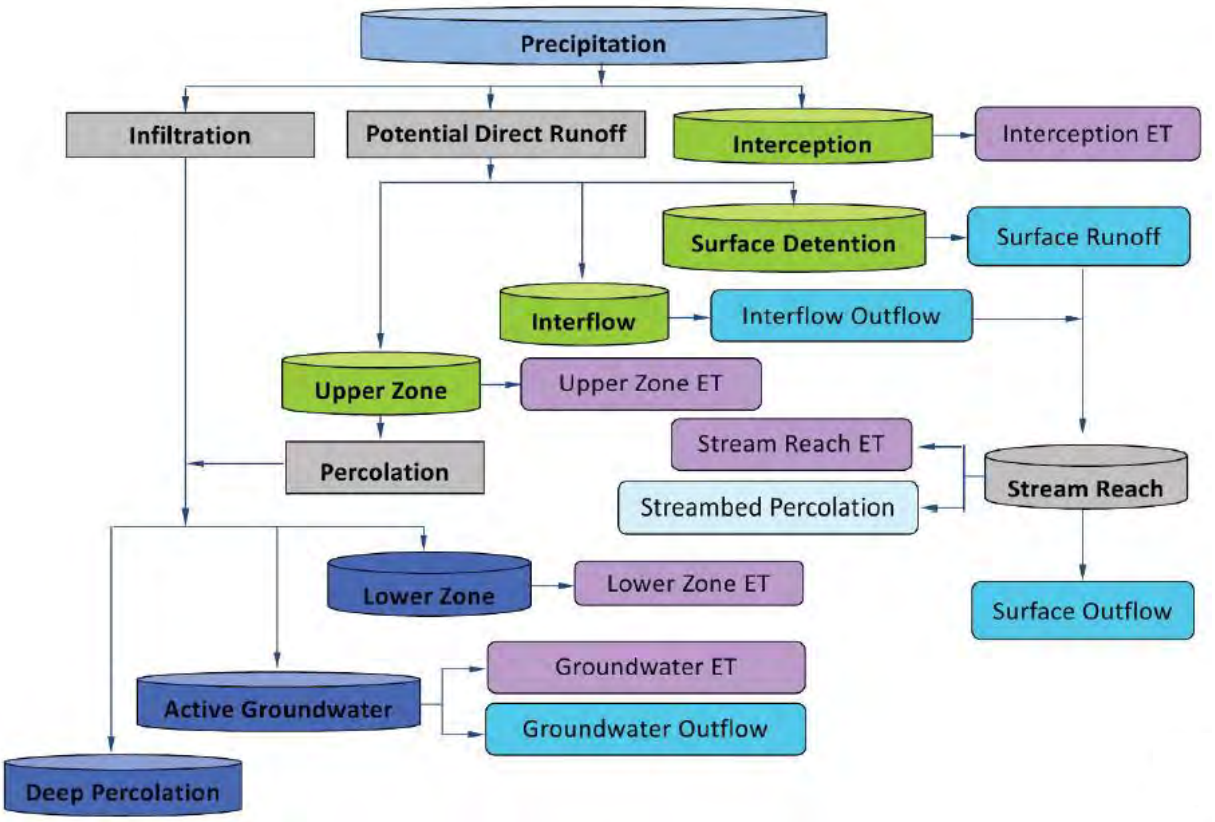

Figure 2 HSPF Diagram

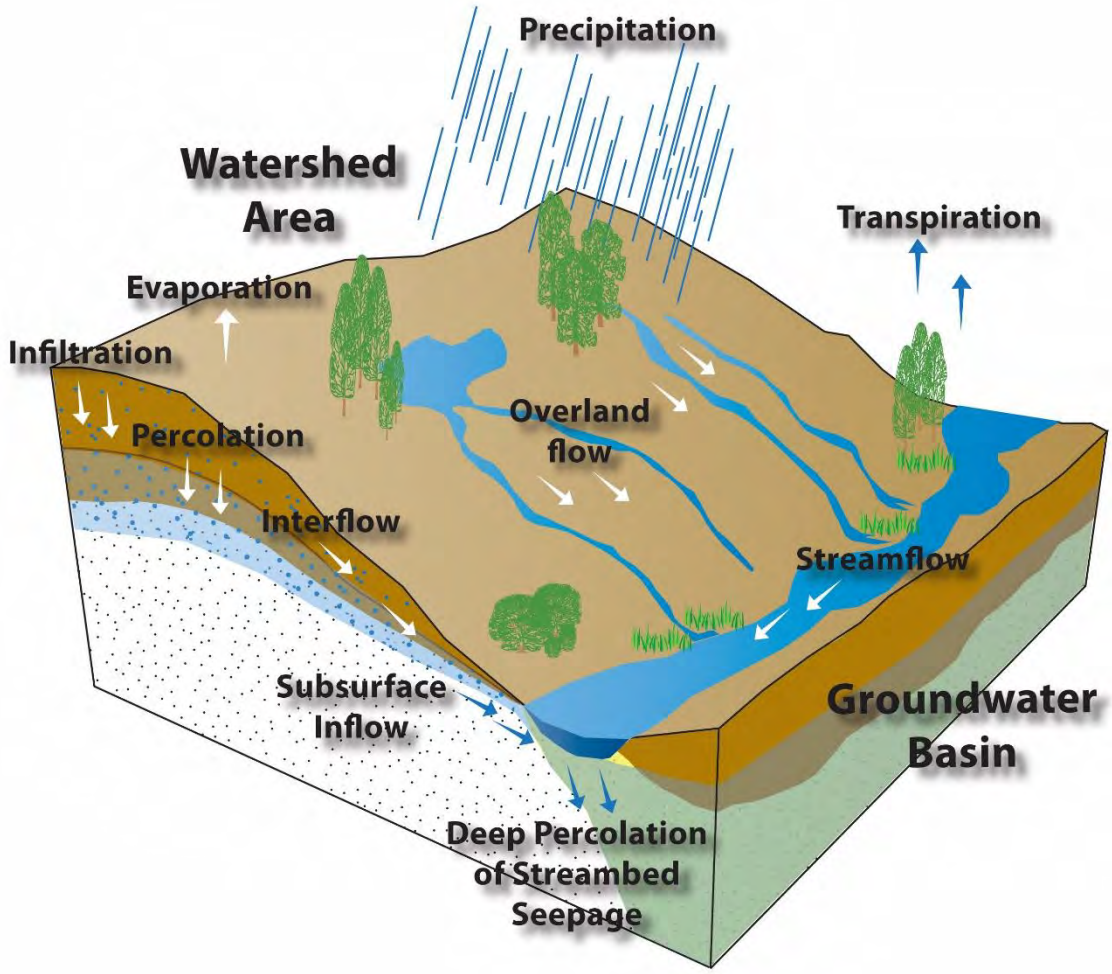

Figure 3 Illustration of HSPF Components

2.2 Data Needs for Watershed Model

Watershed hydrologic modeling requires a variety of data to characterize the water balance and hydrologic processes that occur in a watershed. These data include:

1. Land surface elevations,
2. Soil types,
3. Land use,
4. Precipitation,
5. Evaporation, (Zone map + CIMIS daily)
6. Streamflow,
7. Surface diversions, and
8. Reservoir releases

Descriptions of each data type used to develop the Upper San Luis Rey Watershed Model are provided in the following sections.

2.2.1 Land Surface Elevations

Land surface elevations were obtained by using a USGS 10-meter-by-10-meter DEM in ESRI ArcMap 10. The DEMs are used to evaluate surface water runoff patterns, and in turn to delineate the watershed and sub-watershed boundaries. Figure 4 depicts the 81 sub-watersheds delineated from the surface elevations and streams within the Upper San Luis Rey Watershed Model Boundary.

2.2.2 Soil Types

Soil type and distribution in the Basin and surrounding watershed was obtained from an ESRI shapefile of Soil Survey Geographic Database (SSURGO) hydrologic soil group information (Soil Survey Staff et al., 2020) (see Figure 5). There are four basic types of soils under this classification system (Group A through D), which are based on soil texture and properties.

- Group A soils have a high infiltration rate (low runoff potential) when thoroughly wet. They consist mainly of deep, well drained to excessively drained sands or gravelly sands and have a high rate of water transmission.
- Group B soils have a moderate infiltration rate when thoroughly wet. They consist mainly of moderately deep or deep, moderately drained soils that have moderately fine texture to moderately coarse texture and have a moderate rate of water transmission.
- Group C soils have a slow infiltration rate when thoroughly wet. They consist mainly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. They have a slow rate of water transmission.
- Group D soils have a very slow infiltration rate (high runoff potential) when thoroughly wet. They consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. Therefore, they have a very slow rate of water transmission.

2.2.3 Land Use

Land use information was obtained from the San Diego Association of Government. The land use for 1995, 2004 and 2017 (shown on Figure 6 through 8) were used to represent the land use for the modeling period from 1991 through 2000, 2001 through 2010, and 2011 through 2020, respectively.

2.2.4 Precipitation

Precipitation data were obtained from multiple precipitation stations within or outside the model boundary. Each station has varying periods and frequencies of recorded precipitation data. Three precipitation stations' data (Henshaw Dam Station, Palomar Mountain Observatory Station and Vista Station) were used for the Upper San Luis Rey Watershed Model (see Figure 9).

In addition to data from the three selected precipitation stations, gridded estimates of monthly and annual precipitation were obtained in the form of PRISM maps. PRISM (Parameter-elevation Regression on Independent Slopes Model) was developed by the National Resources Conservation Service (NRCS) National Water and Climate Center (NWCC) and the PRISM Climate Group at Oregon State University. Gridded data represents the long-term annual precipitation from 1981 through 2010. Isohyetal contours for this period was shown on Figure 9.

2.2.5 Evaporation

Evaporation zones and monthly average reference evapotranspiration (ETo) values (inches/month) for the model area were obtained from the 2017 CIMIS Reference Evapotranspiration Map for the State of California. The ETo zones displayed on the reference map represent regions of similar climate and vegetation characteristics that are used by CIMIS to define ETo values for water use and irrigation demand estimation. As shown on Figure 10, most of the modeled area is within the South Coast Marine to Desert Transition Zone (Zone 9). ETo refers to the total evaporative losses (evaporation and plant transpiration) from a reference crop, usually a short-turf grass growing with no moisture stress.

2.2.6 Streamflow

Historic daily streamflow data were obtained from two USGS gages (downloaded from the National Water Information System webpage) for varying periods of record (see Figure 11). The daily readings from these two gages (Station 11036700 San Luis Rey River Near Pauma Valley, and Station 11039800 San Luis Rey River Near Pala) were used to help calibrate the Upper San Luis Rey Watershed Model.

In addition, data for Henshaw Dam releases was used as the surface inflow, and surface diversion data from nine diversion locations were used as the surface outflow for the Watershed Model. The locations were shown on Figure 11.

2.3 Watershed Model Calibration

Model calibration is a trial-and-error process which consists of iteratively adjusting model parameters, within acceptable ranges, until the model provides a reasonable match between the model-simulated and measured data. Proper calibration is important in order to reduce uncertainty in the model results (Engel et al., 2007). The accuracy of data simulated by the calibrated model is evaluated using the techniques recommended by the authors of HSPF (AQUA TERRA, 2009).

Due to the limited data from available gaging stations, the Upper San Luis Rey Watershed Model was calibrated against measured streamflow data for the period 2008 through 2009 for Station 11036700 (downstream Pauma Valley) and for the period from 1991 through 1992 for Station 11039800 (downstream Pala). In addition, the model-calculated total volume of surface outflow through Station 11039800 was compared to observed data to further validate the model calibration. Model calibration was performed in accordance with guidelines provided by the United States Environmental Protection Agency (U.S. EPA, 2000). The major parameters adjusted during calibration of the Watershed Model included the following:

- Lower zone nominal soil moisture storage,
- Base groundwater recession,

- Fraction of groundwater inflow to deep recharge,
- Fraction of remaining ET from baseflow,
- Interflow inflow parameter,
- Lower zone ET parameter, and
- Function tables (FTABLE) which includes physical information (shape, depth, width, slope, length, Manning Factor and materials), and infiltration rates for reaches of each sub-watershed.

The calibration process also included checking the model-simulated values for each water balance recharge component; average annual values must be consistent with expected values for the watershed

2.3.1 Calibration Results

Hydrographs of model-simulated and measured monthly streamflow during the calibration period at two gaging stations are presented in Figures 13 through 16. As shown, there are similar temporal dynamics in both model-simulated and measured daily and monthly streamflow for both gaging stations, which indicates a "good" model calibration.

Standard regression analysis, known as the Pearson's coefficient of determination, "Goodness-of-Fit" or r-squared (R^2), was used to evaluate how well the calibrated Basin Watershed Model simulated streamflow. This technique provided an indication of the strength of the linear relationship between model-simulated and measured monthly streamflow data. The R^2 value was calculated through scatter plots generated for measured and simulated monthly streamflow at two streamflow gaging stations. Results, summarized in Table 1 below, indicate there is a "good" match between the model-simulated and measured streamflow at San Luis Rey River near Pauma Valley gaging Station and a "good" match at the San Luis Rey River near Pala Station.

Table 2-1. Summary of the Watershed Model Calibration

Gage Name and Number	Daily Streamflow		Monthly Streamflow	
	Goodness-of-Fit (R^2)	Model Calibration Performance	Goodness-of-Fit (R^2)	Model Calibration Performance
San Luis Rey River Near Pauma Valley (Station No. 11036700)	0.83	Good	0.89	Very Good
San Luis Rey River Near Pala (Station No. 11039800)	0.76	Good	0.98	Very Good

Note: Performance criteria were determined based on Aqua Terra Consultants (2009).

Figure 17 compares the measured annual streamflow volume at Station 11039800 with the model-calculated annual streamflow volume. The mean residual is only about 3% of the average of measured volume. This further verify the calibration of the Upper San Luis Rey Watershed Model.

3.0 Upper San Luis Rey Groundwater Model

3.1 Conceptual Model

A conceptual model is the basis for building the structure of a groundwater model so that it best represents the hydrogeologic system. The conceptual understanding of the geohydrology, inflows (recharge) and outflows (discharge) for the USLRGM was described in detail in the Basin Setting Chapter of the GSP. Based on the local geology, three model layers were delineated for the USLRGM, including:

- Layer 1: Younger Alluvium and Alluvial Fan Deposits,
- Layer 2: Lakebed Deposits, and
- Layer 3: Older Alluvium

3.2 Model Codes

The USLRGM was constructed using MODFLOW, a block-centered, modular finite-difference groundwater flow code. Widely used and highly versatile, it was developed by the USGS (McDonald and Harbaugh, 1988) for the purpose of modeling both saturated and unsaturated groundwater flow. Specifically, the Newton formulation of the MODFLOW-2005 computer code, known as MODFLOW-NWT, was used for the USLRGM. The Newton-Raphson solver included in the MODFLOW-NWT code is well suited for solving problems involving drying and rewetting nonlinearities of the unconfined groundwater flow equation (Niswonger et al., 2011).

MODFLOW is modular in the sense that a standard format has been established for the interface between each module of the program, as well as the common variables that must be accessible to all modules. The modules or packages used include Basic (BAS), Evapotranspiration (EVT), Streamflow Routing (STR), Upstream Weighting (UPW), Recharge (RCH), Newton Solver (NWT), Horizontal Flow Barrier (HFB), Multi-Node Well 2 (MNW2), Well (WEL), and General-Head Boundary (GHB). The input data for the MODFLOW-NWT modules is based on a monthly basis (i.e., monthly stress periods) from January 1966 through December 2016. The monthly stress periods provide the ability to model the seasonal aspects of fluxes such as areal recharge, return flow, pumping, mountain front runoff, underflow, and streambed percolation.

3.3 Model Pre- and Post-Processors

The pre- and post-processors used to manipulate model input and output data arrays include the following:

- Geographical Information System (GIS);

- Groundwater Vistas; and
- Proprietary software developed by GEOSCIENCE.

The GIS software used was ESRI ArcMap 10.5. Groundwater Vistas, which was developed by Environmental Simulations, Inc. (1999), is a Windows graphical user interface for 3-D groundwater flow and transport modeling. FORTRAN source codes, custom-developed by GEOSCIENCE, were used to prepare MODFLOW model input data for the well and recharge packages and hydraulic conductivities.

3.4 Model Grids and Cells

The USLRGM domain covers an area of approximately 140 square miles (90,000 acres) with a finite-difference grid consisting of 450 rows in the northeast to southwest direction and 845 columns in the northwest to southeast direction. The grid cell size is 100 ft x 100 ft (Figure 1).

3.5 Boundary Conditions

A boundary condition is any external influence or effect that acts either as a source or sink, adding or removing water from the groundwater flow system. Boundary conditions are used to simulate the model's interaction with the surrounding regional system. The boundary conditions used in this model include no-flow, general-head, stream, and well (see Figures 18). The no-flow cells assigned to the non-alluvial or low permeability bedrock portions of the model area are depicted as gray on Figure 18. A general-head boundary, shown in green on Figure 18, was used to represent groundwater underflow outflow to Bonsall Basin. Stream cells (shown in blue on Figure 18) were used to simulate streambed percolation recharge from San Luis Rey River. The locations of pumping wells, included in well boundary condition, are shown as red squares on Figure 18. In addition, the mountain front recharge (shown in purple) and artificial recharge (shown in light blue) are also included in the well boundary condition.

3.6 Aquifer Parameters

The initial development of aquifer parameters was based on previous studies and cross sections developed during the development of this GSP. During the USLRGM calibration, these initial aquifer parameter values were refined through iterative manual adjustments within pre-established upper and lower bounds in order to minimize the residuals between measured and model-calculated groundwater levels. The calibrated aquifer parameters for the USLRGM are provided in the following sections.

3.6.1 Model Layer and Basement Elevations

The base elevations of each model layer were determined from the cross-sections, discussed in detail in the Basin Setting Chapter, developed using lithologic data from geophysical borehole logs and driller's logs (Figure 19).

3.6.2 Hydraulic Conductivity

The calibrated horizontal hydraulic conductivity values are shown for each model layer on Figure 20. The calibrated horizontal hydraulic conductivity generally ranges from approximately 20 ft/day to 500 ft/day. The vertical hydraulic conductivity values are assumed to be 1/10 of the horizontal hydraulic conductivity values.

3.6.3 Specific Yield and Storativity

Specific yield, or secondary storage coefficient, is used in unconfined aquifers while storativity is used for confined aquifers. For the USLRGM, Layer 1 was set to be unconfined aquifer, and Layers 2 and 3 were set to be convertible between unconfined aquifers and confined aquifers based on model-simulated water levels and aquifer thicknesses. Values for both specific yield and storativity were set in the USLRGM, and the model uses the appropriate value based on whether the aquifer is confined or unconfined. Spatial distributions of specific yield for Model Layers 1 through 3 are shown on Figure 21. As shown, the specific yield ranges from 0.03 to 0.20. A constant specific storativity value of 0.00001 was set for Layer 2 and Layer 3 if they are converted to confined aquifer during the transient model simulation.

3.7 Recharge and Discharge

Table 3-1 shows the recharge and discharge components in the USLRGM as well as the MODFLOW package used to simulate the terms.

Table 3-1. USLRGM Groundwater Basin Model Recharge and Discharge Components

	Term	MODFLOW Package Used
INFLOW (RECHARGE)	Deep Percolation of Streambed Percolation	Stream Flow Routing Package
	Deep Percolation from Direct Precipitation	Recharge Package
	Anthropogenic Return Flow	Recharge Package
	Recharge from Mountain Front Runoff	Well Package
	Artificial Recharge (Spreading Basins)	Well Package
OUTFLOW (DISCHARGE)	Groundwater Pumping	Well Package
	Evapotranspiration by Riparian Vegetation	ET Package
	Subsurface Outflow through the Basin Boundary	General Head Boundary

3.7.1 Deep Percolation of Streambed Seepage

Streambed percolation from San Luis Rey Reiver to the Basin was simulated by the USLRGM using the Streamflow Routing Package. The Streamflow Routing Package routes tributary inflows through the stream network, shown on Figure 16, and simulates streambed percolation based on streamflow, streambed conductance, and groundwater level. All initial inflow values from San Luis Rey River and its tributaries were based on Upper San Luis Rey Watershed Model and were further adjusted during USLRGM calibration. Model-calculated recharge from streambed percolation averaged 6,007 acre-ft/yr

for the model calibration period. Negative numbers in the water budget table (Table 1) indicate net volume of rising water from groundwater basin to San Luis Rey River.

3.7.2 Deep Percolation of Direct Precipitation and Anthropogenic Return Flow

Deep percolation from direct precipitation, or areal recharge and anthropogenic return flow were applied to the uppermost active model layer of the USLRGM using the Recharge Package. The deep percolation from direct precipitation was calculated by the Upper San Luis Rey Watershed Model described in Section 2. Return flow was calculated by multiplying the groundwater pumping (or applied water) by a return flow factor based on different land use. The return flow factors used were listed below (Stetson Engineers, 2016):

- Commercial/Industrial/Public Facilities: 0.13
- High Density Residential: 0.09
- Low Density Residential: 0.11
- Agricultural: 0.18

Table 1 lists annual recharge for the model calibration period of 1991 through 2020. The average annual inflows were 3,790 acre-ft/yr and 2,689 acre-ft/yr for deep percolation from direct precipitation and anthropogenic return flow, respectively.

3.7.3 Recharge from Mountain Front Runoff

The amount of recharge from mountain front runoff was calculated by the Upper San Luis Rey Watershed Model, discussed in Section 2, and was applied to the USLRGM using the Well Package. Table 1 lists annual recharge from mountain front runoff for the model calibration period of 1991 through 2020, and the annual average was 7,051 acre-ft/yr.

3.7.4 Artificial Recharge via Spreading Ponds

Artificial recharge via spreading ponds was estimated to be 228 acre-ft/yr within the USLRGM (see Table 1). This includes recorded values for Pauma Valley spreading ponds and unrecorded recharge in Rincon and Pala area. The unrecorded recharge volumes from spreading ponds were estimated from groundwater pumping (or applied water), and applying an assumed 40% indoor usage factor, 60% sewer connection factor, and 95% treatment plant recovery factor.

3.7.5 Groundwater Pumping

The groundwater pumping was simulated by the USLRGM using the Well Package. It includes the recorded historical pumping from Yuima Municipal Water District, Rancho Pauma MWC, Pauma Valley MWC, Lazy H MWC, Rancho Estates MWC, Lyall and Agua Tibia, and unrecorded pumping from private agricultural irrigation wells and pumping within Indian Reservations (Pauma, Rincon and Pala). The unrecorded private agricultural pumping was estimated from land use in three different time snapshots of 1998, 2008 and 2018, and agricultural groundwater demand factors (in the unit of acre-ft/acre) published by County of San Diego Department of Planning and Land Use in 2010 (County of San Diego, 2010). The total recorded pumping and estimated unrecorded pumping was used as the model input of the USLRGM, and the model calculated the actual groundwater pumping (as the model output) based on simulated water levels for each simulation month. The difference between the model input and

model output reflects the Imported Water used, in additional to the groundwater supply, to meet the total water demand. Figure 22 illustrates the model-calculated annual groundwater pumping within the USLRGM area. As shown, the average annual pumping is approximately 14,260 acre-ft/yr.

3.7.6 Evapotranspiration by Riparian Vegetation

Figure 18 shows the locations of evapotranspiration (ET) by riparian vegetation model cells. ET from a groundwater system generally decreases with decreasing groundwater elevation and is at its highest in areas where groundwater elevations approach or exceed land surface. ET is simulated in the USLRGM using the Evapotranspiration Package. In a given model cell, ET ranges from the maximum ET rate at land surface to zero at a specified ET extinction depth. The outflow from ET depends on the proximity of the water table to land surface and the type of riparian vegetation present in the area. During the model calibration period, the model-calculated ET averaged 2,269 acre-ft/yr.

3.7.7 Subsurface Outflow through the Basin Boundary

Subsurface outflow through the Basin boundary was incorporated into the USLRGM using the General Head Boundary (GHB). A total of 17 model cells are assigned as general head cells to simulate the subsurface outflow to the Bonsall Basin (see Figure 18). The annual average subsurface outflow was 4,780 acre-ft/yr (see Table 1).

3.8 Model Calibration

3.8.1 Model Calibration Process and Results

Model calibration is performed to improve the accuracy of the model in simulating observed groundwater levels. The method used to calibrate the USLRGM was the industry standard “history matching” technique in which hydrogeologic parameters are manually varied until the best fit is achieved for transient conditions. These parameters included horizontal and vertical hydraulic conductivities, specific yield, and GHB and streambed conductance. The USLRGM was calibrated for the period January 1991 through December 2020.

The USLRGM calibration included an initial condition simulation, or model spin-up period, with model input from January 1991. The goal of the initial condition model run was to develop a numerically stable initial condition, in good agreement with observed water levels, for the beginning of the transient calibration run. The initial condition calibration was developed using a trial-and-error approach as described by Danskin and others (2005). The initial water level for January 1991 is shown on Figure 23.

Hydrographs for the calibration for selected wells are shown on Figure 24. In general, the water levels calculated by the calibrated USLRGM match well with the measured water levels. Figure 25 shows measured versus model-calculated water levels. As shown, the 2,590 groundwater level measurements from 52 wells are mainly clustered around a diagonal line (representing where measured water levels match model-calculated water levels) and within a band of plus/minus one standard deviation water level residual (i.e., +/- 71.20 ft). This reflects what is considered in groundwater flow modeling to be a good match between measured and model-calculated water levels. The good calibration is supported by a low relative error of 8.4%. The relative error is determined from the water level residuals (i.e., observed water level less model-calculated water level) and is the standard deviation of the residuals

divided by the range in observed values. Common modeling practice considers the calibration to be a good fit if the relative error is less than 10% (Spitz and Moreno, 1996; and Environmental Simulations, Inc., 1999).

3.8.2 Water Budget

The water budgets from the transient model calibration are presented in Table 1 and annual average water budgets from 1991 to 2020 is depicted on Figure 26. As shown, the annual average total inflow and outflow are 19,765 acre-ft/yr and 21,313 acre-ft/yr, respectively for the modeling period from 1991 through 2020, which results in an average decrease in change in storage of 1,548 acre-ft/yr.

4.0 Upper San Luis Rey Groundwater Model Limitations and Uncertainty

The USLR Watershed and Groundwater Models are useful tools for evaluating water levels and storage of the USLR Valley aquifer system. However, they are simplified approximations of complex hydrogeologic systems and have been designed with certain built-in assumptions. The accuracy of the predictions made by the integrated model is highly dependent on the simplifying assumptions used. In addition, the modeling results are not absolutes, but are indications that will need to be confirmed by actual operations, monitoring and refinement through an adaptive management process.

A reliable watershed or groundwater model depends upon accurate and abundant sources of measured data and a satisfactory calibration and/or validation period. Often, in absence of complete or accurate records, model input represents estimated and/or averaged values. Future use of an extended data set and calibration period should continue to improve the accuracy and reliability of the model.

5.0 References

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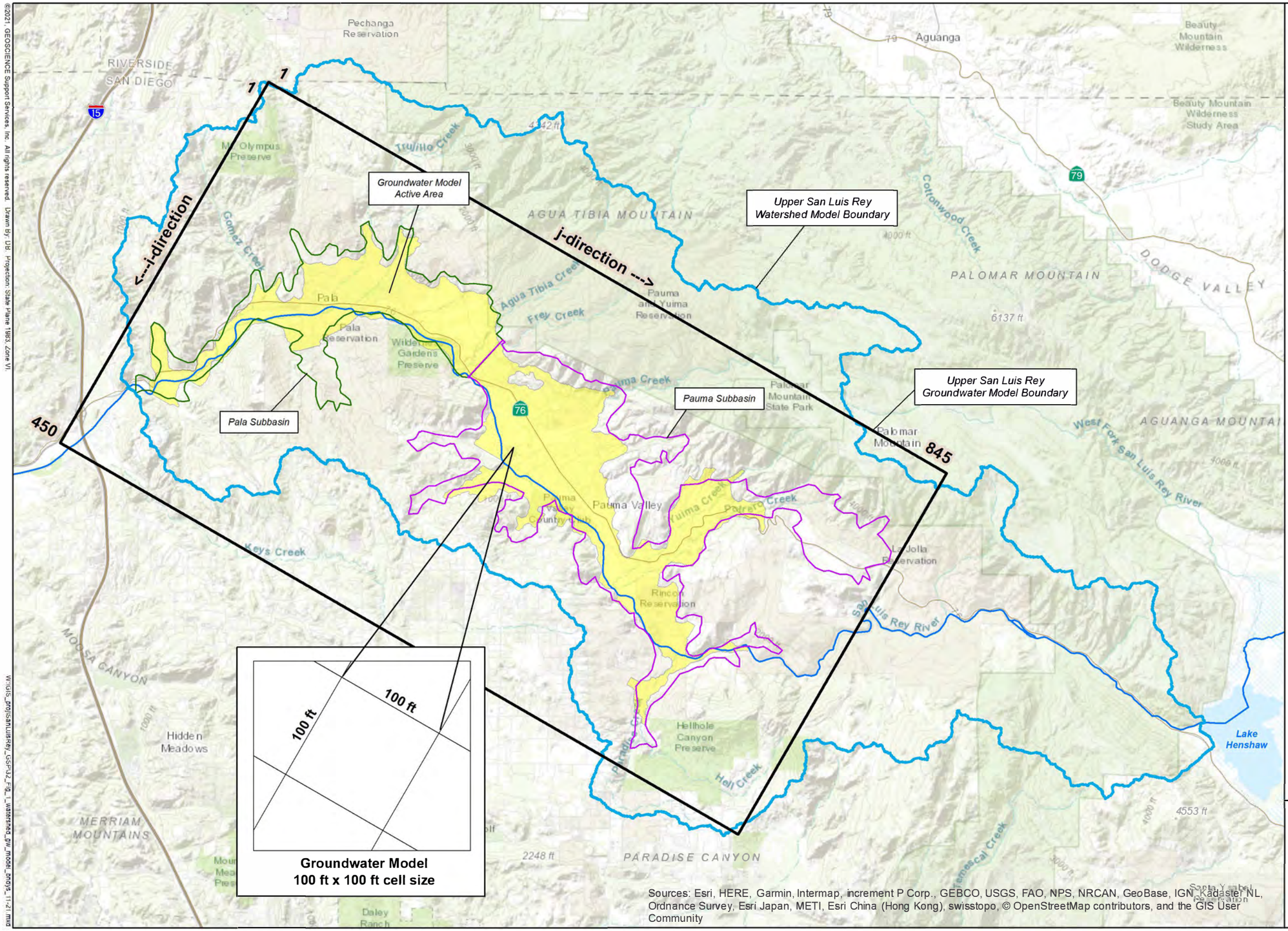
FIGURES

GEOSCIENCE



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Upper San Luis Rey Groundwater Model (USLRGM) Boundary 450 X 845 X 3 Layers = 1,140,750 cells
- Upper San Luis Rey Groundwater Model (USLRGM) Active Model Area
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

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UPPER SAN LUIS REY WATERSHED AND GROUNDWATER MODEL BOUNDARIES (USLRGM)

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PAUMA VALLEY GSA

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 1

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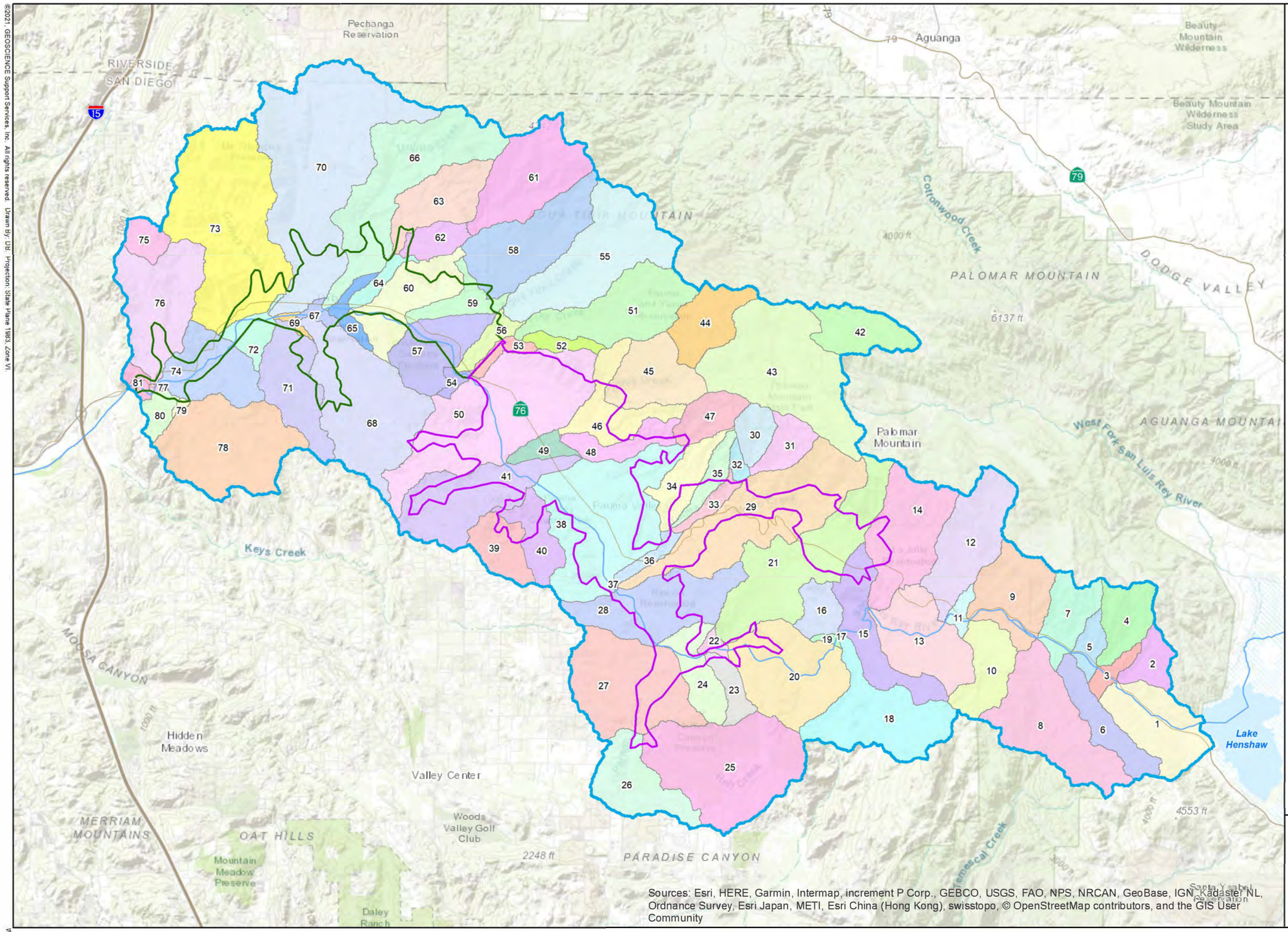

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- 14 — Sub-Watershed Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

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SUB-WATERSHED BOUNDARIES

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DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 4

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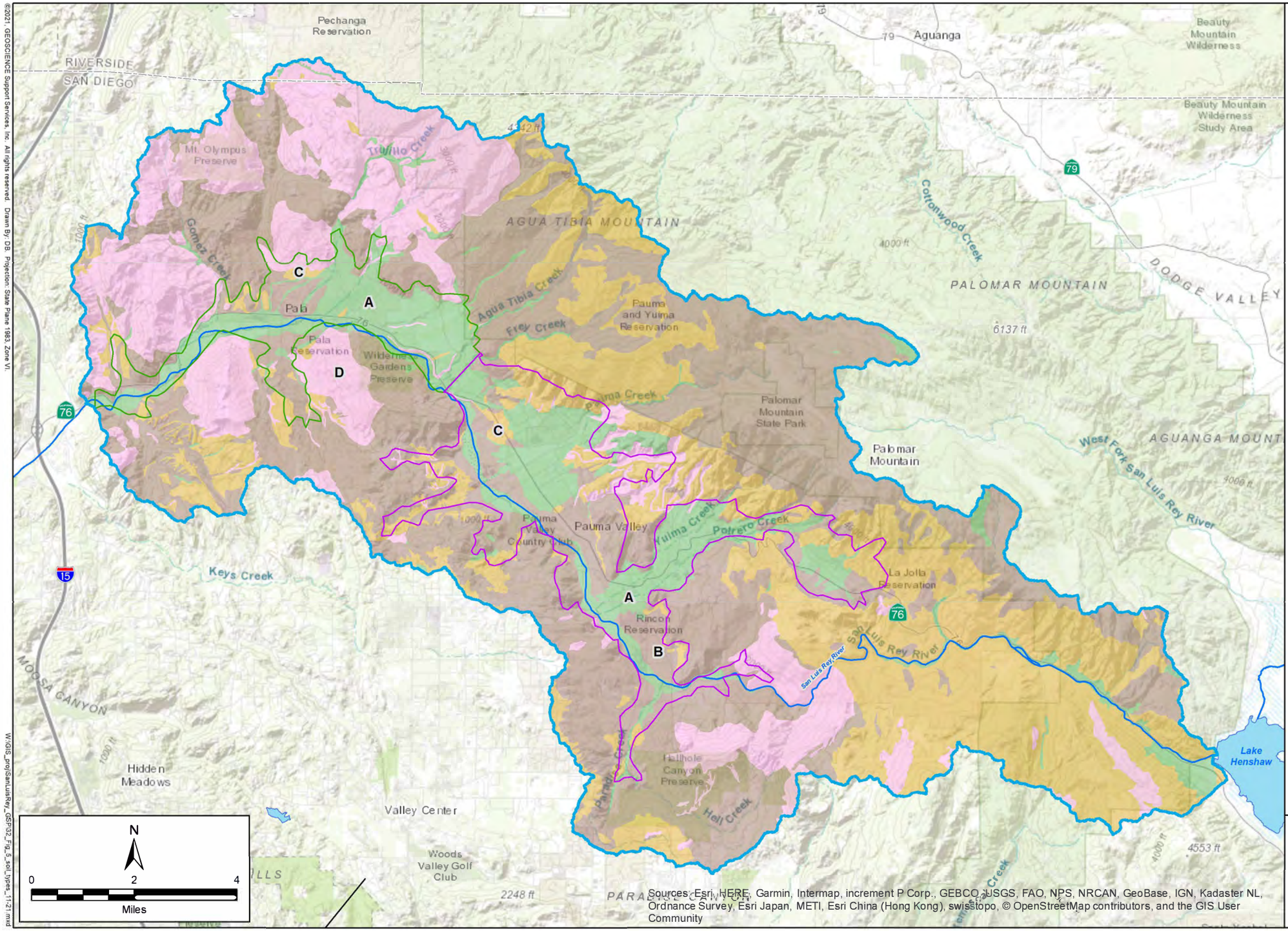

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

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Jan-22

EXPLANATION

Upper San Luis Rey Watershed Model Boundary

Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)

Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

Soil Survey Geographic (SSURGO) Soil Type (Soil Survey Staff et al., 2020)

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

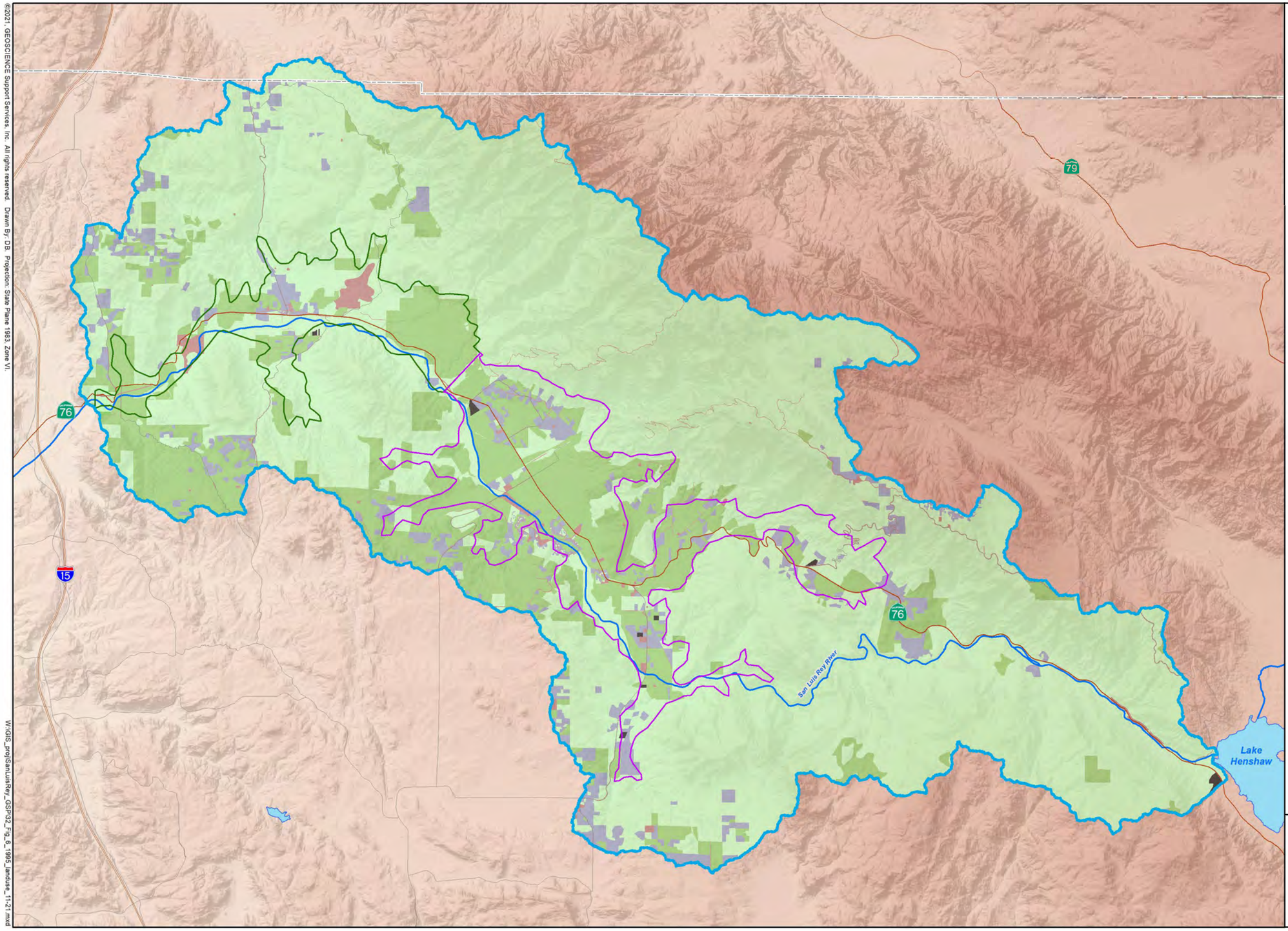
SOIL HYDROLOGIC GROUPS

PAUMA VALLEY GSA

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 5

GEOSCIENCE



EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

Land Use Type (SANDAG, 1995 and SCAG, 1993)

- Agriculture
- Commercial / Industrial / Public Facilities
- Open Space
- Residential - High Density
- Residential - Low Density

N

0 2 4

Miles

LAND USE 1995

W:\GIS_proj\SanLuisRey_GSP\32_Fig_6_1995_landuse_11-21.mxd

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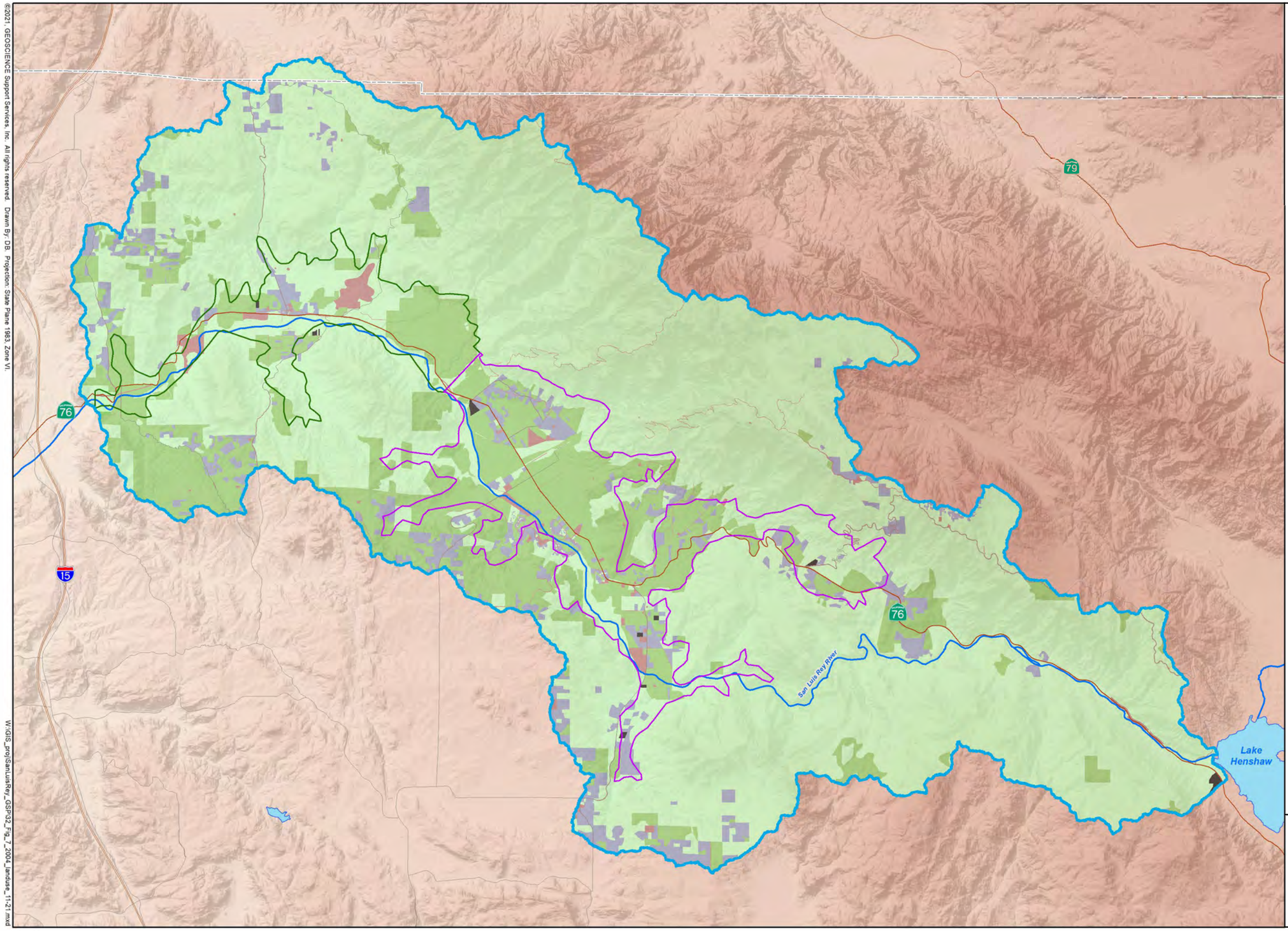
PAUMA VALLEY GSA

FIGURE 6

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

GEOSCIENCE



EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

Land Use Type (SANDAG, 2004 and SCAG, 2005)

- Agriculture
- Commercial / Industrial / Public Facilities
- Open Space
- Residential - High Density
- Residential - Low Density

N

0 2 4

Miles

LAND USE 2004

W:\GIS_proj\SanLuisRey_GSP\32_Fig_7_2004_landuse_11-21.mxd

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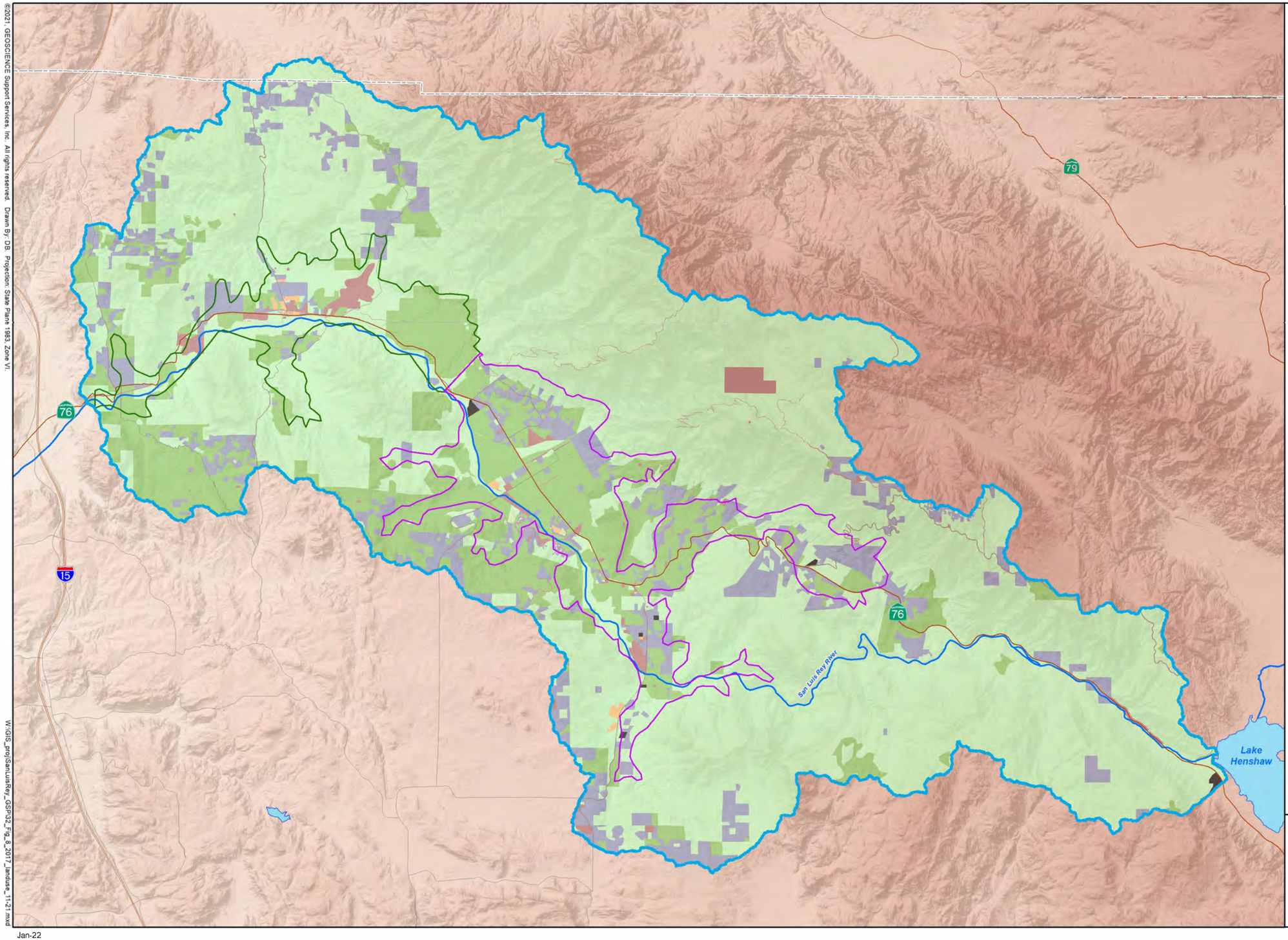
FIGURE 7

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

GEOSCIENCE



EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)

Land Use Type (SANDAG, 2017 and SCAG, 2016)

- Agriculture
- Commercial / Industrial / Public Facilities
- Open Space
- Residential - High Density
- Residential - Medium Density
- Residential - Low Density

N

0 2 4

Miles

LAND USE 2017

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DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 8

GEOSCIENCE

PALOMAR MOUNTAIN OBSERVATORY, CA US

VISTA, CA US

HENSHAW DAM, CA US

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)
- ▲ Precipitation Station Location
- 1.02 Sub-Watershed Boundary and Precipitation Adjustment Factor
- — 12 — Average Annual Precipitation, in. (1981-2010 PRISM)

Colors of sub-watersheds represent which designated precipitation station was used.

- Henshaw Dam
- Palomar Mountain Observatory
- Vista

N

0 3 6

Miles

PRECIPITATION STATION LOCATIONS AND PRISM PRECIPITATION ADJUSTMENT FACTORS

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DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 9

GEOSCIENCE

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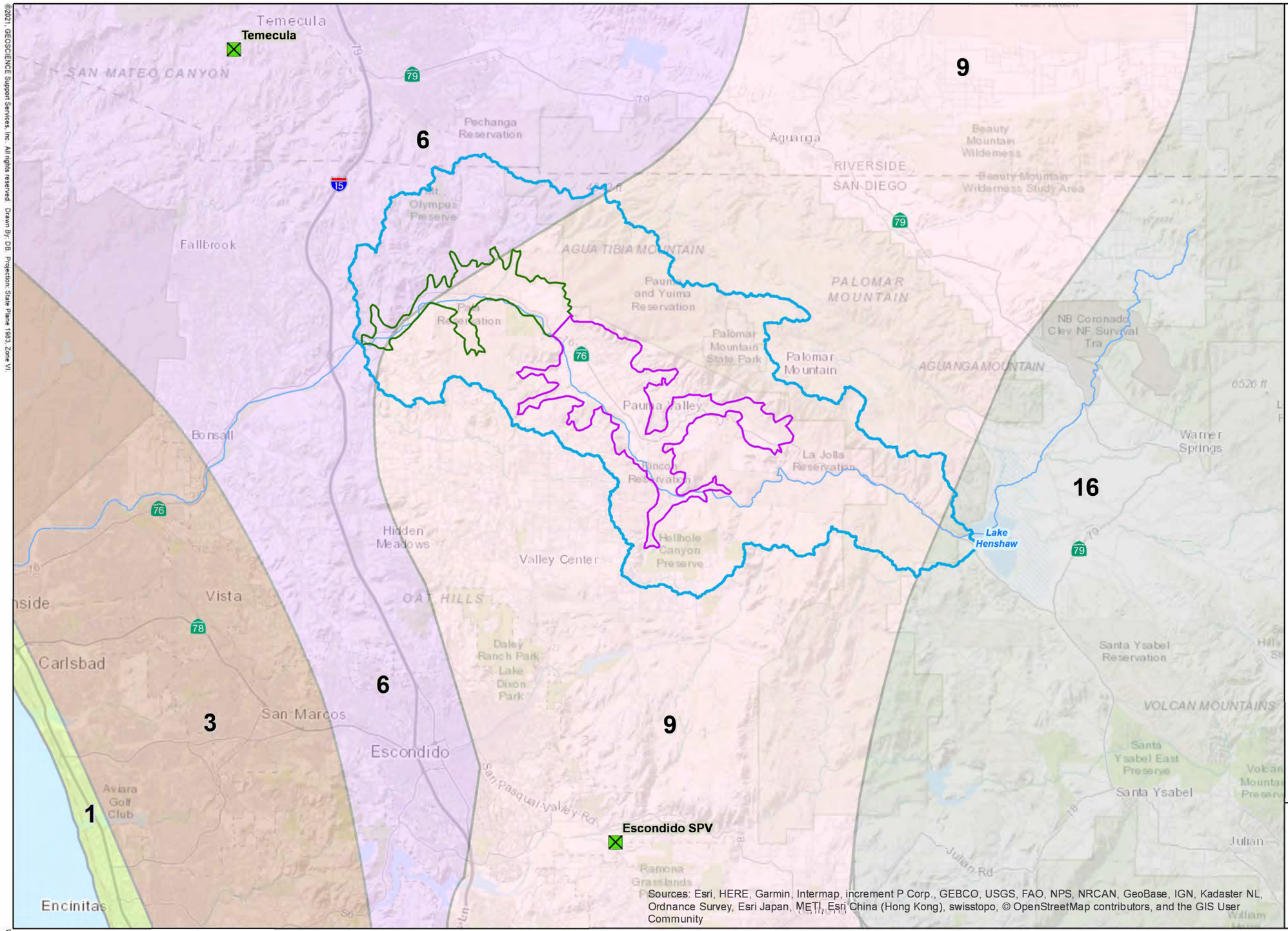

EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)
- Evaporation Station Location

Evapotranspiration (ETo) Zones
(Source: CIMIS 2017)

- 1 — Coastal Mixed Fog Belt
- 3 — Coastal Valleys and Plains and North Coast Mountains
- 6 — Upland Central Coast and Los Angeles Basin
- 9 — South Coast Marine to Desert Transition
- 16 — Westside San Joaquin Valley & Mountains East & West of Imperial Valley

N

0 3.5 7

Miles

EVAPORATION STATION LOCATIONS AND REFERENCE EVAPOTRANSPIRATION ZONES

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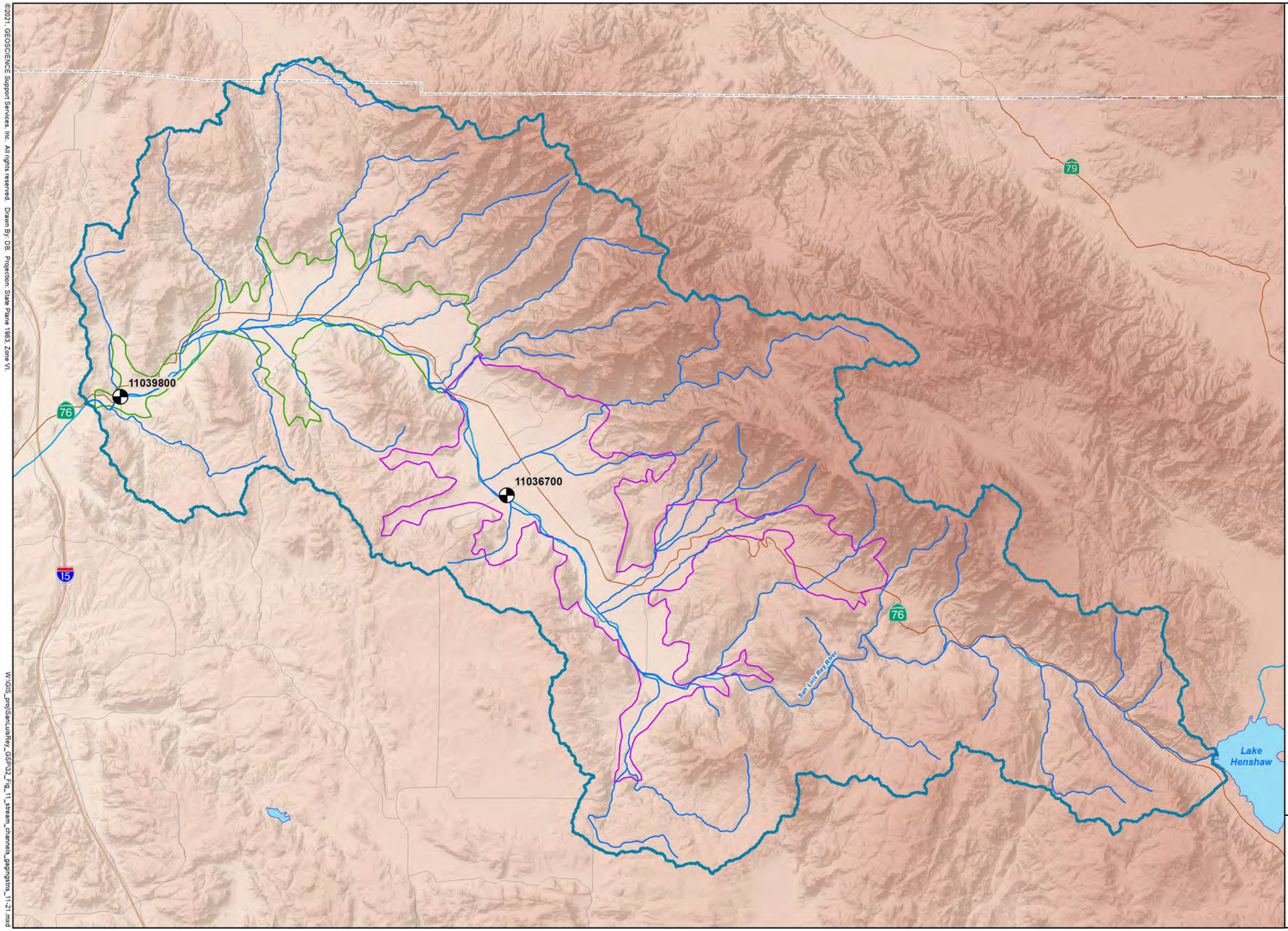
DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 10

GEOSCIENCE



EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)
- Gaging Station Location
  - 11036700 - San Luis Rey R A Cole Grade Rd NR Pauma Valley CA
  - 11039800 - San Luis Rey R A Couser Cyn BR NR Pala CA
- Stream Channel

N

0 2 4

Miles

STREAM CHANNEL TYPES AND GAGING STATION LOCATIONS

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FIGURE 11

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

GEOSCIENCE

Agua Tibia Ranch Diversion at Marion Creek

Agua Tibia Ranch Diversion at Aqua Tibia Creek

Lyall Enterprises Diversion at Pauma Creek

Lyall Enterprises Diversion at Pauma Creek

Lyall Enterprises Diversion at Pauma Creek

YMWD Diversion at Harrison Creek

YMWD Diversion at Yuima Creek

YMWD Diversion at Yuima Creek

Escondido Canal Diversion

Henshaw Dam Release

Lake Henshaw

San Luis Rey River

76

79

15

EXPLANATION

- Upper San Luis Rey Watershed Model Boundary
- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)
- Location of Lake Henshaw Release and Surface Diversions
- Stream Channel

N

0 2 4

Miles

LAKE HENSHAW RELEASE AND SURFACE DIVERSION

W:\GIS_proj\SanLuisRey_GSP\32_Fig_12_Henshaw_release_surf_diverions_11-21.mxd

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DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 12

GEOSCIENCE

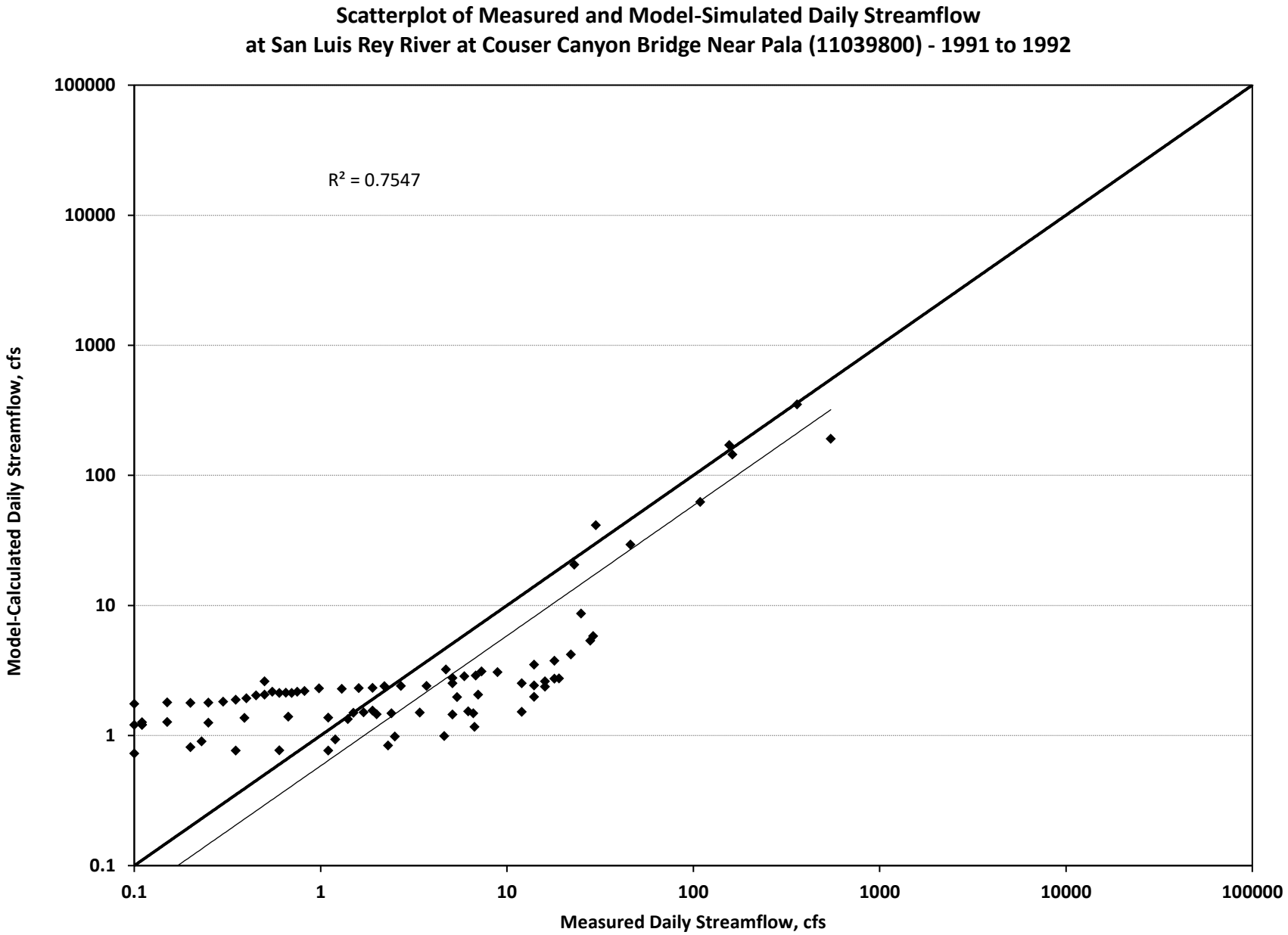

Scatterplot of Measured and Model-Simulated Daily Streamflow
at San Luis Rey River at Couser Canyon Bridge Near Pala (11039800) - 1991 to 1992
R² = 0.7547
Model-Calculated Daily Streamflow, cfs
Measured Daily Streamflow, cfs
100000
10000
1000
100
10
1
0.1
0.1
1
10
100
1000
10000
100000

Figure 13

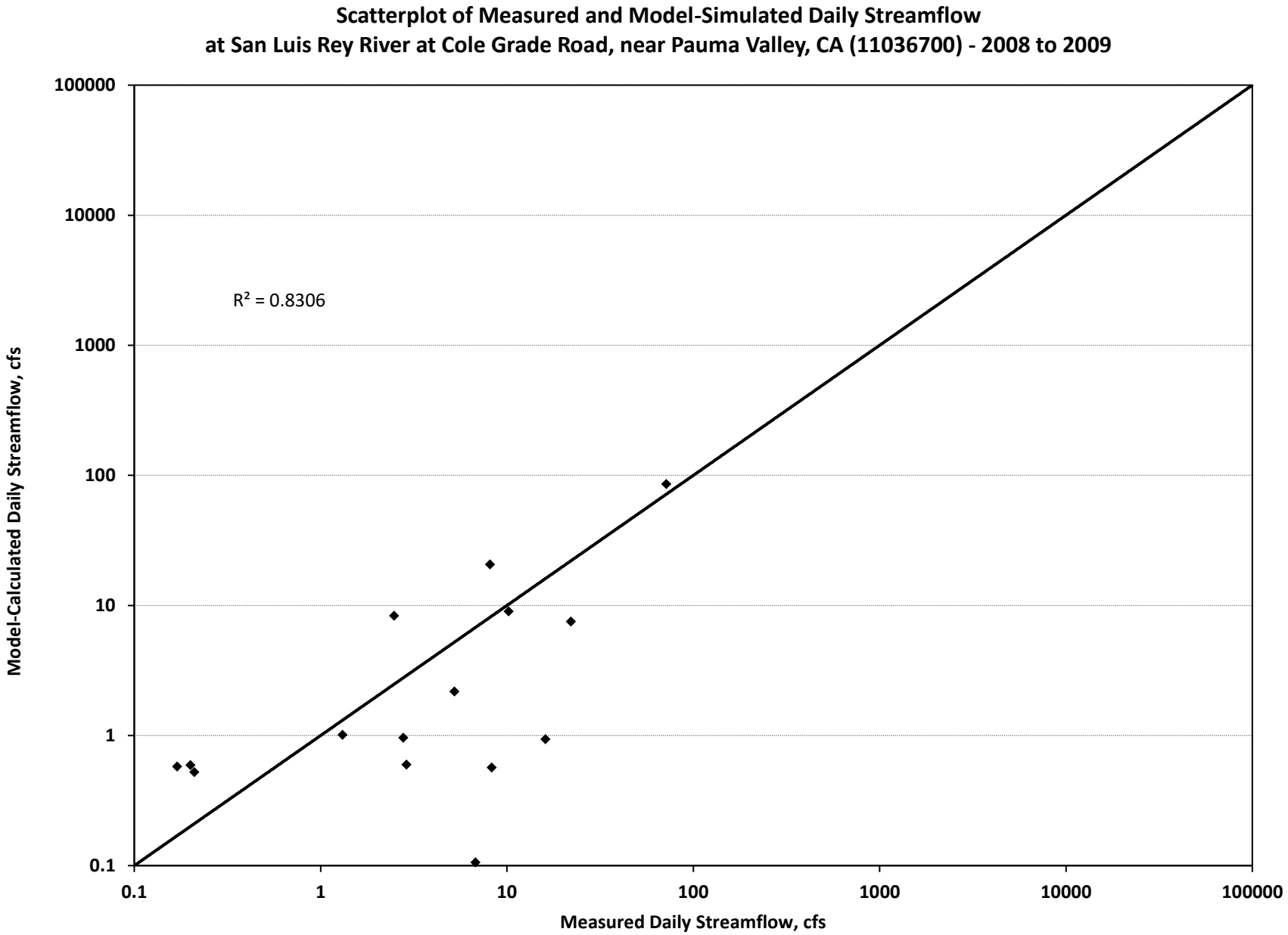

Scatterplot of Measured and Model-Simulated Daily Streamflow
at San Luis Rey River at Cole Grade Road, near Pauma Valley, CA (11036700) - 2008 to 2009
R² = 0.8306
Model-Calculated Daily Streamflow, cfs
Measured Daily Streamflow, cfs
100000
10000
1000
100
10
1
0.1
0.1
1
10
100
1000
10000
100000

Figure 14

Scatterplot of Measured and Model-Simulated Monthly Streamflow at San Luis Rey River at Couser Canyon Bridge Near Pala (11039800) - 1991 to 1992

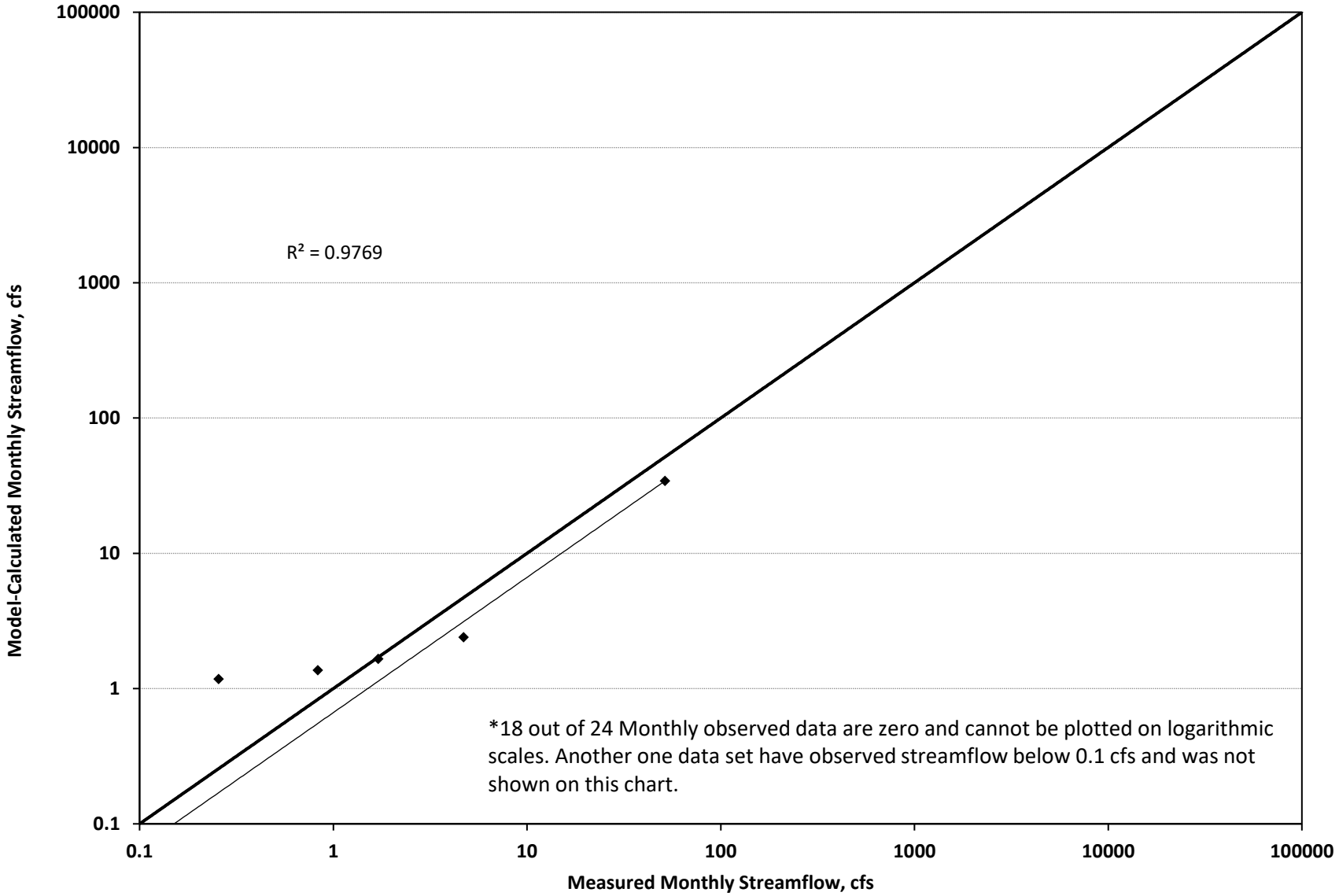


Figure 15

Scatterplot of Measured and Model-Simulated Monthly Streamflow at San Luis Rey River at Cole Grade Road, near Pauma Valley, CA (11036700) - 2008 to 2009

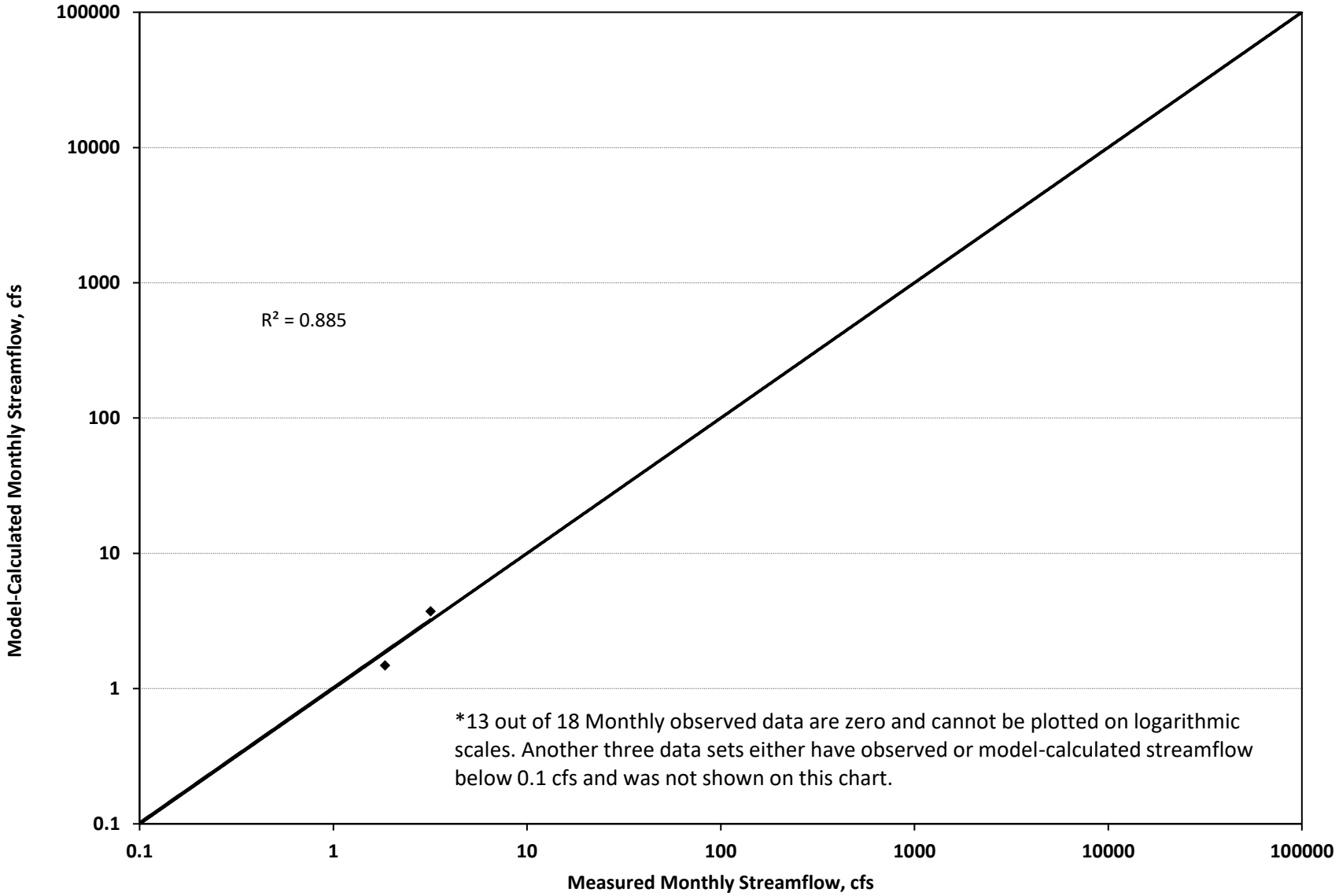


Figure 16

Annual Total Measured and Model-Simulated Annual Total Streamflow
at San Luis Rey River at Couser Canyon Bridge Near Pala
Calendar Years 1991 to 1992

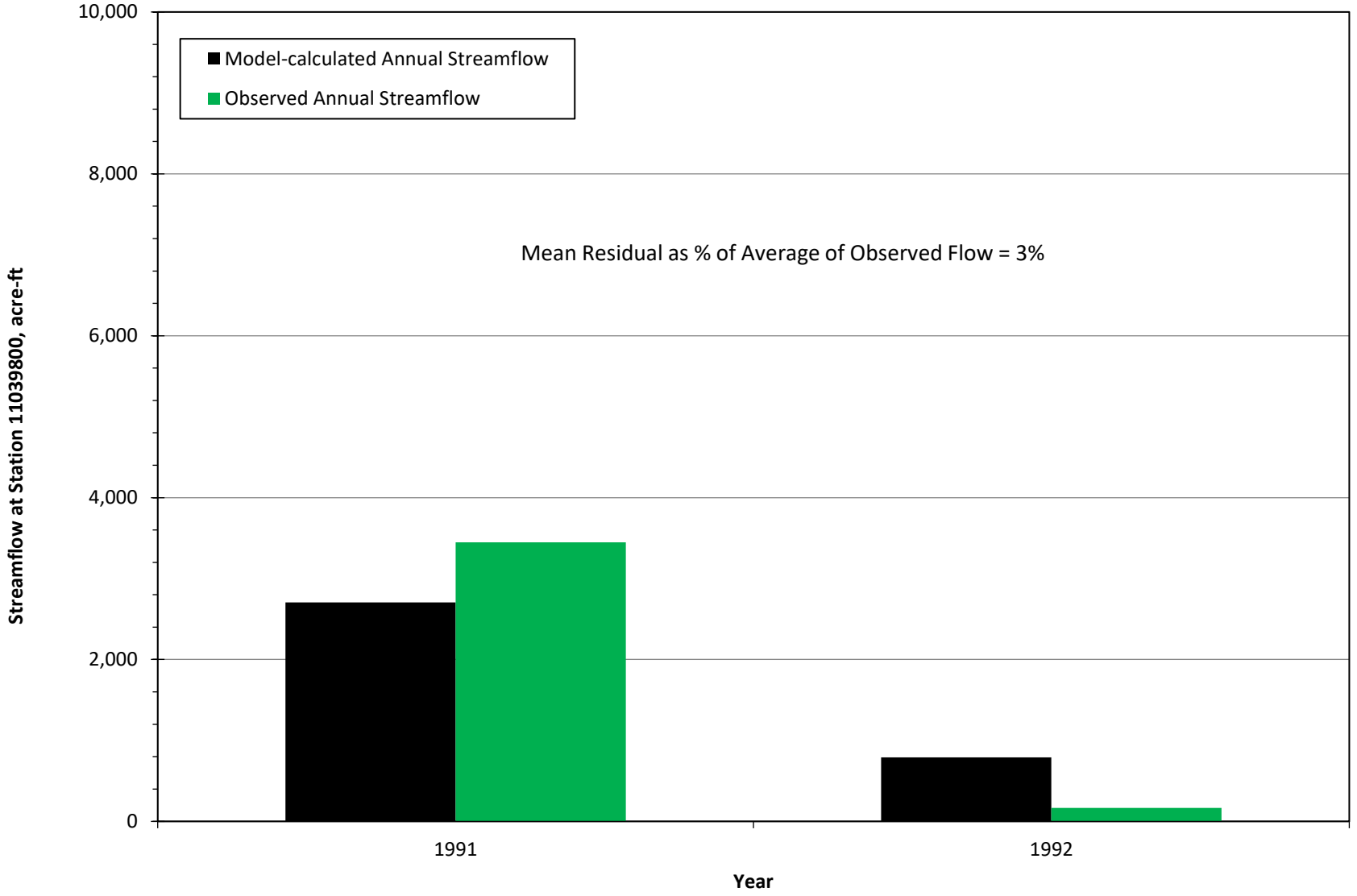
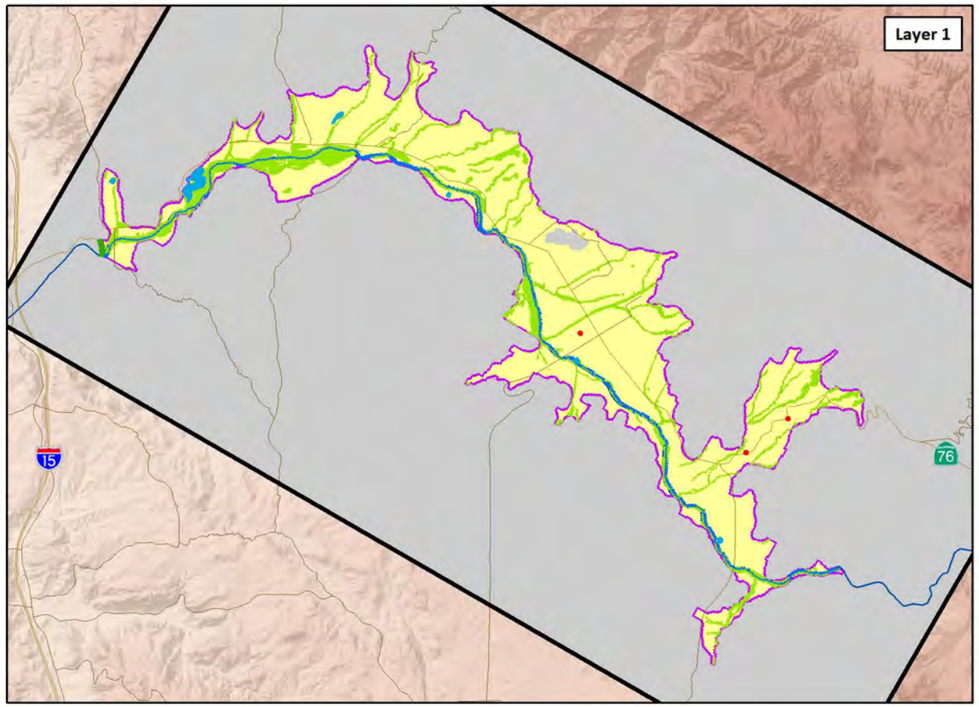
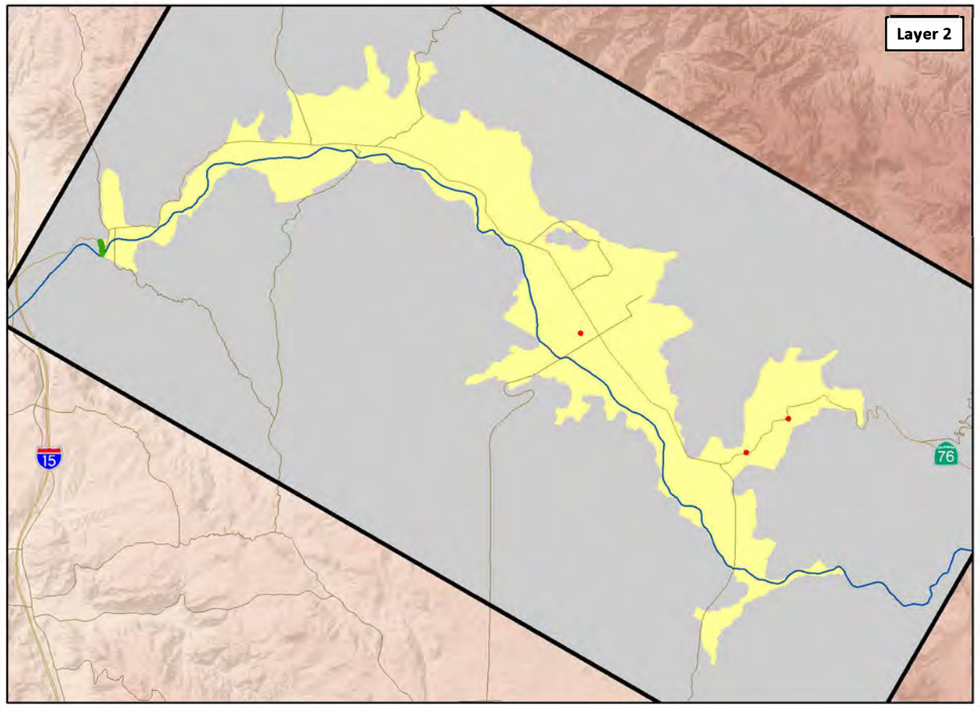
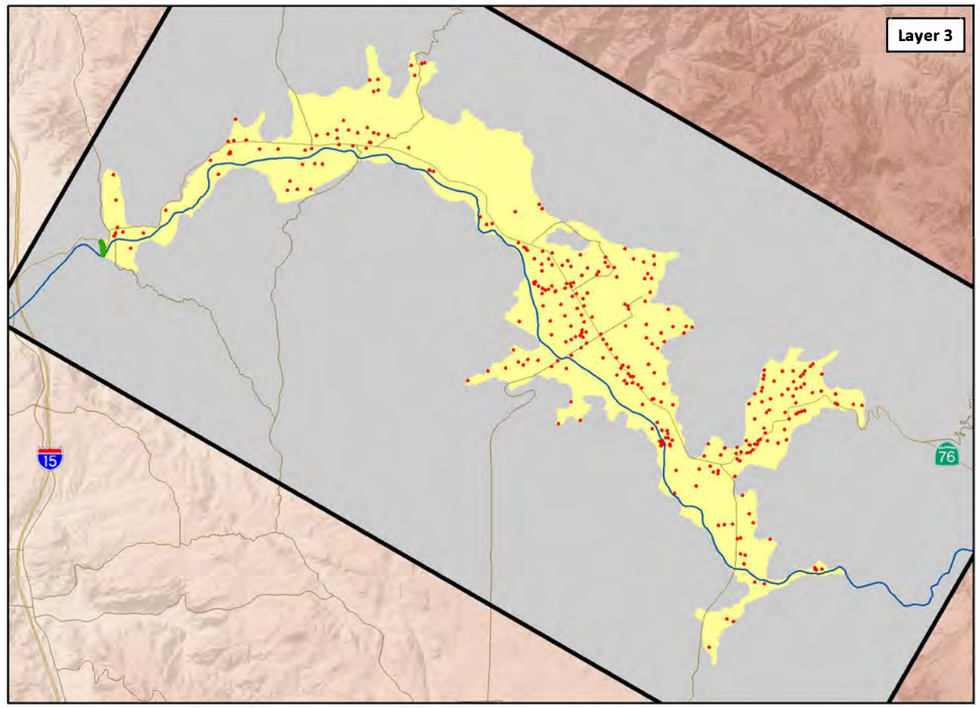


Figure 17







EXPLANATION

Boundary Conditions

- General-Head Boundary
- Stream
- Mountain Front Recharge
- Artificial Recharge
- Production Well
- Active Evapotranspiration Area

- Upper San Luis Rey Groundwater Model Boundary
- Active Model Area
- Inactive Model Area

- San Luis Rey River

N

0 2.5 5

Miles

BOUNDARY CONDITIONS

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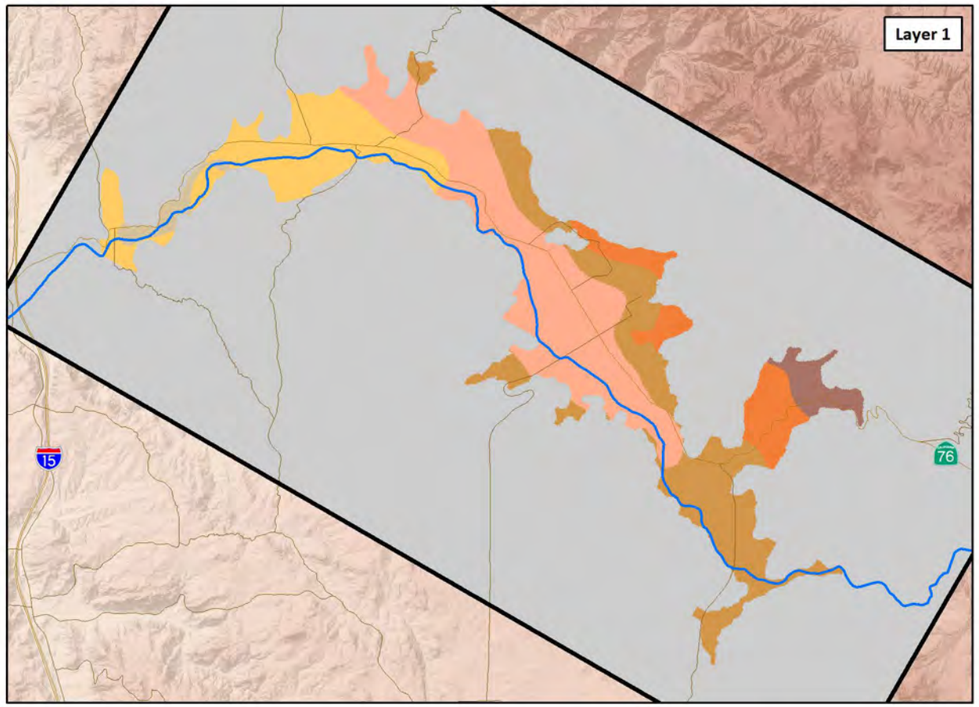
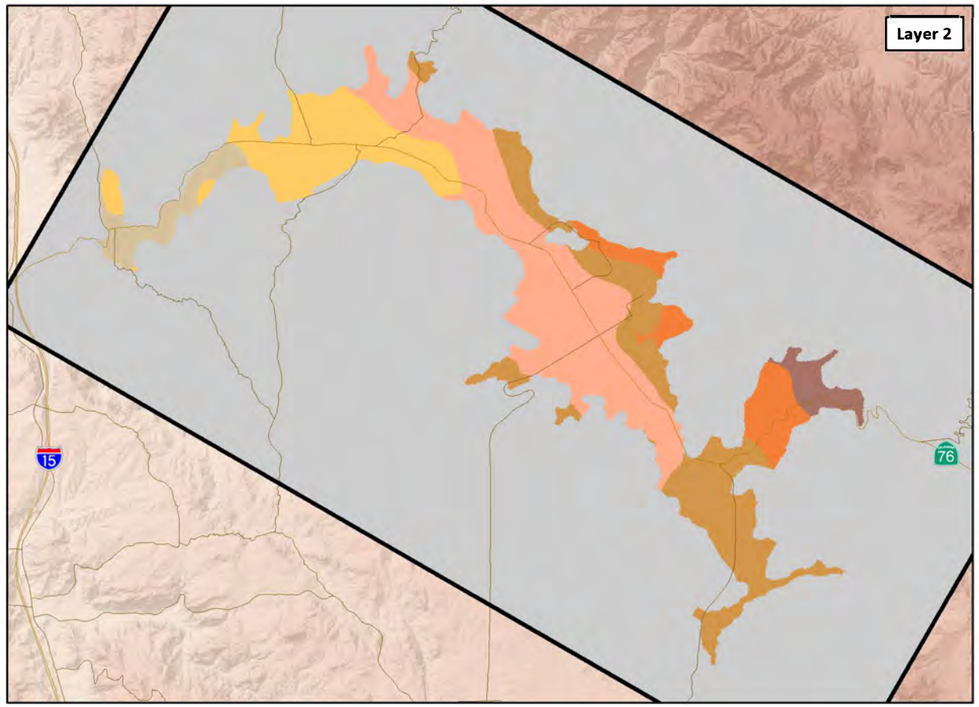
FIGURE 18

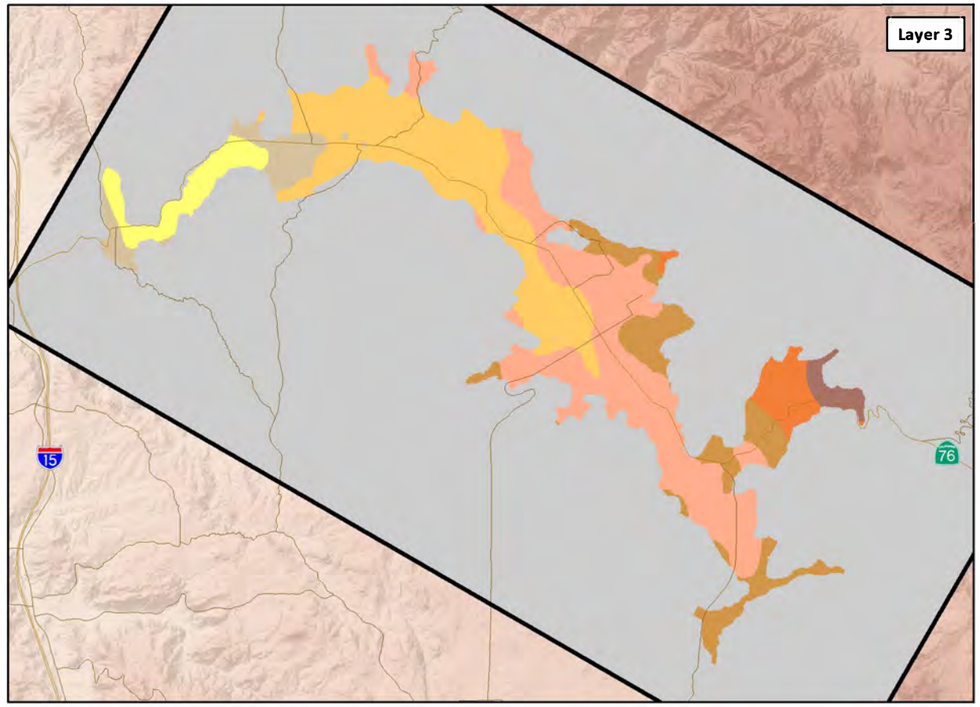
DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

Jan-22

GEOSCIENCE







EXPLANATION

Bottom Layer Elevations (ft amsl)

- < 200
- 200 - 250
- 250 - 500
- 500 - 750
- 750 - 1,000
- 1,000 - 1,500
- 1,500 - 2,100

Upper San Luis Rey Groundwater Model Boundary

Inactive Model Area

San Luis Rey River

N

0 2.5 5

Miles

LAYER ELEVATIONS

W:\GIS_proj\SanLuisRey_GSP\32_Fig_19_layer_elev_3panel_11-21.mxd

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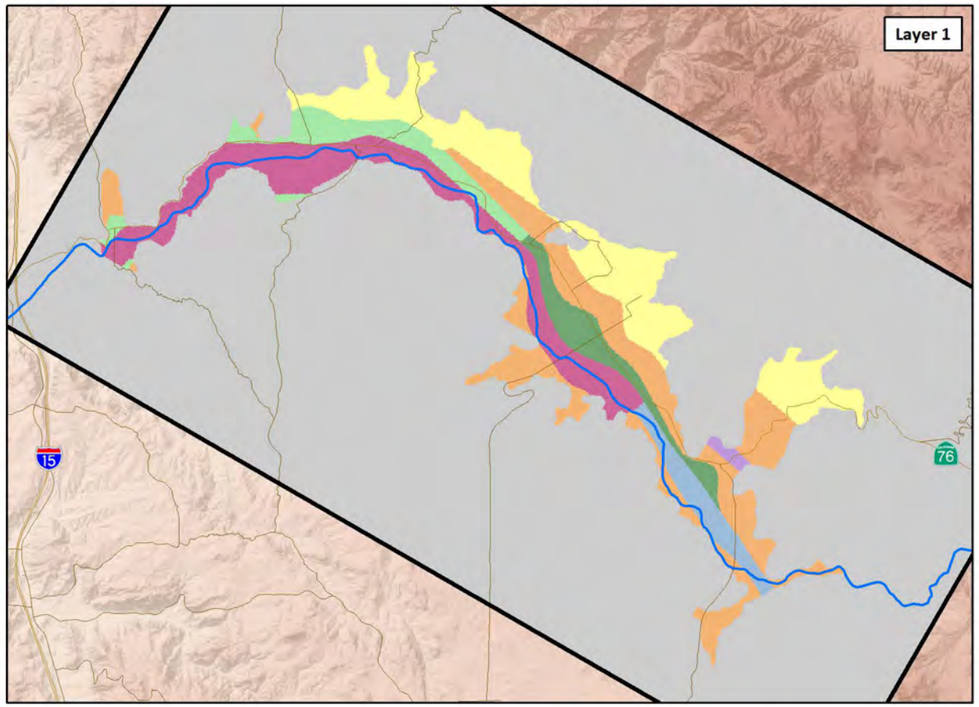
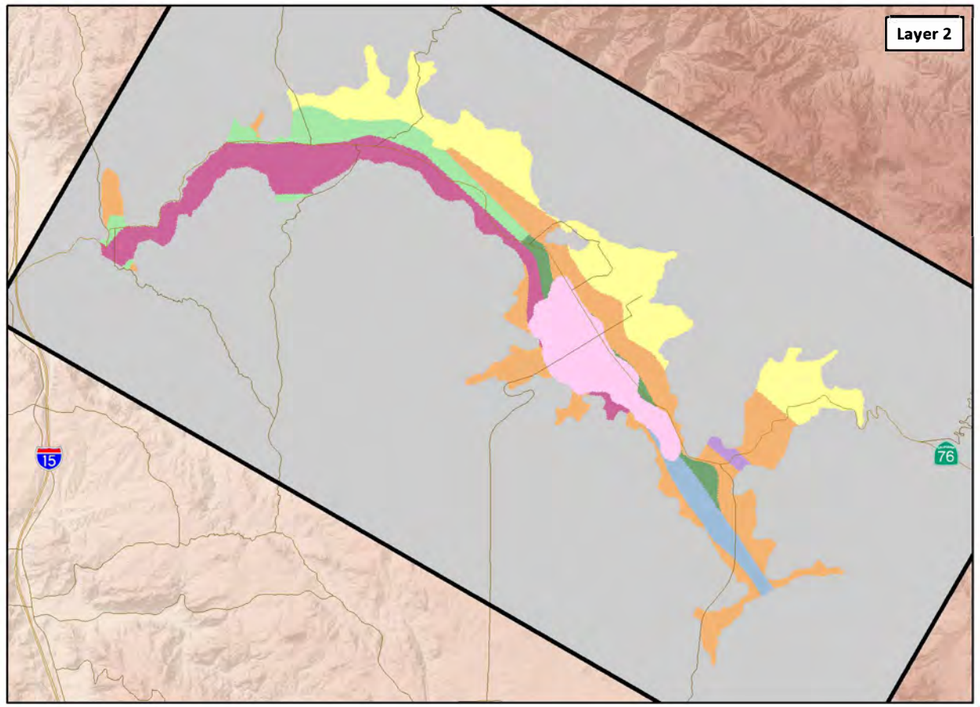
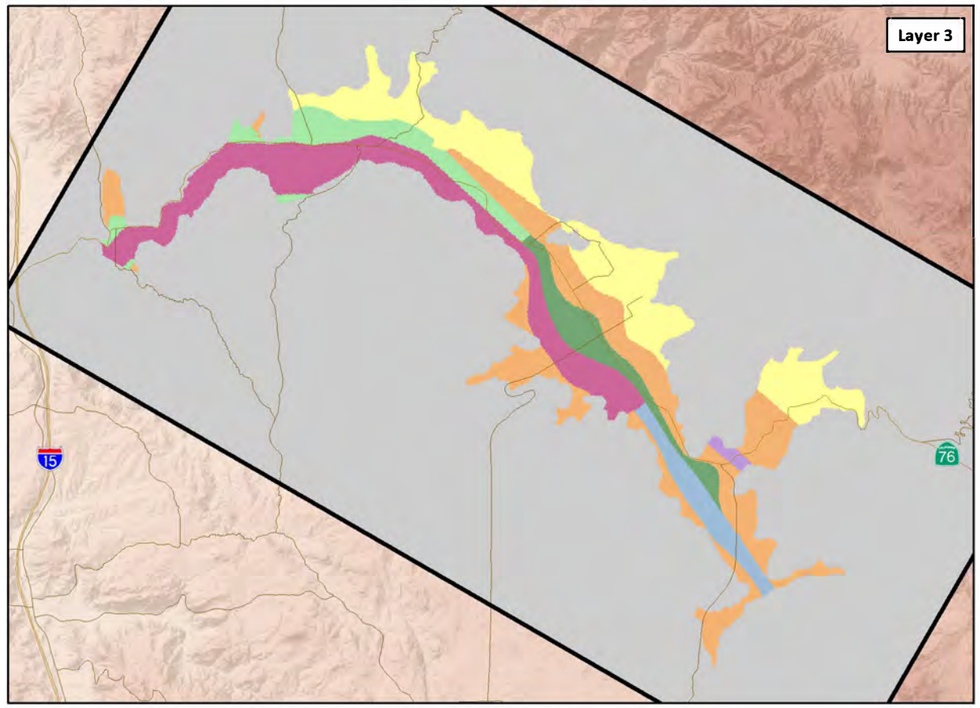
FIGURE 19

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

GEOSCIENCE







EXPLANATION

Horizontal Hydraulic Conductivity (ft/day)

- < 1
- 1 - 10
- 10 - 20
- 20 - 50
- 50 - 100
- 100 - 200
- 200 - 400
- > 500

Upper San Luis Rey Groundwater Model Boundary

Inactive Model Area

San Luis Rey River

N

0 2.5 5

Miles

HORIZONTAL HYDRAULIC CONDUCTIVITY

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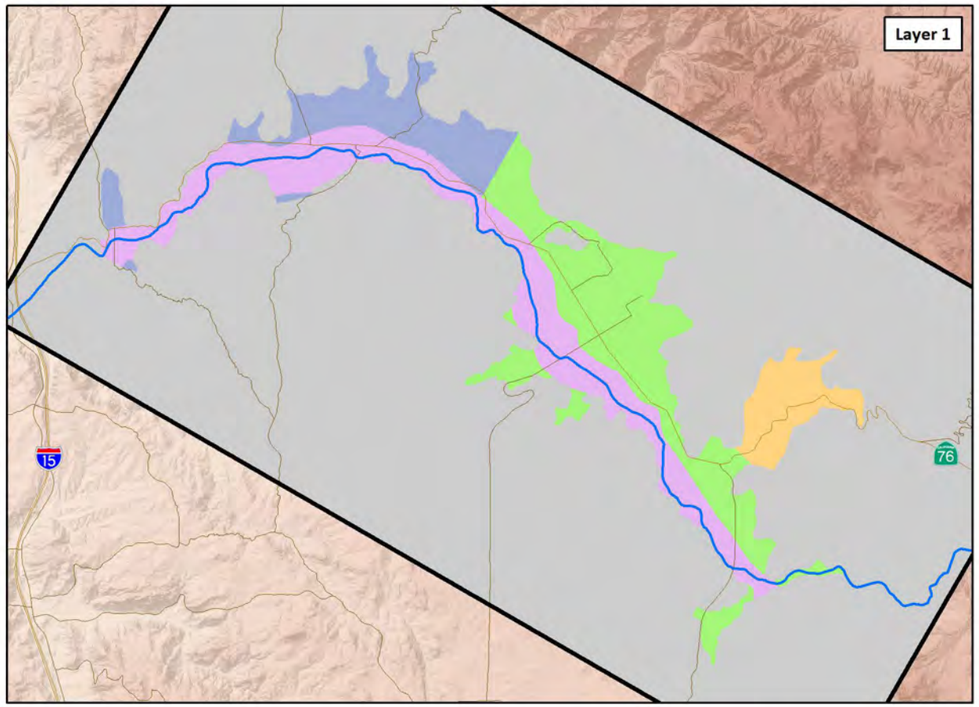
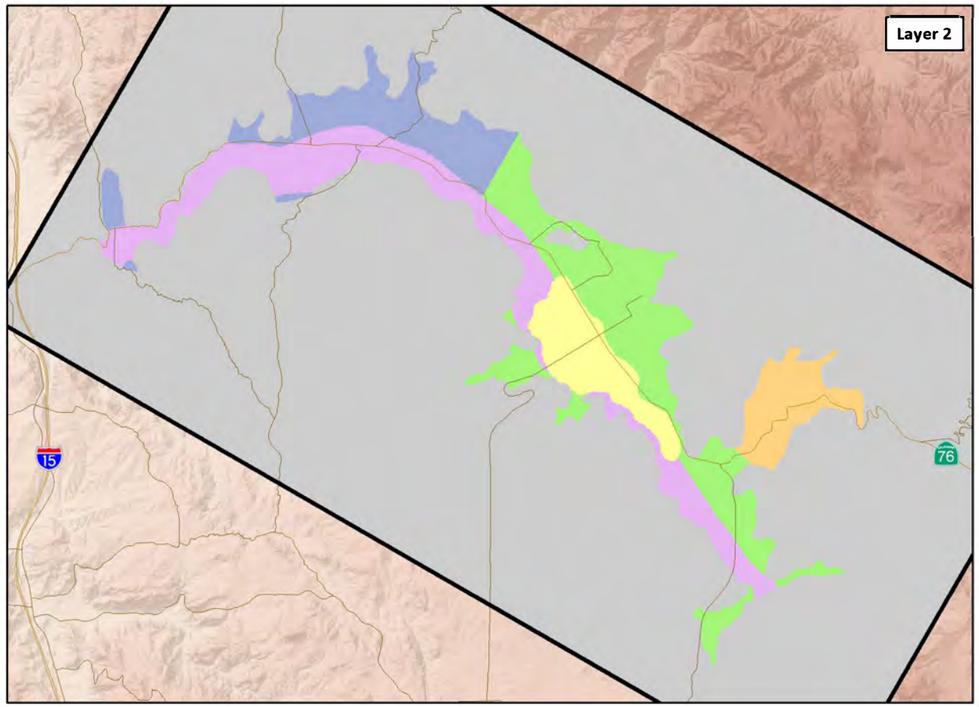
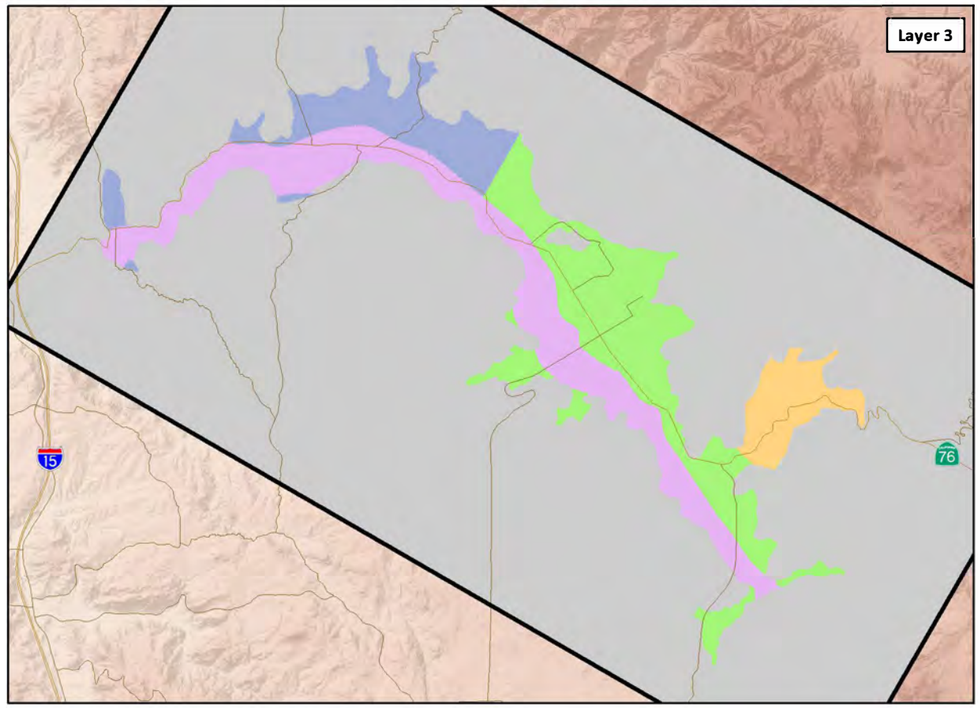
DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 20

GEOSCIENCE







EXPLANATION

Specific Yield, unitless

- 0.03
- 0.09
- 0.10
- 0.12
- 0.20

Upper San Luis Rey Groundwater Model Boundary

Inactive Model Area

San Luis Rey River

N

0 2.5 5

Miles

SPECIFIC YIELD

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DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

FIGURE 21

GEOSCIENCE

Model-Calculated Annual Groundwater Pumping
1991 through 2020

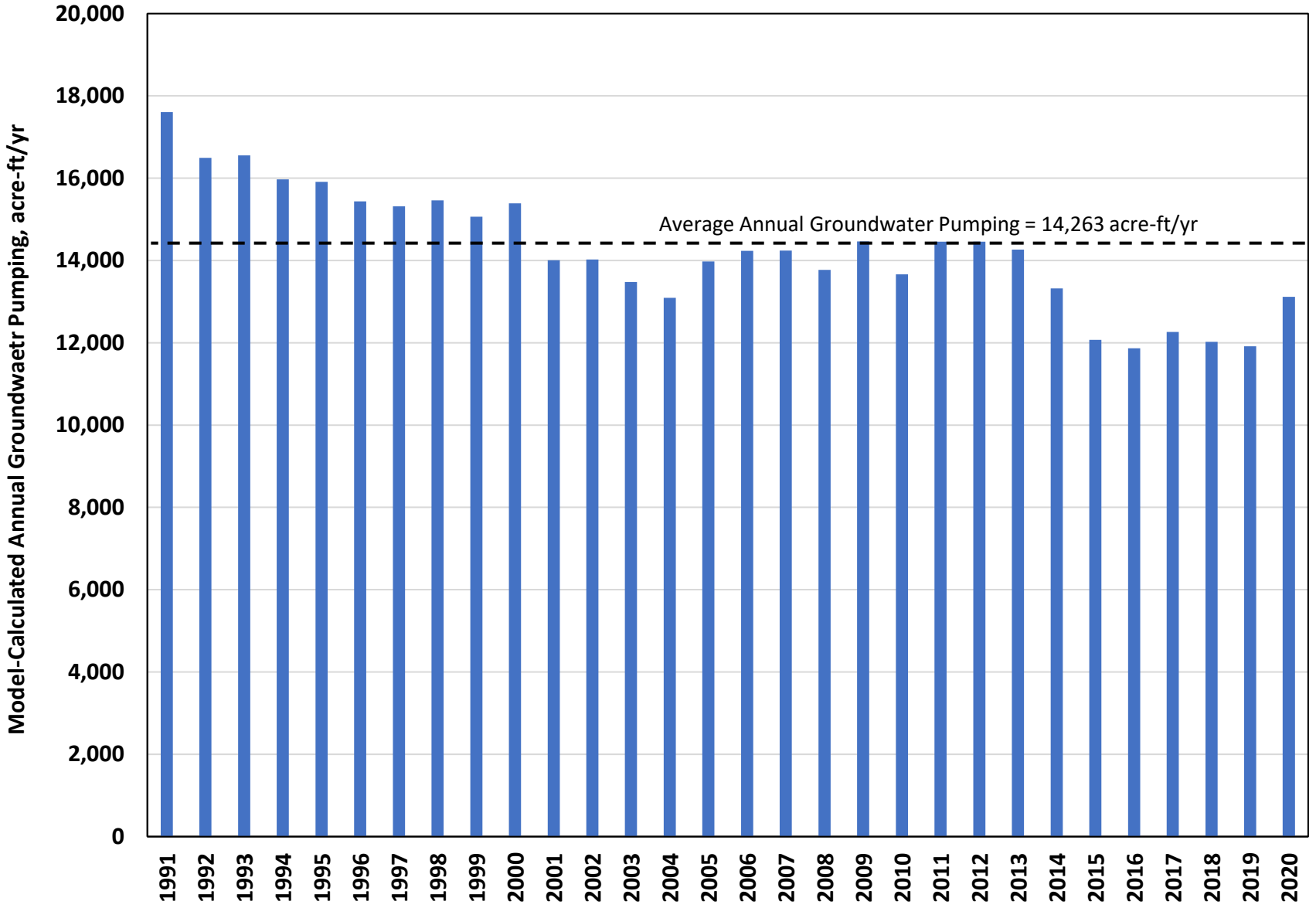
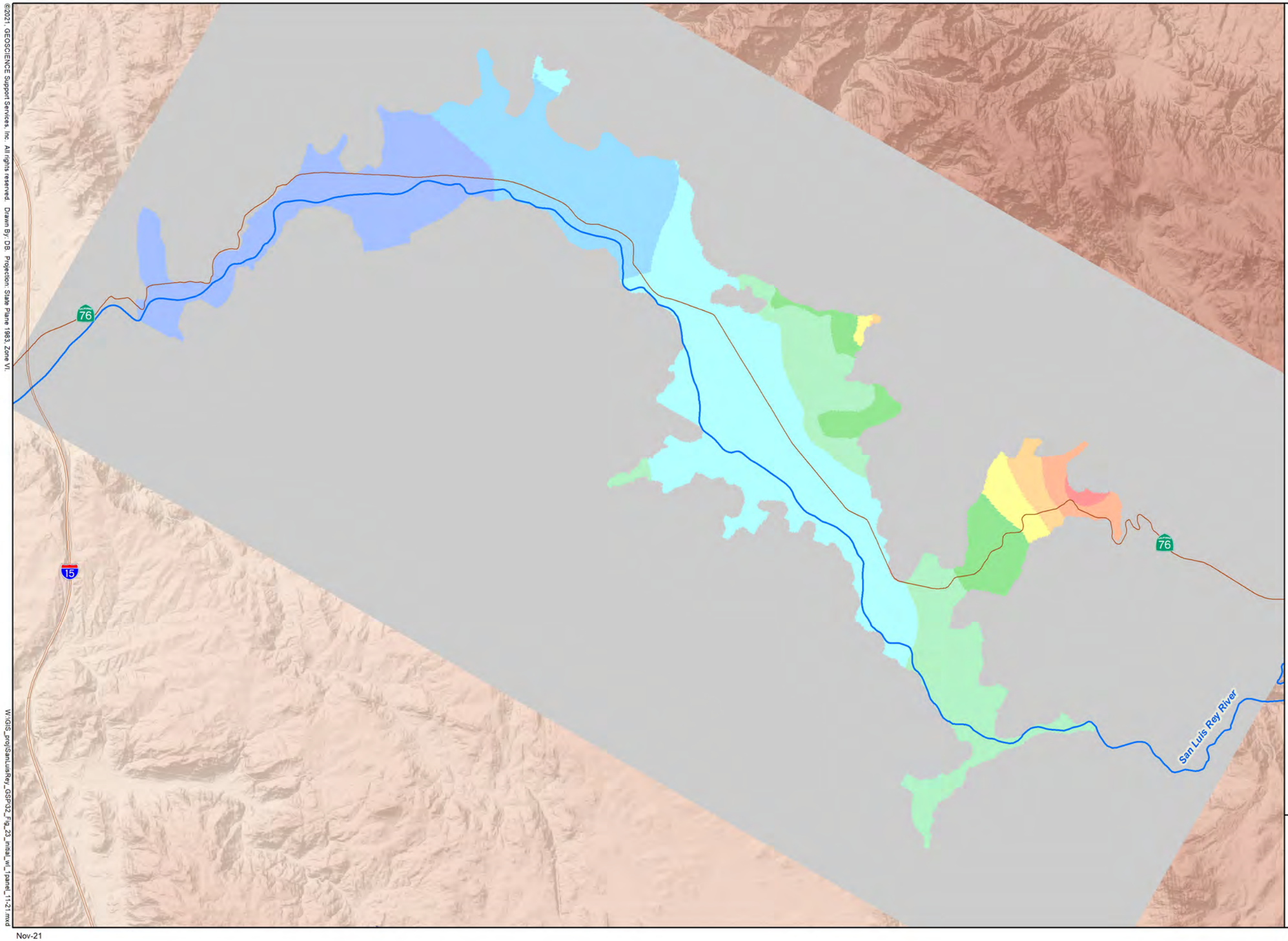


Figure 22



EXPLANATION

Initial Groundwater Elevation (ft amsl)

- 0 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000
- 1000 - 1200
- 1200 - 1400
- 1400 - 1600
- 1600 - 1800
- 1800 - 2000

Upper San Luis Rey Groundwater Model Boundary

Inactive Model Area

San Luis Rey River

N

0 1.25 2.5

Miles

INITIAL WATER LEVELS

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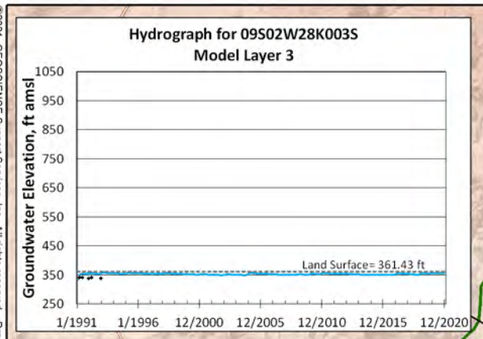
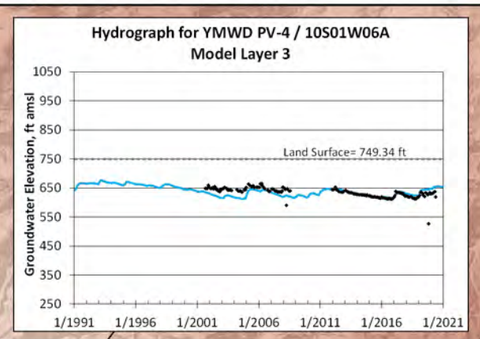
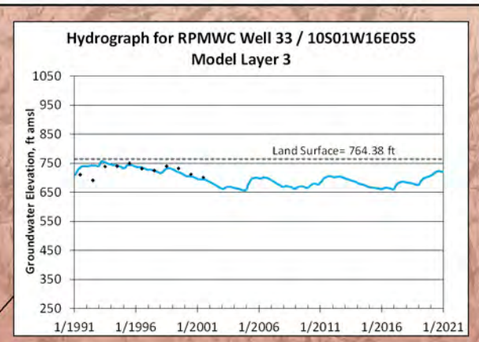
FIGURE 23

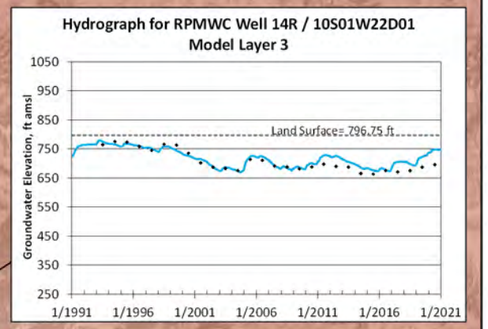
DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

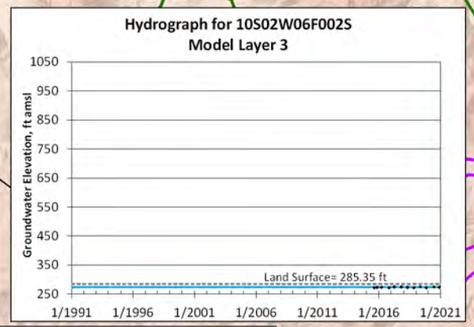
GEOSCIENCE

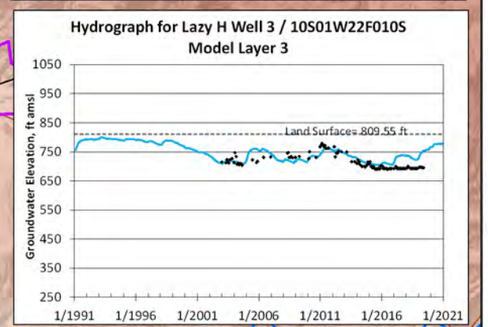


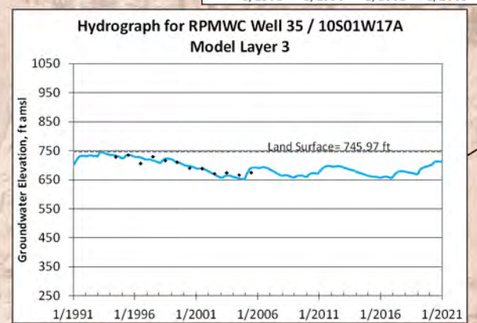


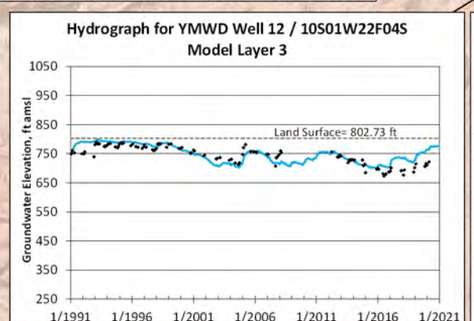


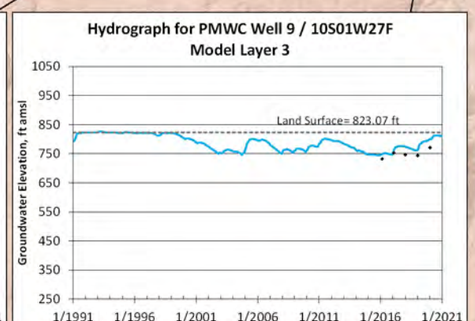


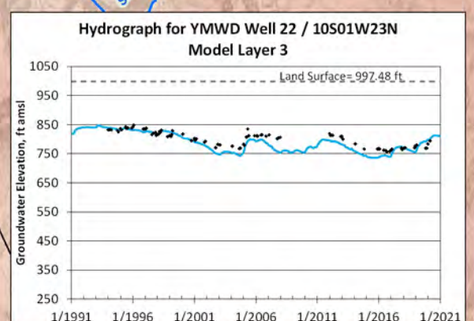












EXPLANATION

- Pala Subbasin Boundary (SWRCB D1649, 2002; DWR Bulletin 118, 2020; and AB1944, 2018)
- Pauma Subbasin Boundary (SWRCB D1649, 2002; and DWR Bulletin 118, 2020)
- Well with Hydrograph
- Measured Water Level
- Model-Simulated Water Level
- Land Surface

N

0 1.5 3

Miles

SELECTED HYROGRAPHS

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FIGURE 24

DEVELOPMENT AND CALIBRATION OF UPPER SAN LUIS REY SURFACE WATER AND GROUNDWATER MODEL

GEOSCIENCE

Measured vs. Updated Model-Calculated Water Levels – All Layers (1991 to 2020)

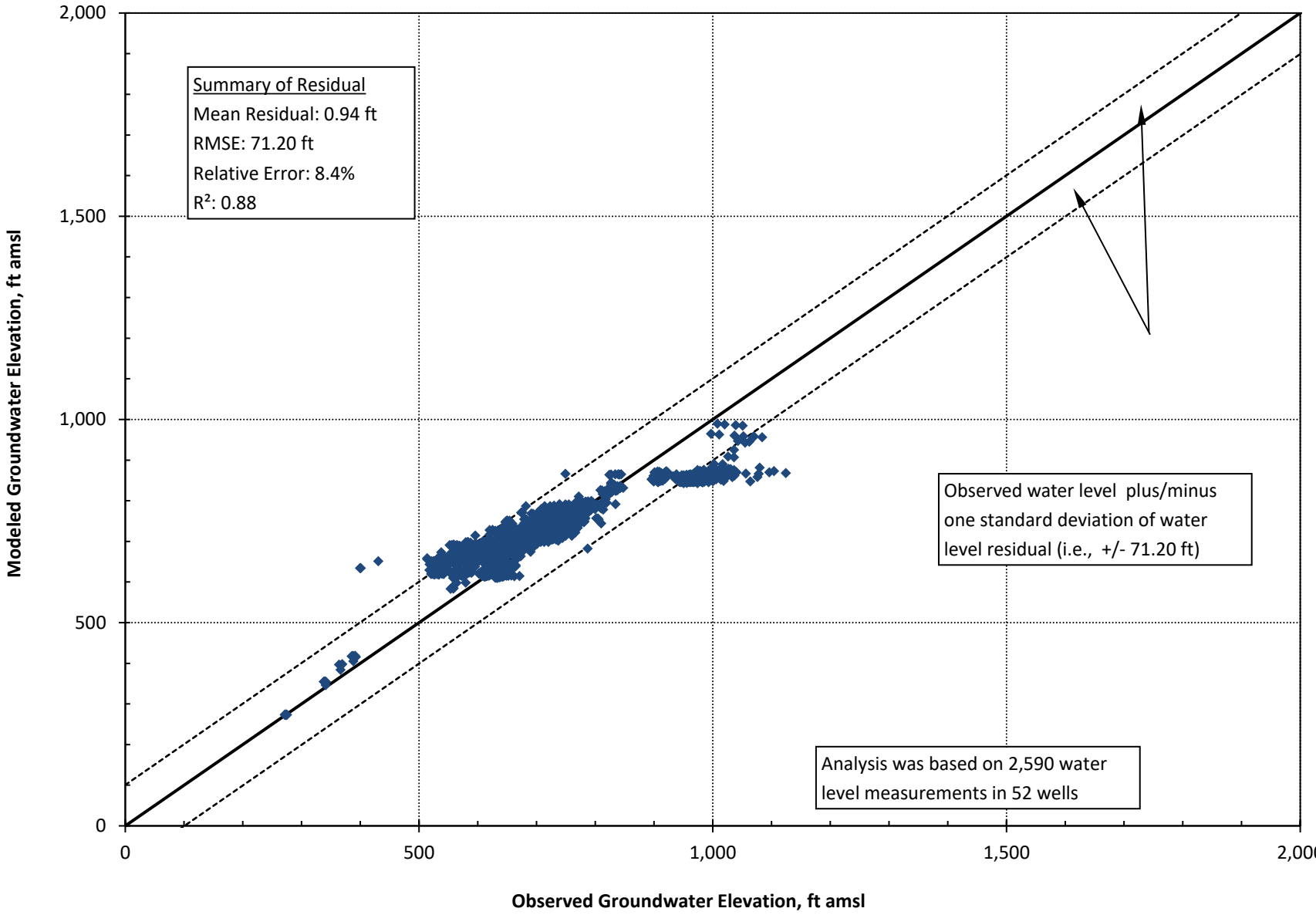
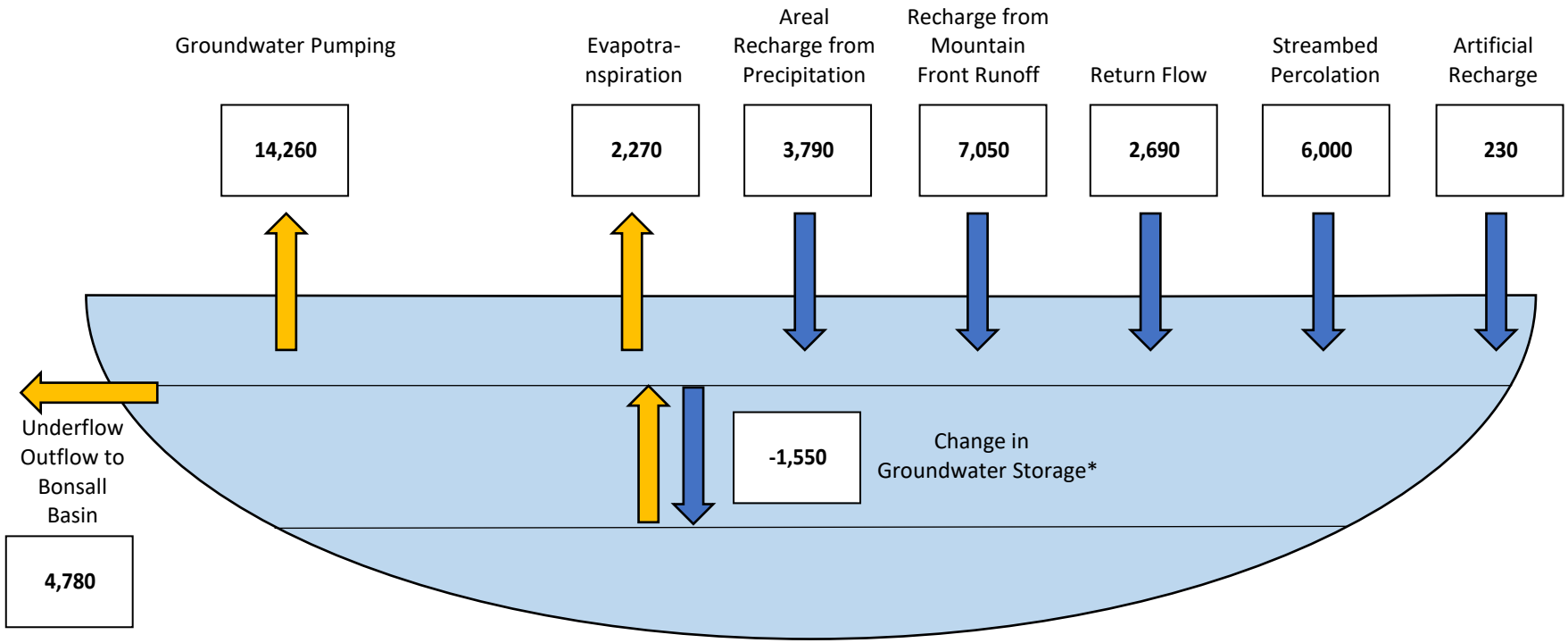


Figure 25

Upper San Luis Rey Valley Groundwater Subbasin
Average Annual Water Budget



All values in acre-ft/yr

*A positive sign indicates an increase in groundwater storage; a negative sign represents a decline in groundwater storage.

Figure 26

TABLES

GEOSCIENCE

Upper San Luis Rey Valley Groundwater Subbasin
Annual Water Balance from 1991 through 2020

Calender Year	Areal Recharge from Precipitation	Recharge from Mountain Front Runoff	Anthropogenic Return Flow	Streambed Percolation	Artificial Recharge	Total Inflow	Groundwater Pumping	Evapotranspiration	Underflow Outflow to Bonsall Basin	Total Outflow	Change in Storage	Cumulative Change in Storage
	acre-ft						acre-ft				acre-ft	
1991	3,483	6,525	2,902	10,300	149	23,359	17,609	2,886	3,533	24,028	-669	-669
1992	2,452	4,787	2,929	2,401	155	12,724	16,497	3,278	4,697	24,471	-11,747	-12,416
1993	9,937	18,129	2,919	-5,376	160	25,769	16,556	4,048	5,437	26,041	-271	-12,688
1994	2,131	4,303	2,936	579	166	10,116	15,971	3,271	4,682	23,925	-13,809	-26,496
1995	6,766	12,440	2,925	3,596	171	25,898	15,913	3,663	5,042	24,618	1,280	-25,217
1996	2,174	4,347	2,942	3,788	177	13,428	15,434	2,928	4,640	23,002	-9,574	-34,791
1997	1,897	4,034	2,979	3,708	182	12,799	15,314	2,412	4,642	22,369	-9,570	-44,360
1998	6,541	12,027	2,951	10,200	187	31,907	15,460	3,151	4,933	23,544	8,363	-35,998
1999	970	2,746	2,955	-381	193	6,483	15,063	2,252	4,598	21,914	-15,431	-51,429
2000	1,697	3,296	3,033	4,438	198	12,662	15,388	1,899	4,568	21,855	-9,193	-60,622
2001	2,366	4,055	2,727	3,122	204	12,474	14,005	1,811	4,694	20,510	-8,036	-68,658
2002	1,133	1,980	2,790	-600	209	5,511	14,023	1,519	4,584	20,127	-14,615	-83,273
2003	3,566	5,909	2,733	10,119	214	22,541	13,476	1,697	4,691	19,864	2,677	-80,596
2004	3,075	4,981	2,695	6,486	220	17,457	13,093	1,481	4,624	19,198	-1,742	-82,338
2005	10,730	19,281	2,636	15,383	225	48,256	13,976	2,514	5,272	21,763	26,493	-55,844
2006	2,571	4,897	2,729	3,661	230	14,089	14,234	2,062	4,715	21,011	-6,922	-62,767
2007	858	1,571	2,787	-2,444	236	3,008	14,240	1,635	4,621	20,496	-17,487	-80,254
2008	2,933	6,195	2,760	7,503	241	19,632	13,772	1,558	4,684	20,014	-383	-80,637
2009	3,282	5,335	2,860	8,862	247	20,586	14,462	1,679	4,658	20,798	-212	-80,849
2010	5,354	11,055	2,442	14,709	252	33,812	13,664	1,929	4,805	20,398	13,415	-67,434
2011	6,472	12,918	2,517	12,842	257	35,008	14,458	2,555	5,167	22,180	12,828	-54,606
2012	2,739	4,920	2,539	4,867	263	15,328	14,456	2,187	4,846	21,489	-6,161	-60,767
2013	1,929	3,170	2,556	1,776	268	9,700	14,265	1,863	4,765	20,893	-11,193	-71,960
2014	1,756	2,821	2,475	2,330	273	9,655	13,319	1,632	4,723	19,673	-10,018	-81,977
2015	2,171	3,501	2,362	5,028	279	13,341	12,072	1,532	4,745	18,350	-5,009	-86,986
2016	2,913	4,924	2,327	8,607	284	19,055	11,868	1,542	4,791	18,201	854	-86,132
2017	6,004	11,770	2,323	15,808	290	36,195	12,262	2,178	5,113	19,553	16,641	-69,491
2018	1,984	3,150	2,319	2,718	295	10,465	12,020	1,715	4,755	18,490	-8,026	-77,517
2019	8,167	15,857	2,262	17,018	300	43,604	11,912	2,449	5,256	19,617	23,987	-53,530
2020	5,645	10,607	2,367	9,162	306	28,087	13,114	2,747	5,124	20,986	7,101	-46,429
Average 1991 to 2020	**3,790**	**7,051**	**2,689**	**6,007**	**228**	**19,765**	**14,263**	**2,269**	**4,780**	**21,313**	**-1,548**	

APPENDIX 5A

Water Level Measurement Field Form

GEOSCIENCE
GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

USLR GSP
Water Level Monitoring

Name _____ **Firm** _____

Date / Day _____ **Weather** _____

Well	RP	Time	Depth to Water (ft brp)		Totalizer Reading	Nearby Pumping Wells		Notes:
MW-1								
MW-2								
MW-3								
MW-4								
MW-5								
MW-6								
MW-7								
MW-8								
MW-9								
MW-10								
MW-11								
MW-12								
MW-13								
MW-14								
MW-15								
MW-16								
MW-17								
MW-18								
MW-20								
MW-21								
MW-22								
MW-23								
MW-24								
MW-25								
MW-26								
MW-27								
MW-28								
MW-29								
MW-30								

APPENDIX 5B

Water Quality Sampling Field Form

GEOSCIENCE

GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

WATER QUALITY SAMPLING DATA SHEET

Client: _____ Sampled By: _____

Well Name/Number: _____ Test Date: _____

Well Dia: _____in Well Depth: _____ft bgs Screened Interval: _____ft bgs

Static WL: _____ ft brp Reference Point Elevation: _____ ft amsl

RP: _____ Pump Depth: _____ ft bgs

Totalizer Reading:

Time	Water Level (ft brp)	Temp (°C)	Cond (µS/cm)	TDS (mg/L)	SDI	DO (mg/L)	pH	ORP (mV)	Turbitity (NTU)

Sampling Method:

Casing Volume:

Tubing Volume:

Volume Pumped Before Sampling:

Flow Rate:

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit Turb: +/- 10%

Cond: +/- 3% DO: +/- 10%

ORP: +/- 10 mV Desired Flow Rate: 100 to 500 mL/min

APPENDIX 6A

Ordinance No. 100-08: An Ordinance of the Yuima Municipal Water District Adopting a Drought Response Conservation Program

ORDINANCE NO. 100 - 08

AN ORDINANCE OF THE YUIMA MUNICIPAL WATER DISTRICT ADOPTING A DROUGHT RESPONSE CONSERVATION PROGRAM

WHEREAS, article 10, section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable methods of use of water be prevented, and that water be conserved for the public welfare; and

WHEREAS, conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety and welfare; and

WHEREAS, regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water; and

WHEREAS, California Water Code sections 375 et seq. authorize water suppliers to adopt and enforce a comprehensive water conservation program; and

WHEREAS, adoption and enforcement of a comprehensive water conservation program will allow the Yuima Municipal Water District (hereinafter the "District") to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.; and

WHEREAS, San Diego County is a semi-arid region and local water resources are scarce. The region is dependent upon imported water supplies provided by the San Diego County Water Authority, which obtains a substantial portion of its supplies from the Metropolitan Water District of Southern California. Because the region is dependent upon imported water supplies, weather and other conditions in other portions of this State and of the Southwestern United States affect the availability of water for use in San Diego County; and

WHEREAS, the San Diego County Water Authority has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of the Water Authority's programs to provide a reliable supply of water to meet the needs of the Water Authority's 24 member public agencies, including the District. The Water Authority's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Water Authority's Urban Water Management Plan; and

WHEREAS, as anticipated by its Urban Water Management Plan, the San Diego County Water Authority, in cooperation and consultation with its member public agencies, has

adopted a Drought Management Plan, which establishes a progressive program for responding to water supply limitations resulting from drought conditions. This ordinance is intended to be consistent with and to implement the Water Authority's Drought Management Plan; and

WHEREAS, the Water Authority's Drought Management Plan contains three stages containing regional actions to be taken to lessen or avoid supply shortages. This ordinance contains drought response levels that correspond with the Drought Management Plan stages; and

WHEREAS, the District, due to the geographic and climatic conditions within its territory and its partial dependence upon water imported and provided by the San Diego County Water Authority, may experience shortages due to drought conditions, regulatory restrictions enacted upon imported supplies and other factors. The District has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The District's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Urban Water Management Plan adopted by the District; and

WHEREAS the water conservation measures and progressive restrictions on water use and method of use identified by this ordinance provide certainty to water users and enable District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public.

NOW, THEREFORE, the Board of Directors of the Yuima Municipal Water District does ordain as follows:

SECTION 1.0 DECLARATION OF NECESSITY AND INTENT

(a) This ordinance establishes water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable method of use of water within the District in order to assure adequate supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

(b) This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

(c) Level 1 condition drought response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by District. During drought response condition Levels 2 through 4, all conservation measures and water-use restrictions are mandatory and become increasingly

restrictive in order to attain escalating conservation goals.

(d) During a Drought Response Level 2 condition or higher, the water conservation measures and water use restrictions established by this ordinance are mandatory and violations are subject to criminal, civil, and administrative penalties and remedies specified in this ordinance and as provided in the District's Rules and Regulations governing water service.

SECTION 2.0 DEFINITIONS

(a) The following words and phrases whenever used in this chapter shall have the meaning defined in this section:

1. "Grower" refers to those engaged in the growing or raising, in conformity with recognized practices of husbandry, for the purpose of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural or floricultural products, and produced: (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market. "Grower" does not refer to customers who purchase water subject to the Metropolitan Interim Agricultural Water Program or the Water Authority Special Agricultural Rate programs.

2. "Water Authority" means the San Diego County Water Authority.

3. "DMP" means the Water Authority's Drought Management Plan in existence on the effective date of this ordinance and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

4. "Metropolitan" means the Metropolitan Water District of Southern California.

5. "Person" means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by the District.

SECTION 3.0 APPLICATION

(a) The provisions of this ordinance apply to any person in the use of any water provided by the District.

(b) This ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater ordinances and stormwater management plans.

(c) Nothing in this ordinance is intended to affect or limit the ability of the District to declare and respond to an emergency, including an emergency that affects the ability of the District to supply water.

(d) The provisions of this ordinance do not apply to use of water from private wells, water produced under Well Agreements between the District and private parties, or to recycled water.

(e) Nothing in this ordinance shall apply to use of water that is subject to a special supply program, such as the Metropolitan Interim Agricultural Water Program or the Water Authority Special Agricultural Rate programs. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program. A person using water subject to a special supply program and other water provided by the District is subject to this ordinance in the use of the other water.

SECTION 4.0 DROUGHT RESPONSE LEVEL 1 - DROUGHT WATCH CONDITION

(a) A Drought Response Level 1 condition is also referred to as a "Drought Watch" condition. A Level 1 condition applies when the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction of up to 10 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. The General Manager shall declare the existence of a Drought Response Level 1 and take action to implement the Level 1 conservation practices identified in this ordinance.

(b) During a Level 1 Drought Watch condition, District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices. [The same water conservation practices become mandatory if District declares a Level 2 Drought Alert condition]:

1. Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.

2. Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

3. Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only.

4. Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.

5. Irrigate nursery and commercial grower's products in conformance with such irrigation schedules as the District's General Manager shall establish. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, or when a bucket is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.

6. Use re-circulated water to operate ornamental fountains.

7. Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

8. Serve and refill water in restaurants and other food service establishments only upon request.

9. Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.

10. Repair all water leaks within five (5) days of notification by the District unless other arrangements are made with the General Manager.

11. Use recycled or non-potable water for construction purposes when available.

(c) During a Drought Response Level 2 condition or higher, all persons shall be required to implement the conservation practices established in a Drought Response Level 1 condition.

SECTION 5.0 DROUGHT RESPONSE LEVEL 2 - DROUGHT ALERT CONDITION

(a) A Drought Response Level 2 condition is also referred to as a "Drought Alert" condition. A Level 2 condition applies when the Water Authority notifies its member agencies that due to cutbacks caused by drought or other reduction in supplies, a consumer demand reduction of up to 20 percent is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors shall declare the existence of a Drought Response Level 2 condition and implement the mandatory Level 2 conservation measures identified in this ordinance.

(b) All persons using District water shall comply with Level 1 Drought Watch water conservation practices during a Level 2 Drought Alert, and shall also comply with the following additional conservation measures:

1. Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager and posted by the District. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the District. This section shall not apply to commercial growers or nurseries.

2. Limit lawn watering and landscape irrigation using sprinklers to no more than ten (10) minutes per watering station per assigned day. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotor sprinklers.

3. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 5 (b) (1), on the same schedule set forth in section 5 (b) (1) by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

4. Repair all leaks within seventy-two (72) hours of notification by the District unless other arrangements are made with the General Manager.

5. Stop operating ornamental fountains or similar decorative water features unless recycled water is used.

SECTION 6.0 DROUGHT RESPONSE LEVEL 3 - DROUGHT CRITICAL CONDITION

(a) A Drought Response Level 3 condition is also referred to as a "Drought Critical" condition. A Level 3 condition applies when the Water Authority notifies its member agencies

that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to 40 percent is required in order to have sufficient supplies available to meet anticipated demands. The District Board of

Directors shall declare the existence of a Drought Response Level 3 condition and implement the Level 3 conservation measures identified in this ordinance.

(b) All persons using District water shall comply with Level 1 Drought Watch and Level 2 Drought Alert water conservation practices during a Level 3 Drought Critical condition and shall also comply with the following additional mandatory conservation measures:

1. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the District. This section shall not apply to commercial growers or nurseries.

2. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 6 (b) (1), on the same schedule set forth in section 6 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

3. Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a drought response level under this ordinance.

4. Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

5. Repair all leaks within forty-eight (48) hours of notification by the District unless other arrangements are made with the General Manager.

(c) Upon the declaration of a Drought Response Level 3 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, and no statements of immediate ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability) shall be issued, except under the following circumstances:

1. A valid, unexpired building permit has been issued for the project; or

2. The project is necessary to protect the public's health, safety, and welfare; or

3. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of District.

This provision shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.

(d) Upon the declaration of a Drought Response Level 3 condition, District will suspend consideration of annexations to its service area.

(e) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If the District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses water in excess of the allocation shall be subject to a penalty in such amount as shall be established from time to time in the District's Rules and Regulations Governing Water Service for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 7.0 DROUGHT RESPONSE LEVEL 4 - DROUGHT EMERGENCY CONDITION

(a) A Drought Response Level 4 condition is also referred to as a "Drought Emergency" condition. A Level 4 condition applies when the Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code section 350 and notifies its member agencies that Level 4 requires a demand reduction of more than 40 percent in order for the District to have maximum supplies available to meet anticipated demands. The District's Board of Directors shall declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350.

(b) All persons using District water shall comply with conservation measures required during Level 1 Drought Watch, Level 2 Drought Alert, and Level 3 Drought Critical conditions and shall also comply with the following additional mandatory conservation measures:

1. Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless the District has determined that recycled water is available and may be lawfully applied to the use.

A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 6 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

B. Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

C. Maintenance of existing landscaping for erosion control;

D. Maintenance of plant materials identified to be rare or essential to the well being of rare animals;

E. Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 6 (b) (1);

F. Watering of livestock; and

G. Public works projects and actively irrigated environmental mitigation projects.

2. Repair all water leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager.

(c) The District may establish a water allocation for property served by the District. If the District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses water in excess of the allocation shall be subject to a penalty in such amount as shall from time to time be established by the Board of Directors in the Rules and Regulations of the District Governing Water Service for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 8.0 CORRELATION BETWEEN DROUGHT MANAGEMENT PLAN AND DROUGHT RESPONSE LEVELS

(a) The correlation between the Water Authority's DMP stages and the District's drought response levels identified in this ordinance is described herein. Under DMP Stage 1, the District may implement Drought Response Level 1 actions. Under DMP Stage 2, the District may implement Drought Response Level 1 or Level 2 actions. Under

DMP Stage 3, the District may implement Drought Response Level 2, Level 3, or Level 4 actions.

Drought Response Levels	Use Restrictions	Conservation Target	DMP Stage
1 - Drought Watch	Voluntary	Up to 10%	Stage 1 or 2
2 - Drought Alert	Mandatory	Up to 20%	Stage 2 or 3
3 - Drought Critical	Mandatory	Up to 40%	Stage 3
4 - Drought Emergency	Mandatory	Above 40%	Stage 3

(b) The drought response levels identified in this ordinance correspond with the Water Authority DMP as identified in the following table:

The foregoing and any subsequent provisions notwithstanding, the Board of Directors reserves the right, in its sole discretion, to establish a particular Drought Response Level independently of Water Authority actions, if in the Board's sole judgment such action is necessary to take appropriate account of particular local circumstances that may ameliorate or exacerbate conditions at the local level.

SECTION 9.0 PROCEDURES FOR DETERMINATION AND NOTIFICATION OF DROUGHT RESPONSE LEVEL

(a) The existence of a Drought Response Level 1 condition may be declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be submitted to the District Board of Directors. The General Manager may publish a notice of the determination of existence of Drought Response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on its website.

(b) The existence of Drought Response Level 2 or Level 3 conditions may be declared by resolution of the District Board of Directors adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation measures applicable to Drought Response Level 2 or Level 3 conditions shall take effect on the tenth (10th) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices.

(c) The existence of a Drought Response Level 4 condition may be declared in accordance with the procedures specified in California Water Code sections 351 and 352. The mandatory conservation measures applicable to Drought Response Level 4 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices. If the District establishes a water allocation, it shall provide notice of the

allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Water allocation shall be effective on the fifth (5) day following the date of mailing or at such later date as specified in the notice.

(d) The District Board of Directors may declare an end to a Drought Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

SECTION 10.0 HARDSHIP VARIANCE

(a) If, due to unique circumstances, a specific requirement of this ordinance would result in undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to District water users generally or to similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this section.

(b) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon with agency water is used, that is disproportionate to the impacts to District water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a variance shall be a form prescribed by District and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the District Board of Directors.

2. Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

3. Required Findings for Variance. An application for a variance shall be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the District, all of the following:

A. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other District customers.

B. That because of special circumstances applicable to the property or its use, the strict application of this ordinance would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

C. That the authorizing of such variance will not be of

substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this chapter and will not be detrimental to the public interest.

D. That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.

4. Approval Authority. The General Manager shall exercise approval authority and act upon any completed application no later than 10 days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory drought response.

5. Appeals to District Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the District Board of Directors within 10 days of the decision upon written request for a hearing. The request shall state the grounds for the appeal. At a public meeting, the District Board of Directors shall act as the approval authority and review the appeal de novo by following the regular variance procedure. The decision of the District Board of Directors is final.

SECTION 11.0 VIOLATIONS AND PENALTIES

(a) Any person, who uses, causes to be used, or permits the use of water in violation of this ordinance is guilty of an offense punishable as provided herein.

(b) Each day that a violation of this ordinance occurs is a separate offense.

(c) Administrative fines may be levied for each violation of a provision of this ordinance as follows:

1. One hundred dollars for a first violation.
2. Two hundred dollars for a second violation of any provision of this ordinance within one year.
3. Five hundred dollars for each additional violation of this ordinance within one year.

(d) Violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter.

(e) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding $1,000, or by both as provided in Water Code section 377.

(f) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 7.0 and applicable during a Level 4 Drought

Emergency condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.

(g) All remedies provided for herein shall be cumulative and not exclusive.

SECTION 12.0 EFFECTIVE DATE

This ordinance is effective immediately upon adoption or as otherwise established by State law for District.

PASSED, APPROVED AND ADOPTED this 28th day of July, 2008 by the following vote:

AYES: Knutson, Anderson, Fitzsimmons, Lyttle, Stockton
NOES: none
ABSTAIN: none
ABSENT: none

W. D. Knutson,
President of the Board of Directors

ATTEST:
George Stockton, Secretary

APPROVED AS TO FORM:
Jeffrey Scott, General Counsel