IN THE SUPREME COURT OF THE STATE OF NEVADA

Case No. 81224

DIAMOND NATURAL RESOURCES PROTECTION & CONSERVATION ASSOCIATION; J&T FARMS, LLC; GALLAGHER FARMS LLC; JEFF LOMMORI; M&C HAY; CONLEY LAND & LIVESTOCK, LLC; JAMES ETCHEVERRY; NICK ETCHEVERRY; TIM HALPIN; SANDI HALPIN; DIAMOND VALLEY HAY COMPANY, INC.; MARK MOYLE FARMS LLC; D.F. & E.M. PALMORE FAMILY TRUST; WILLIAM H. NORTON; PATRICIA NORTON; SESTANOVICH HAY & CATTLE, LLC; JERRY ANDERSON; BILL BAUMAN; DARLA BAUMAN; TIM WILSON, P.E., NEVADA STATE ENGINEER, DIVISION OF WATER RESOURCES, DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES; AND EUREKA COUNTY;

Appellants,

v.

DIAMOND VALLEY RANCH, LLC; AMERICAN FIRST FEDERAL, INC.; BERG PROPERTIES CALIFORNIA, LLC; BLANCO RANCH, LLC; BETH MILLS, TRUSTEE MARSHALL FAMILY TRUST; TIMOTHY LEE BAILEY; CONSTANCE MARIE BAILEY; FRED BAILEY; CAROLYN BAILEY; SADLER RANCH, LLC; IRA R. RENNER; AND MONTIRA RENNER,

Respondents.

Appeal From Order Granting Petitions for Judicial Review
Seventh Judicial District Court of Nevada Case No. CV-1902-348

JOINT APPENDIX
VOLUME IV

LEONARD LAW, PC
Debbie Leonard (#8260)
955 S. Virginia St., Suite 220, Reno, NV 89502
775-964-4656
debbie@leonardlawpc.com

CHRONOLOGICAL INDEX TO JOINT APPENDIX

DATE	DOCUMENT	VOLUME	PAGE RANGE
02/11/2019	Sadler Ranch, LLC and Daniel S. Venturacci's Petition for Judicial Review (filed in Case No. CV-1902-349, later consolidated with CV-1902-348)	I	JA0001-0089
02/11/2019	Bailey Petitioners' Notice of Appeal and Petition for Review of Nevada State Engineer Order No. 1302 (filed in Case No. CV-1902-350, later consolidated with CV-1902-348	I	JA0090-0115
02/11/2019	Ira R. and Montira Renner Petition for Judicial Review	I	JA0116-0144
04/03/2019	Eureka County's Motion to Intervene	I	JA0145-0161
04/05/2019	Notice of Entry of Stipulation and Order to Consolidate Cases	I	JA0162-0182
04/25/2019	Order Following Telephone Status Hearing Held April 9, 2019	I	JA0183-0186
04/26/2019	Letter to Chambers re Stipulated Extension for Record on Appeal	I	JA0187-0188
05/10/2019	Order Granting Eureka County's Motion to Intervene	I	JA0189-0190
05/13/2019	DNRPCA Intervenors' Motion to Intervene	I	JA0191-0224

DATE	DOCUMENT	VOLUME	PAGE RANGE
05/28/2019	Unopposed Motion to Extend Time to File the State Engineer's Record on Appeal	I	JA0225-0232
06/07/2019	Order Granting DNRPCA Intervenors' Motion to Intervene	I	JA0233-0234
06/07/2019	Order Granting Motion to Extend Time to File The State Engineer's Record on Appeal	I	JA0235
06/11/2019	State Engineer Motion in Limine	II	JA0236-0307
06/11/2019	Summary of Record on Appeal and Record on Appeal bates-numbered SE ROA 1-952	II (JA0308-0479) III (JA0480-0730) IV (JA0731-0965) V (JA0966-1196) VI (JA1197-1265)	JA0308-1265
06/11/2019	Order Following Telephone Status Conference Held June 4, 2019	VI	JA1266-1268
06/14/2019	Notice of Withdrawal of Petitioner Daniel S. Venturacci	VI	JA1269-1271
06/20/2019	Eureka County's Joinder to State Engineer's Motion in Limine	VI	JA1272-1275
06/24/2019	Opposition of Baileys to Motion in Limine	VI	JA1276-1285
06/24/2019	Sadler Ranch, LLC and Ira R. and Montira Renner Opposition to Motion in Limine	VI	JA1286-1314
06/24/2019	DNRPCA Intervenor's Joinder to State Engineer's Motion in Limine and Eureka County's Joinder Thereto	VI	JA1315-1317

DATE	DOCUMENT	VOLUME	PAGE RANGE
07/01/2019	Notice of Mailing of Notice of Legal Proceedings	VI	JA1318-1330
07/01/2019	DNRPCA Intervenor's Reply in Support of Joinder to State Engineer's Motion in Limine and Eureka County's Joinder Thereto	VI	JA1331-1336
07/01/2019	Eureka County's Joinder to State Engineer's and DNRPCA's Replies in Support of Motion in Limine	VI	JA1337-1341
07/02/2019	State Engineer's Reply in Support of Motion in Limine	VI	JA1342-1353
07/31/2019	Motion to Intervene by Beth Mills, Trustee of the Marshall Family Trust	VI	JA1354-1358
08/01/2019	Motion to Intervene field by Diamond Valley Ranch, LLC, American First Federal, Inc., Berg Properties California, LLC and Blanco Ranch, LLC	VI	JA1359-1368
09/04/2019	Order Granting Motion in Limine	VI	JA1369-1378
09/06/2019	Order Granting Motion to Intervene for Diamond Valley Ranch, LLC, American First Federal, Inc., Berg Properties California, LLC and Blanco Ranch, LLC	VI	JA1379-1382
09/16/2019	Opening Brief of Petitioners Sadler Ranch, LLC and Ira R. and Montira Renner	VII	JA1383-1450
09/16/2019	Opening Brief of Bailey Petitioners	VII	JA1451-1490

DATE	DOCUMENT	VOLUME	PAGE RANGE
10/23/2019	DNRPCA Intervenors' Answering Brief	VII	JA1491-1522
10/23/2019	DNRPCA Intervenors' Addendum to Answering Brief	VII	JA1523-1626
10/23/2019	State Engineer's Answering Brief	VIII	JA1627-1674
10/23/2019	Answering Brief of Eureka County	VIII	JA1675-1785
11/26/2019	Reply Brief of Petitioners Sadler Ranch, LLC and Ira R. and Montira Renner	IX	JA1786-1818
11/26/2019	Sadler Ranch, LLC and Ira R. & Montira Renner's Addendum to Reply Brief	IX	JA1819-1855
11/26/2019	Reply Brief of Bailey Petitioners and Addendum to Bailey Reply Brief	IX	JA1856-1945
12/10/2019	Transcript of Proceedings, Oral Argument Volume I	X	JA1946-2154
12/10/2019	Opening Argument of Bailey Petitioners Presentation	X	JA2155-2184
12/10/2019	Sadler Ranch & Ira & Montira Renner Opening Argument Presentation	XI	JA2185-2278
12/10/2019	Eureka County's Presentation	XI	JA2279-2289
12/11/2019	Transcript of Proceedings, Oral Argument Volume II	XI	JA2290-2365
12/11/2019	DNRPCA Intervenors' Presentation	XI	JA2366-2380

DATE	DOCUMENT	VOLUME	PAGE RANGE
04/27/2020	Findings of Fact, Conclusions of Law, Order Granting Petitions for Judicial Review	XI	JA2381-2420
04/30/2020	Notice of Entry of Order filed by Sadler Ranch, LLC and Ira R. and Montira Renner	XII	JA2421-2464
04/30/2020	Notice of Entry of Findings of Fact, Conclusion of Law, Order Granting Petitions for Judicial Review filed by Bailey Petitioners	XII	JA2465-2507
05/14/2020	DNRPCA Intervenors' Notice of Appeal	XII	JA2508-2554
05/14/2020	DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIII	JA2555-2703
05/15/2020	State Engineer Notice of Appeal	XIII	JA2704-2797
05/19/2020	State Engineer Joinder to DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIII	JA2798-2802
05/19/2020	Order Denying DNRPCA Intervenors' Ex Parte Motion for Order Shortening Time; Order Granting DNRPCA Intervenors' Motion for Temporary Stay Pending Decision on Intervenors' Motion for Stay Pending Appeal	XIV	JA2803-2807
05/21/2020	Eureka County's Notice of Appeal	XIV	JA2808-2811

DATE	DOCUMENT	VOLUME	PAGE RANGE
05/21/2020	Eureka County Joinder to DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2812-2815
05/27/2020	Opposition of Bailey Petitioners to DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2816-2831
05/27/2020	Sadler Ranch and Ira R. and Montira Renner's Opposition to Motion for Stay Pending Appeal	XIV	JA2832-2864
06/01/2020	DNRPCA Intervenors' Reply in Support of Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2865-2929
06/01/2020	State Engineer's Reply in Support of DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2930-2941
06/01/2020	Eureka County's Reply in Support of Motion for Stay Pending Appeal	XIV	JA2942-3008
6/30/2020	Order Denying DNRPCA Intervenors' Motion for Stay Pending Appeal	XIV	JA3009-3013

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05/14/2020	DNRPCA Intervenors' Notice of Appeal	XII	JA2508-2554

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12/11/2019	DNRPCA Intervenors' Presentation	XI	JA2366-2380
06/01/2020	DNRPCA Intervenors' Reply in Support of Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2865-2929
05/21/2020	Eureka County Joinder to DNRPCA Intervenors' Motion for Stay Pending Appeal of Order Granting Petitions for Judicial Review of State Engineer Order 1302	XIV	JA2812-2815
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12/11/2019	Transcript of Proceedings, Oral Argument Volume II	XI	JA2290-2365
05/28/2019	Unopposed Motion to Extend Time to File the State Engineer's Record on Appeal	I	JA0225-0232

AFFIRMATION

The undersigned does hereby affirm that the preceding document does not contain the social security number of any person.

Date: September 23, 2020

/s/ Debbie Leonard

Debbie Leonard (Nevada Bar No. 8260)
LEONARD LAW, PC
955 S. Virginia Street, Suite 220
Reno, NV 89502
(775) 964-4656
debbie@leonardlawpc.com

Attorney for DNRPCA Appellants

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I am an employee of Leonard Law, PC, and that on September 23, 2020, the foregoing document was electronically filed with the Clerk of the Court for the Nevada Supreme Court by using the Nevada Supreme Court's E-Filing system (E-Flex). Participants in the case who are registered with E-Flex as users will be served by the EFlex system. All others will be served by first-class mail.

/s/ Tricia Trevino
An employee of Leonard Law, PC

Jake Tibbitts

From: Jake Tibbitts
Sent: Thursday, November 17, 2016 2:43 PM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; 'JJ Goicoechea'; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'basqboy@gmail.com'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; JJ. Goicoechea; 'Steve Lewis'; 'Kelvin Hickenbottom'; 'Jackie Berg'; Jessica Santoyo; 'mccuing@unce.unr.edu'; 'jeffbulkley@gmail.com'; 'corbinknowles@cableone.net'
Subject: Draft GMP submitted to State Engineer
Attachments: Nov 2016 DRAFT Diamond Valley GMP for SE review.docx

All:

I sent the Draft GMP to all of you some time ago. This was sent to the State Engineer. However, the County email system was down for about a week and I have heard from many that they never received it. The County system is back up and running so I am again sending this on to you all.

Keep in mind that this is a draft GMP submitted to the State Engineer for feedback. The draft GMP is consistent with the outline, working model, assumptions, notes, etc. that have been developed by the GMP attendees (all of you) over the past several months (over a year). This document will be the main item of discussion at the next GMP meeting scheduled for December 7. Please come to that meeting prepared to discuss and consider any additions or changes that may be desired by all of you.

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
Eureka, NV 89316

Jake Tibbitts

From: Jake Tibbitts
Sent: Wednesday, October 26, 2016 11:43 AM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; 'JJ Goicoechea'; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'basqboy@gmail.com'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; J.J. Goicoechea; 'Steve Lewis'; 'Kelvin Hickenbottom'; 'Jackie Berg'; Jessica Santoyo; 'mccuing@unce.unr.edu'; 'jeffbulkley@gmail.com'; 'corbinknowles@cableone.net'
Subject: Save the date - Next Groundwater Management Plan (GMP) Workshop - Wednesday, December 7 at 9 am

Please save the date for the next GMP meeting scheduled for December 7 at 9 am.

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
Eureka, NV 89316

Phone: 775-237-6010

Please note my email address has changed - JTibbitts@EurekaCountyNV.gov

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Friday, December 02, 2016 9:11 AM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; Jim Ithurralde; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (JaimeJasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; Jerry & Trina Machachek; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net
Cc:	'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject:	GMP meeting reminder - Wednesday, December 7
Attachments:	Nov 2016 DRAFT Diamond Valley GMP for SE review.docx

All:

This is a reminder of the GMP meeting next week on Wednesday, December 7, at 9 am at the Opera House.

Have a good weekend.

Jake Tibbitts

Dec. 7, 2016 GMP Mtg.

Name	email
Jake Tibbitts	jtibbitts@eurekacountynv.gov
Jim Moyle	
Denise Moyle	denisemoyle@gmail.com
Rick Felling	rfelling@water.nv.gov
Hollon Moll	Dimond Valley
Dale Bugenig	eurekah2o.bugenig@gmail.com
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Jake Tibbitts

From:	Jake Tibbitts
Sent:	Tuesday, December 13, 2016 10:27 AM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; Jim Ithurralde; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; Jerry & Trina Machachek; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net
Cc:	'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject:	Save the Date - Next GMP meeting Thursday, January 12 at 9 am

Please save the date for the next GMP meeting scheduled for Thursday, January 12 at 9:00 am at the Opera House.

Merry Christmas and Happy New Years to you all!

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
Eureka, NV 89316

Phone: 775-237-6010

Jake Tibbitts

From: Jake Tibbitts
Sent: Friday, January 06, 2017 1:40 PM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (JaimeJasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarnranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject: Next GMP meeting Thursday, January 12 at 9 am
Attachments: 1 5 17 DRAFT DV GMP.docx

This is a reminder of the next GMP meeting scheduled for next Thursday, January 12 at 9:00 am at the Opera House.

Attached is the most recent draft of the GMP. It has incorporated some changes from the previous draft based on discussion and agreement by the full group meeting in December. There are new red-line edits that are Advisory Board suggestions for the groups consideration.

See you all next week.

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
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Phone: 775-237-6010

JAN. 12, 2017 GMP Mtg

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Jake Tibbitts

From: Jake Tibbitts
Sent: Thursday, January 26, 2017 12:14 PM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'lmrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject: Save the Date: Next GMP meeting Monday, February 27 at 9 am

Please save the date for the next GMP meeting scheduled for Monday, February 27 9:00 am at the Opera House.

Jake Tibbitts

Jake Tibbitts

From: Jake Tibbitts
Sent: Friday, February 24, 2017 3:55 PM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject: GMP Meeting on Monday the 27th at 9 am
Attachments: Februrary 2017 DRAFT DV GMP.docx

All:

The next GMP meeting is Monday (27th) at 9:00 am at the Opera House. The most recent draft of the GMP is attached that incorporates some suggested changes based on the State Engineer's most recent review and the Advisory Board's recommendations. Have a great weekend and see you all on Monday.

Jake Tibbitts

February 27, 2017 GMP Mtg.

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Jake Tibbitts

From: Jake Tibbitts
Sent: Friday, March 17, 2017 9:23 AM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject: RE: Legislative Information

The other bill related to GMPs, SB 269, was introduced on Wednesday. You can read more about it at https://www.leg.state.nv.us/App/NELIS/REL/79th2017/Bill/5226/Text.

This is the bill that came out of the Subcommittee to Study Water.

Also, please remember the next GMP meeting will be Monday, April 10.

Happy St. Patrick's Day!

Jake Tibbitts

From: Jake Tibbitts
Sent: Monday, February 27, 2017 1:37 PM
To: 'Lynn Conley' <dnrpca@gmail.com>; 'Anthony Miller' <lionsunlimited@gmail.com>; 'Billy Norton' <nortoncritters@yahoo.com>; 'Bob Burnham' <burnhamhayfarm@msn.com>; 'Carrie Dubray' <lazygbaraqhas@gmail.com>; 'Craig Benson' <haystax@icloud.com>; 'D'Mark Mick' <dmarkmick@firstcommercellc.com>; 'Dale Bugenig' <eurekah2o.bugenig@gmail.com>; 'Dave & Leora Betschart'

April 10, 2017 GMP Mtg.

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May 2, 2017 GMP Mtg.

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Jake Tibbitts

From:	Jake Tibbitts
Sent:	Friday, May 05, 2017 3:27 PM
To:	'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (JaimeJasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc:	'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject:	RESCHEDULE - Next GMP Meeting on Tuesday May 16

All:

Due to some conflicts, there will **not** be a GMP meeting next Tuesday the 9th. The next GMP meeting will be **Tuesday, May 16th** at the Opera House.

Please also remember that there will be an evening meeting on **Monday, May 22** at 6 pm at the Opera House.

Finally, early next week you will all receive a copy of the most recent version of the GMP. It will have all of the recent changes made at the full-group meeting and will incorporate edits from the outside editor that has been looking at the document and helping clean it up for better reading.

Let me know if you have any questions. I hope to see you all on May 16.

Best,
Jake Tibbitts

Jake Tibbitts

From: Jake Tibbitts
Sent: Wednesday, May 10, 2017 3:01 PM
To: 'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc: 'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject: Most recent draft GMP and meeting reminder for Tuesday May 16
Attachments: May 2017 Draft DV GMP.docx

Good afternoon. Attached is the most recent draft of the GMP. This draft incorporates all changes agreed to by the full-group attendees over the last few meetings. It also has some readability and grammatical clean-up based on assistance from the outside editor review. There are some red-lines with the most recent draft changes based on the last meeting.

Please also remember the GMP meeting for this coming Tuesday, May 16, at 9:00 am at the Opera House.

Best,

Jake Tibbitts

May 16, 2017 GMP Mtg.

Jake Tibbitts	jtibbitts@eurekacountynv.gov
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Jim Gallagher	
Travis Galagher	
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Dale Bugenig	eurekah2o.bugenig@gmail.co[illegible]

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Thursday, May 18, 2017 1:48 PM
To:	'Lynn Conley'; 'Anthony Miller'; 'Billy Norton'; 'Bob Burnham'; 'Carrie Dubray'; 'Craig Benson'; 'D'Mark Mick'; 'Dale Bugenig'; 'Dave & Leora Betschart'; 'Denise Moyle'; 'Dusty Moyle'; 'Fred Etchegaray'; 'Jayme Halpin'; 'Jeff Lommori'; 'Jerry & Trina Machachek'; 'Jerry Sestanovich'; 'Jim Baumann'; 'Jim Gallagher'; 'Jim Ithurralde'; J.J. Goicoechea; 'Ken Conley'; 'Ladd Dubray'; 'Lloyd Morrison'; 'Lynford Miller'; 'Mark Moyle'; 'Martin Etcheverry'; 'Martin Etcheverry'; 'Marty Plaskett'; 'Matthew Morrison'; 'Nick Etcheverry'; 'Paul Etzler'; 'Pete Goicoechea'; 'Robert Beck'; 'Tim & Sandie Halpin'; 'Tim Bailey'; 'Travis Gallagher'; 'schay@live.com'; 'Vickie Buchanan'; 'Wayne Conway'; 'doug@sadlerranch.org'; 'dofr@comcast.net'; 'Patrick Rogers (progers@generalmoly.com)'; 'chadbliss@mwpower.org'; 'imrenner@yahoo.com'; 'buckaroodan@gmail.com'; 'rhunt29085@AOL.com'; 'rbjballen2@gmail.com'; 'haystaxwest@gmail.com'; 'matt6560@hotmail.com'; 'bellfarmingco@aol.com'; 'Jim Ithurralde'; 'conleyag@gmail.com'; 'huntnboy@gmail.com'; 'lamarmoyle@gmail.com'; 'jsestanovich@gmail.com'; 'saragroth67@gmail.com'; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; 'Ari Erickson'; 'ropin4fun2@yahoo.com'; 'Jasmine, Jaime - Elko, NV (JaimeJasmine@nv.usda.gov)'; 'kkinsella@generalmoly.com'; 'grothhay@gmail.com'; 'cdubray@frontier.com'; 'bryan562185@gmail.com'; 'Sandy Green'; 'corbinknowles@cableone.net'; 'jeffbulkley@gmail.com'; 'mwpkevin@mwpower.net'; 'terrilynnbrown9@gmail.com'; 'Carol Bailey (rangeriders@yahoo.com)'; 'Jerry & Trina Machachek'; 'dvfarmgirl@aol.com'; 'ropp91 @gmail.com'; 'randye@mwpower.org'; 'Debbie Lassiter'; 'minonancy@hotmail.com'; 'Joseph Martini'; 'countrymortgage@aol.com'; 'andcgo@gmail.com'; 'minoletti3j@yahoo.com'; 'momma_wood@hotmail.com'; 'ab24602@gmail.com'; 'rotoone@aol.com'; 'btalbot@generalmoly.com'; 'dbarmranch@mwpower.net'
Cc:	'Steve Walker'; 'Rick Felling'; 'Jason King'; 'Steve Lewis'; 'Kelvin Hickenbottom'; Jackie Berg; Jessica Santoyo; 'mccuing@unce.unr.edu'
Subject:	GMP Q&A Meeting - Monday, May 22 at 6 pm
Attachments:	DV GMP May 2017 Draft.pdf; DV GMP May 2017 Draft.docx; Diamond Valley priority sorted UG 2017-05-03.xlsx

All:

This a reminder of the May 22 evening meeting on the Diamond Valley Groundwater Management Plan. The meeting will start at 6:00 pm and the Advisory Board will be in attendance to answer questions. Refreshments will be provided, courtesy of the Conservation District.

Attached is the latest draft of the GMP in both Word and PDF versions. It is nearly at the point of being ready for gathering signatures. If you have questions, concerns, or suggestions, please attend the meeting.

Finally, attached is the most recent water rights abstract (spreadsheet) ordered by priority.

Best,
Jake Tibbitts

DV Groundwater Management Plan Meeting May 22, 2017 6:00 PM

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JERRY SESTANOVICH	HC62 BOX6240Eu	318-0119
Jim GALLAGHER	HC62 Box 62143	233 3542
MARGY PLASTETT	PO Box 10	775.724.0087
Travis Gallagher	HC62 Box 62144	775 5602694
Carol & Bob Burnham	HC62 Box 62153	burnhamhayfarm@msn.com 775-237-5643
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RANDY HASSEN	PO. Box 626	225-934-5627
Bill Norton	Hc.62 Box 62150	775-318-0187
Patricia Norton	" "	237-5648
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Dan Baumann	POB881 - Eureka	(775) 934-4750
Jim Moyle	P.O. Box 128 "	775 237 5719
Rick Felling	Carson City	775 684-2866/rfelling@dwr.nv.gov
JOSEPH MARTINI	230 S. Rock Blvd Reno NV 89502	775 420 1456
Chad Bliss	P.O. Box 545 Ely, NV 89316	775-293-5524
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Anthony Miller	HC 62 Box 62152 Eureka NV 89316	775 318 0366

DV Groundwater Management Plan Meeting May 22, 2017 6:00 PM

NAME	ADDRESS	PHONE NUMBER
Tim + Sandy Halpin	P.O. Box 538	237-5027
Dale Burgess		775-232-2108
Delmar	150 Hy 278	775 385 7512

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Wednesday, July 26, 2017 4:06 PM
To:	Rick Felling; Jason King
Subject:	RE: DV GMP for your review
Attachments:	DV GMP May 2017 Draft - without appendices.docx

Jason and Rick,

Please see the email below. I'm glad I had the chance to catch Rick last week in Elko at the HRB meeting to find out you never received the draft DV GMP for review at the end of May. I looked back through my emails and it never gave me a notice that it bounced back. But after looking at the file size, it was over 20 MB. Many of the appendices were really creating a large file size due to being copies of PDFs and having many figures. So, I removed the appendices that were making it too large. Attached is the draft GMP without all of the appendices. I'll send a CD or jump drive with the complete draft GMP on it by the end of the week.

Hopefully you'll get the chance to give this your thorough review soon so we can start the process of finalizing it and gathering petition signatures.

Thanks,
Jake

From: Jake Tibbitts
Sent: Tuesday, May 30, 2017 3:44 PM
To: 'Rick Felling' <rfelling@water.nv.gov>; 'Jason King' <jking@water.nv.gov>;
Subject: DV GMP for your review

Dear Jason and Rick,

I've attached the most recent GMP that incorporates all of the changes from previous reviews from your office as well as from the water rights holders that have been attending the meeting. Please note that we tried to provide the GMP to you as a complete package with all of the appendices populated, but there are still a few things that need to be worked into the appendices. The draft GMP itself is complete. As Rick knows, at the May 22 meeting at the Opera House, it was determined by the group that from their perspective, the GMP is at the point where petition signatures can be gathered. However, they did not want to move forward with gathering signatures to find that there was language that you could not accept or you needed clarity on. This would require changes to the GMP and another difficult effort to re-gather signatures.

The document is in Word to assist you in your review. Please don't hesitate to contact me if you have any questions. We look forward to your review.

Best,

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
Eureka, NV 89316

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Monday, October 02, 2017 9:09 AM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; Jim Ithurralde; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; Jerry & Trina Machachek; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com
Cc:	'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject:	RE: Save the Date: Next GMP Meeting - Monday, October 9
Attachments:	DV GMP May 2017 Draft _NDWR edits.docx

This is a reminder of the next GMP meeting to be held a week from today.

The State Engineer's office completed their review of the Draft GMP. Their edited workup is attached. The main items for next week's meeting will be discussion and addressing of this review and next steps.

Have a great week and see you all next Monday.

Jake

From: Jake Tibbitts
Sent: Tuesday, September 12, 2017 8:27 AM
To: 'Lynn Conley' <dnrpca@gmail.com>; 'Anthony Miller' <lionsunlimited@gmail.com>; 'Billy Norton' <nortoncritters@yahoo.com>; 'Bob Burnham' <burnhamhayfarm@msn.com>; 'Carrie Dubray' <lazygbaraqhas@gmail.com>; 'Craig Benson' <haystax@icloud.com>; 'D'Mark Mick' <dmarkmick@firstcommercellc.com>; 'Dale Bugenig' <eurekah2o.bugenig@gmail.com>; 'Dave & Leora Betschart' <leorabetschart@gmail.com>; 'Denise Moyle' <deniselmoyle@gmail.com>; 'Dusty Moyle' <dustymoyle1@gmail.com>; 'Fred Etchegaray' <fred.etchegaray@yahoo.com>; 'Jayme Halpin' <halpin40@hotmail.com>; 'Jeff Lommori'

<dirtandpots@gmail.com>; 'Jerry & Trina Machachek' <jerrytrina@sbcglobal.net>; 'Jerry Sestanovich' <csestanovich@gmail.com>; 'Jim Baumann' <simpsoncreekranch@gmail.com>; 'Jim Gallagher' <JGEU45@gmail.com>; 'Jim Ithurralde' <basqboy@gmail.com>; J.J. Goicoechea <JGoicoechea@EurekaCountyNV.gov>; 'Ken Conley' <bkconley@gmail.com>; 'Ladd Dubray' <directforce_ladd@frontier.com>; 'Lloyd Morrison' <lloyd89316@yahoo.com>; 'Lynford Miller' <lynford.miller@gmail.com>; 'Mark Moyle' <nhc.moyle@gmail.com>; 'Martin Etcheverry' <midgeamachi@aol.com>; 'Martin Etcheverry' <martin@eresheepcompany.com>; 'Marty Plaskett' <diamondvalleyhay@yahoo.com>; 'Matthew Morrison' <matt@mchaynevada.com>; 'Nick Etcheverry' <nicketcheverry@yahoo.com>; 'Paul Etzler' <p_etzler@msn.com>; 'Pete Goicoechea' <Pete.Goicoechea@sen.state.nv.us>; 'Robert Beck' <rbecknet@gmail.com>; 'Tim & Sandie Halpin' <tshalpin@gmail.com>; 'Tim Bailey' <t_cbailey@yahoo.com>; 'Travis Gallagher' <eu93tg@aol.com>; 'schay@live.com' <schay@live.com>; 'Vickie Buchanan' <vckbuchanan@gmail.com>; 'Wayne Conway' <waynenco@gmail.com>; 'doug@sadlerranch.org' <doug@sadlerranch.org>; 'dofr@comcast.net' <dofr@comcast.net>; 'Patrick Rogers (progers@generalmoly.com)' <progers@generalmoly.com>; 'chadbliss@mwpower.org' <chadbliss@mwpower.org>; 'imrenner@yahoo.com' <imrenner@yahoo.com>; 'buckaroodan@gmail.com' <buckaroodan@gmail.com>; 'rhunt29085@AOL.com' <rhunt29085@AOL.com>; 'rbjballen2@gmail.com' <rbjballen2@gmail.com>; 'haystaxwest@gmail.com' <haystaxwest@gmail.com>; 'matt6560@hotmail.com' <matt6560@hotmail.com>; 'bellfarmingco@aol.com' <bellfarmingco@aol.com>; 'Jim Ithurralde' <basqboy@gmail.com>; 'conleyag@gmail.com' <conleyag@gmail.com>; 'huntnboy@gmail.com' <huntnboy@gmail.com>; 'lamarmoyle@gmail.com' <lamarmoyle@gmail.com>; 'jsestanovich@gmail.com' <jsestanovich@gmail.com>; 'saragroth67@gmail.com' <saragroth67@gmail.com>; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)' <Ty@TyEricksonMD.com>; 'Ari Erickson' <Ari@gullsil.com>; 'ropin4fun2@yahoo.com' <ropin4fun2@yahoo.com>; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)' <Jaime.Jasmine@nv.usda.gov>; 'kkinsella@generalmoly.com' <kkinsella@generalmoly.com>; 'grothhay@gmail.com' <grothhay@gmail.com>; 'cdubray@frontier.com' <cdubray@frontier.com>; 'bryan562185@gmail.com' <bryan562185@gmail.com>; 'Sandy Green' <sandygreen01@gmail.com>; 'corbinknowles@cableone.net' <corbinknowles@cableone.net>; 'jeffbulkley@gmail.com' <jeffbulkley@gmail.com>; 'mwpkevin@mwpower.net' <mwpkevin@mwpower.net>; 'terrilynnbrown9@gmail.com' <terrilynnbrown9@gmail.com>; 'Carol Bailey (rangeriders@yahoo.com)' <rangeriders@yahoo.com>; 'Jerry & Trina Machachek' <jerrytrina@sbcglobal.net>; 'dvfarmgirl@aol.com' <dvfarmgirl@aol.com>; 'ropp91@gmail.com' <ropp91@gmail.com>; 'randye@mwpower.org' <randye@mwpower.org>; 'Debbie Lassiter' <debbie.lassiter@elkomininggroup.com>; 'minonancy@hotmail.com' <minonancy@hotmail.com>; 'Joseph Martini' <joseph.martini@elkomininggroup.com>; 'countrymortgage@aol.com' <countrymortgage@aol.com>; 'andcgo@gmail.com' <andcgo@gmail.com>; 'minoletti3j@yahoo.com' <minoletti3j@yahoo.com>; 'momma_wood@hotmail.com' <momma_wood@hotmail.com>; 'ab24602@gmail.com' <ab24602@gmail.com>; 'rotoone@aol.com' <rotoone@aol.com>; 'btalbot@generalmoly.com' <btalbot@generalmoly.com>; 'dbarmranch@mwpower.net' <dbarmranch@mwpower.net>; 'minoletti5@yahoo.com' <minoletti5@yahoo.com>
Cc: 'Steve Walker' <stevewalker@gbis.com>; 'Rick Felling' <rfelling@water.nv.gov>; 'Jason King' <jking@water.nv.gov>; 'Steve Lewis' <lewisst@UNCE.unr.edu>; 'Kelvin Hickenbottom' <kwhicken@water.nv.gov>; Jackie Berg <JBerg@EurekaCountyNV.gov>; Jessica Santoyo <JSantoyo@EurekaCountyNV.gov>; 'mccuing@unce.unr.edu' <mccuing@unce.unr.edu>
Subject: Save the Date: Next GMP Meeting - Monday, October 9
Importance: High

Please save the date for the next full-group Diamond Valley Groundwater Management Plan meeting to be held **Monday, October 9 at 9:00 am**. The State Engineer's office will have their review of the GMP complete and the main purpose of the meeting on October 9 will be to address the State Engineer's review points.

Attached is the most recent version of the GMP which is the version the State Engineer's office is currently reviewing (without all of the appendices).

Jake Tibbitts
Natural Resources Manager
Eureka County, NV

October 9, 2017 GMP Mtg.

Name	email (or phone if no email)
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Bob Burnham	

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Thursday, November 09, 2017 10:58 AM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; Jim Ithurralde; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; Jerry & Trina Machachek; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com
Cc:	'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject:	Re: Save the Date: Next GMP Meeting - Wednesday, November 15

This is a reminder of the GMP meeting next Wednesday. This is a very important meeting to attend. There are some important items to go over and make decisions on, including addressing the State Engineer's review points.

Hope you can all make it.

Jake

From: Jake Tibbitts
Sent: Thursday, October 12, 2017 10:41:27 AM
To: Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; Jim Ithurralde; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com;

jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; Jerry & Trina Machachek; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602@gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com
Cc: 'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject: Save the Date: Next GMP Meeting - Wednesday, November 15

Please save the date for the next full-group Diamond Valley Groundwater Management Plan meeting to be held **Wednesday, November 15 at 9:00 am**. There were some relatively significant changes to the GMP discussed at the last meeting based in part on the State Engineer's review of the GMP. The November meeting will be an important one for everybody to attend. Please plan on joining.

Jake Tibbitts
Natural Resources Manager
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Nov. 15, 2017 GMP Mtg.

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Jake Tibbitts

From: Jake Tibbitts
Sent: Tuesday, November 28, 2017 2:06 PM
To: Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com
Cc: 'Steve Walker'; Rick Felling; Jason King; Steve Lewis; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject: Save the Date: Next GMP Meeting - Wednesday, December 13

All:

Please save the date for the next full-group Diamond Valley Groundwater Management Plan meeting to be held **Wednesday, December 13 at 9:00 am at the County Commission Chambers (Courthouse)**.

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December 13, 2017 GMP Mtg

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Sent:	Tuesday, December 19, 2017 10:26 AM
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Cc:	'Steve Walker'; Rick Felling; Jason King; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu
Subject:	Save the Date - GMP meeting January 22

Please save the date for the next full-group Diamond Valley Groundwater Management Plan meeting scheduled for Monday, January 22 at 9:00 am at the Commissioners' Chambers.

From my perspective, it appears that the GMP is getting very close to being complete with a couple important details to still work out. The meeting in January will be very important to attend so these crucial loose ends can be buttoned up.

My very best wishes to each of you and yours during this holiday season.

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Jan. 22, 2018 GMP Mtg.

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From: Jake Tibbitts
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To: Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; JJ. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com; Mike Worley
Cc: 'Steve Walker'; Jason King; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu; Adam Sullivan
Subject: RE: Next GMP meeting, Feb. 21, and most recent draft of GMP
Attachments: GMP Mtg. 1.22.18 Notecards and other written comments on GMP.docx

Another reminder about tomorrow's meeting.

Attached is a list of comments, issues, etc. that came out of the full-group's exercise at the last meeting as well as other comments that have been presented in writing about the GMP over the last couple years. We will be discussing these tomorrow as well.

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Subject: RE: Next GMP meeting, Feb. 21, and most recent draft of GMP

This is a reminder of the GMP meeting next week on the 21st at 9:00 am at the Courthouse. The State Engineer's office completed their review of the most recent draft and it is attached. As noted below, the meeting will also be an opportunity to discuss an Executive Summary and a list of questions and responses for those issues that have been discussed and addressed that continue to come up at these meetings. We will also be discussing the State Engineer assessment needed to administer the GMP.

See you all next week.

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Subject: Next GMP meeting, Feb. 21, and most recent draft of GMP

Please mark your calendars for the next Diamond Valley GMP meeting scheduled for Wednesday, February 21, at 9:00 am at the Commissioners' Chambers in the Courthouse.

Attached is the most recent draft GMP. This version is a clean version with no red-lines or comments included and incorporates all of the edits based on the State Engineer's previous review and the last three full-group meetings. Based on Monday's full group meeting, this version has been sent back to the State Engineer's office for one more review. Also, at meeting on Monday, the group asked the Advisory Board to put together an Executive Summary and a list of questions and responses for those issues that have been discussed and addressed that continue to come up at these meetings.

Depending on the responses from the State Engineer's review, the meeting on February 21 could be a final full-group meeting before moving forward with gathering signatures on the petition to move the plan to the State Engineer for approval.

I hope you all have a great weekend.

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Feb. 21, 2018 GMP Meeting

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March 29, 18 GMP Mtg

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Jake Tibbitts

From:	Jake Tibbitts
Sent:	Friday, April 20, 2018 12:21 PM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; J.J. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (JaimeJasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com; Mike Worley
Cc:	'Steve Walker'; Jason King; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu; Adam Sullivan
Subject:	GMP meeting reminder - Tuesday, April 24 at 9:00 am
Attachments:	DV GMP April 2018 Draft incorporating all edits to date.docx

Good afternoon, all. This is a reminder of the GMP meeting next Tuesday, April 24, at 9:00 am at the Courthouse. Attached is the most recent draft GMP that incorporates all changes accepted by the group at the last meeting and has a few additional red-line changes to be discussed. Also at the meeting next week, we will discuss and work out details on the upcoming petition process and discuss the status of the Executive Summary, Table of Contents, and Frequently Asked Questions/Issues and Concerns Identified document.

See you all there.

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
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4/24/18 GMP Meeting

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GMP Issues and Concerns Identified Through the Process*

Overarching comment response: This GMP does not address inequities of the past. The GMP starts with current pumping levels and current water rights in good standing and works forward to reduce pumping to sustainable levels.

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- How do we get folks to sign petition that have not attended meetings or are "watching" from the sidelines?
  - Those that support GMP need to work with those that may not be inclined to sign the petition. Understanding the alternative – all junior pumping curtailed – needs to be understood by those choosing not to participate and/or sign the petition.
- While it may be difficult, we should go back and document the big issues and how we got where we are.
  - That's the purpose of this list and other comments from folks.
- GMP is a voluntary curtailment.
  - Signing the petition to have NSE approve the plan is voluntary. The GMP process has been voluntary. But, when the GMP is approved, all uses that fall under the GMP are required to follow the plan and the GMP is no longer voluntary.
- Does the GMP represent priority?
  - Yes, refer to share allocation in GMP. There is still disagreement from some about the spread between senior and junior water rights holders being 20%.
- How will shares be calculated?
  - Section 12.4
- What is the difference between shares and annual allocation?
  - Sec 12.4; shares are based off the full volume of the base water right with an adjustment based on priority. Sec 13.1 - Allocations change each year and result in water per year (af) based on pumping reductions outlined in the GMP. Shares are used to calculate wet water received in any given year of the GMP based on total water to be allocated according to the pumping reduction table and groundwater monitoring.
- How will annual allocation be determined?
  - In GMP
- Why is there depreciation of banked water?
  - In GMP; NSE requires all ASR-type (aquifer storage and recovery) projects in the State of Nevada to account for losses. While not a an ASR project, the GMP does allow leaving groundwater in the aquifer for use in future years and all of this water "banked" is not available in the future.
- Is an acre feet of water a full share?
  - In GMP. No; shares are based on paper water rights and water allocated each year in acre-feet is based on pumping allowed in that given year.
- Will the state issue the water cut for the next year?
  - 2019 expected to be Year 1 – this change will be made in GMP. NSE meter order in place now. It is recommended that water users use 2018 as if under the GMP including installing the approved meter and tracking water usage.
- Who's presenting this plan to the County Commissioners? Advisory Board. Are they in support?
  - The County has the opportunity to sign the petition the same as any individual groundwater rights holder does. The AB does not plan on seeking BoCC approval. Individuals can try to convince their elected officials however they deem necessary.
- No one has the right to tell me how to run my farm/land.
  - Pumping reduction plan in GMP does not dictate any land use or farming practice. GMP focuses on water pumping reductions, not how to get there individually.

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- I'm (I think) a senior water right holder so this shouldn't apply to me. I shouldn't have to change.
    - Some individuals aren't sure about their status and believe they have senior rights, but may not. This is a collective effort that incorporates priority in the way shares are issued. It is intended to meet the vision of shared sacrifice by all with junior rights sacrificing more than seniors to reduce pumping to sustainable levels. This GMP was developed to avoid strict priority curtailment. The GMP was developed under Water Law provisions. If the NSE approves the GMP, he believes it comports with Water Law. No GMP is litigation proof.
- Let them curtail... I'm (I think) a senior right holder and curtailment won't effect me.
    - Some individuals aren't sure about their status and believe they have senior rights, but may not. This is a collective effort that incorporates priority in the way shares are issued. It is intended to meet the vision of shared sacrifice by all with junior rights sacrificing more than seniors to reduce pumping to sustainable levels. This GMP was developed to avoid strict priority curtailment. The GMP was developed under Water Law provisions. If the NSE approves the GMP, he believes it comports with Water Law. No GMP is litigation proof.
    - If you are senior, it is true that a curtailment by priority would allow for continued use of the water you prove you've used. It would not overcome "use it or lose it" and curtailment could endanger water not used under senior permits. There may be other effects beyond just water such as hay marketing ability, rodents, weeds, etc.
- (I believe) I'm a senior right holder but junior holders get more water than me.
    - Per acre, seniors will always have more shares that translate to more water. Looking at a quarter-section collectively, a junior may end up with more water if their corners are water righted and a senior does not have water rights on their corners.
- I'm going to run out of water before this process is over.
    - There are two different ways to run out of water; 1) a well running dry and 2) not having enough water under the GMP with current rights as is. The GMP is a pumping reduction plan that is intended to solve issue 1. The GMP does not guarantee that replacement or deepening of wells will not be required but does work towards reducing pumping to stabilize the water table. For point 2, every water rights holder under the GMP will have to make adjustments in water use practices and/or purchase additional water to meet water demands.
- This plan is going to bankrupt/put me out of business.
    - The GMP does not dictate how one will meet pumping reductions. The GMP allows banking, trading, and sales of water in ways not currently allowed. Every water rights holder under the GMP will have to make adjustments in water use practices and/or purchase additional water to meet water demands.
- Its not possible to grow alfalfa/timothy on anything less than 1,000 GPM.
    - That has been proven to be untrue. Studies in Diamond Valley (see U of I, NIWR of DWR) and data from farmers in DV. GMP does not dictate system or how to use water. Individual fine-tuning of each individual well and system will likely need to occur.
- I can't make a living/grow anything else in Diamond Valley.
    - The GMP does not dictate how one will meet pumping reductions. The GMP allows banking, trading, and sales of water in ways not currently allowed. Every water rights holder under the GMP will have to make adjustments in water use practices and/or purchase additional water to meet water demands.

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- This is just a stop measure by the SWE to get me to forfeit my water rights.
  - The GMP has language to preclude this – Sec. 26 – base rights held in same status as when GMP approved and any subsequent changes following current right change process. Also, recent changes in water law in 2017 session require letter and 1 year to cure if NSE wishes to pursue forfeiture.
- Why have we not received support from our state legislator?
  - Not within the scope of the GMP. The legislature passed AB 419 that allowed a GMP to be developed in the first place as a means to avoid strict curtailment by priority.
- GMP may have been better labeled as water reform.
  - A GMP is allowed in a Critical Mgmt Area (CMA) under current NV Water Law.
- Increase monitoring of annual water level to verify plan is working.
  - The GMP has a heavy monitoring component through the DWR. There is already much groundwater monitoring data in DV to compare to as the GMP progresses. Allocations at year 10 and beyond will be based on water table response which will require detailed monitoring.
- Why does this plan exempt stock water, domestic, and mining water rights? Aren't they groundwater use?
  - Mining rights are not exempt other than a couple that do not have irrigation base rights. All of the exempt uses combined are less than 5% of the total use. The GMP does have provisions related to these rights. The group that developed the GMP did not believe that the efforts needed to include these uses would be worth any benefit to be gained by including them.
- If I had never read the plan and asked to sign my first concern would be priority in the plan.
  - See above. Differing sides still exist on this issue. The 20% was a compromise but there was not unanimity.
- I don't like by starting with dry water in the plan.
  - Valid water rights not used (i.e. "dry") are nonetheless still in good standing. See above about addressing past inequities.
- Why is the senior to junior priority factor spread only 20%? The spread should be higher to give the senior water rights holders more shares.
  - See above. Differing sides still exist on this issue. The 20% was a compromise but there was not unanimity.
- I am a senior water right holder. Why should I give up some of my certificated water to keep junior pumpers from being curtailed under a curtailment scenario?
  - See above. GMP allowance in Water Law is intended to avoid strict curtailment. Some uncertainty on where the senior-junior line is – there is a grey area of seniority.
- I am worried about litigation down the road.
  - The GMP is not litigation proof. The process was intended to involve everybody to find a GMP that would have consensus but it is understood that there are some that may not find the GMP acceptable.
- This plan is an extension of the integrity of this community from the beginning (1950's), to survive as a community and to enjoy the successes of business family, education, county services and lifestyle. We are blazing a new trail no doubt, we cannot fail due to narrow mindedness or inability to see the benefits of this survival, sustainable course of action.

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  - See above. The GMP process was intended to involve everybody to find a GMP that would have consensus and full community support but it is understood that there are some that may not find the GMP acceptable.
- Why are the majority of JR right holders able to dictate what SRS have?
  - Overappropriation of DV has resulted in this misbalance. The GMP provisions in the Law require a majority of all water rights holders to move a GMP forward. Juniors do outnumber seniors in DV. There are many senior water rights holders that have supported the GMP as written.
- How is the priority slide determined?
  - Based on many GMP meetings and workshops where this compromise was determined.
- Why should SRS sign on to this process?
  - Each person will have to weigh the benefits of the GMP to decide whether or not to sign. Some things to consider: flexibility, promotes efficient use of a limited resource, community benefits, allows banking and trading of water as a commodity currently not easily done.
- How does this allow a small producer to continue farming?
  - The same opportunities exist for each acre of land in DV. The GMP has opportunities built in for water flexibility that do not currently exist for small and large producers. The GMP was not developed to separate benefits based on farm size.
- How many years can a single pivot without corners farm?
  - Depends on irrigation practices and water banking and trading. The same opportunities exist for each acre of land in DV. The GMP was not developed based on a single pivot basis.
- Why are we change it use it or lose it law without requiring proof of beneficial use?
  - The GMP contemplates all water allocated under the plan to be used at some point. See above if question is related to the issue of paper water. The GMP considers any valid right in good standing to be issued shares.
- Those with reissued certificates knew they were on the chopping block why are we absolving them.
  - See header.
- Junior holders will out-vote seniors at every occasion.
  - See above.
- Initial conversion and allocation is not fair to seniors.
  - See above.
- 1 vote per permit is not fair to seniors.
  - Water Law gives each permit/certificate a vote.
- Water that was re-issued needs to go away before we allocate water.
  - See header.
- Small acreage owners of senior water will not be able to survive.
  - See above.
- Cutting an operation with senior water in half is not fair if they cannot have an equitable vote.
  - See above.
- Vote based on converted shares X Priority.

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  - GMP petition does not weigh priority for votes; each permit or certificate, regardless of priority or volume, gets one signature per permit based on Water Law. AB election is weighted by shares which gives more weight to senior shareholders.
- Senior right holders, in particular do not see how they can survive the allotment reductions.
  - See above.
- People without water righted corners feel that they are being unfairly treated.
  - Acre per acre equity
- Many people still don't understand how the plan will affect them quantitatively. They need to be educated.
- Some water right holders i.e. stock water, claim much more water than they have ever used.
  - Provision in GMP to request NSE to address this issue. GMP precludes the exempt uses from being converted to irrigation.
- Some holder still carry old grievance over past inequalities. How do we move past these old grievances.
  - Header.
- Why is the spread from seniority 20%?
  - See above.
- Why are we starting at 76,000 acre feet?
  - NSE has required that this GMP reduce pumping. 76K is the current estimate of pumping, hence, the starting point.
- Why does dry water get a share in the GMP if we are trying to reduce pumping dry water shouldn't get water?
  - Good standing. Pumping cannot exceed starting point of 76K af.
- Why do stock water rights get to vote on petition of GMP if they are not included in the GMP?
  - State law requires all groundwater rights to be able to sign petition.
- Under the meter issue by State Engineer I can use any meter, why is the GMP requiring the Siemans?
  - Group developing GMP wanted to remove arguments about accuracy and the GMP needed to be consistent and uniform.
- Why are we allowing water to be taken out of DV if the owner wants? Shouldn't we keep water in our valley?
  - The GMP as written does **NOT** allow export of water from DV.
- Why have I been going to a meeting every month since April 2015 and understand the GMP but half of the farmers in the valley can't come to 1 meeting and continue to complain why they don't understand?
  - People cannot be forced to participate. The GMP process was an effort to gain consensus and get everybody involved.
- Unfair for people w/o dry water on corners.
  - above
- Unfair for smaller operations vs. larger operations.
  - above
- Ability for future users to move H20 out of the basin.
  - Footnote allows a chance to look at this but does not mean that it will happen. For this to happen will require a majority of water rights holders to approve of a GMP amendment **AND** for the NSE to approve it.
- Destroy all the phreatophytes? Why?

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  - The GMP does not call for destruction of phreatophytes. The pumping reductions in the GMP will result in a slower decline of the water table and eventual stabilization thereby decreasing the impact to phreatophytes.
- People don't understand that it's this or strict curtailment by priority.
  - In plan
- People don't realize how much H2O it takes to grow a crop.
  - The GMP will incentivize efficient use of water.
- With continued over pumping comes a continue of damaging existing rights. Why shouldn't there be a mitigation plan for that in the big plan?
  - Guidance from NSE was that this GMP was to reduce pumping to sustainable levels, not mitigate and real or perceived conflicts. Reductions in pumping will ameliorate impacts due to groundwater pumping over time.
- Recharge over est.
  - USGS report is the best available science. The GMP has language about adjustments to be made based on future studies that come up with a different perennial yield. GMP must use the best available data.
- SR w/o corner severely impacted.
  - above
- Religious groups not voting
  - Can't force participation or signing of GMP.
- 80% is Too Much!!!!
  - See above.
- No compensation for Seniors.
  - This was discussed and guidance from NSE was that the GMP needed to focus on reducing pumping to sustainable levels and not on mitigation of conflicts or impacts.
- Initial inclusion of dry acres.
  - Good standing rights
- Some juniors have more water allocation than seniors.
  - Not on a per acre basis

- Concern about allowing GMP to continue even after CMA designation goes away
  - Legislative change needed for GMP to continue without CMA.
- Despite the over-appropriation that resulted in farmers competing for insufficient groundwater, pre-statutory rights must be protected
  - The GMP was written to exempt vested rights and does not limit the ability for vested rights holders or the State Engineer to take actions to protect vested rights. The GMP reduces pumping and stabilizes the water table providing benefit to all water uses in DV, including vested rights.
- The GMP must allow for the full replacement of vested rights that have been impacted by groundwater pumping of the Diamond Valley aquifer. It must also be capable of incorporating changes in the quantity of those rights as well as the final rights awarded through the adjudication process.
  - The GMP does not limit replacement of vested rights and will have to honor adjudication.

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- No part of the GMP should impinge on our vested water rights in any manner. For example, the quantity of those rights cannot be diminished whether we participate in a trading system or not. Any plan that approves the unauthorized taking or restriction of our water rights for the benefit of other water right holders is prohibited by law and will be considered a taking.
    - GMP does not include vested rights and in no way affects State Engineer or court authority to address conflicts with vested rights. The GMP has explicit language recognizing State Engineer authority to address conflicts.
- To protect our pre-statutory rights, the GMP must ensure that, as soon as practical, groundwater pumping is reduced to a level where there is no further net loss of groundwater from the Diamond Valley Basin's primary aquifer. New pumping rates must be based on sound scientific analysis and verified with robust groundwater modelling and monitoring.
    - It has taken nearly 60 years of over-appropriation and over-pumping to reach the current overdraft situation in DV. The GMP will reduce net-pumping to reach the perennial yield in about half that time or even one-third of that time if the most-aggressive pumping reductions are imposed. The GMP requires stabilization of water levels based on this same timeframe. The GMP reduces pumping from current levels by 30% in the first 10 years and net-pumping to perennial yield and stabilization of water levels within 22 and 35 years. Pumping reductions after Year 10 will be informed by robust groundwater monitoring to ensure stabilization of the water table is occurring.
- The USGS report on Diamond Valley (August, 2016) estimated the perennial yield of the Basin to be 35,000 acre-feet/year. Benchmark pumping reductions should take into account: a. replacing the loss of vested spring flow rights since it was measured by the USGS in 2010 and 2011; b. the loss of groundwater to evapotranspiration as described in the report and listed in Table 17 of the report.
    - See previous response on GMP interaction with vested rights.
      Water is managed in Nevada based on the perennial yield concept which seeks to "capture" or "salvage" groundwater loss due to ET by phreatophytes. Pumping in DV has yet to capture any significant ET by phreatophytes as noted in the USGS report and the comment. Based on the perennial yield concept, pumping only at 30,000 afa would also, over time, eventually capture ET by phreatophytes. It is very unlikely that valley floor springs will ever flow to the pre-development amounts especially given the fact that mitigation groundwater rights are being pumped very near these springs. The fact is that the GMP will delay full ET capture because of the significant pumping reductions in the GMP.
- If the final plan calls for continued pumping, significant additional permanent impacts to our vested rights as well as our domestic well rights will result. The GMP must include measures to mitigate those impacts.
    - See previous response. The GMP is not a mitigation plan, per se, but a pumping reduction plan which in itself provided mitigation over time.
- The concern that banking groundwater could increase groundwater evapotranspiration. Between the time of Harrill's report in 1968 and this recent USGS report, groundwater evapotranspiration has apparently changed very little; there was essentially no change in groundwater evapotranspiration despite huge changes in the amount of water stored in the aquifer. Relative to the massive declines in water levels, banking of water purchased but not used is unlikely to have a noticeable effect on water levels. These minor effects on groundwater storage are unlikely to impact groundwater evapotranspiration.

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  - The State Engineer required analysis to determine the appropriate level of banking depreciation, if any. The analysis in the GMP provided results that suggested depreciation of banked water would be required by the State Engineer.
- Consumptive mining and domestic rights. Consumptive mining and domestic rights need to be included in calculations of use within the basin. If they are not subject to reduction, then the amount of water available for other uses must be reduced accordingly.
  - These uses were considered as the GMP was developed. The bulk of all mining rights in DV are subject to the GMP and pumping reductions. While not under the GMP, domestic wells, municipal rights, and stockwater rights are still subject to regulation by the regular State Engineer processes.
- Rights that are only on paper. There are about 133,000 acre-feet of water rights on the books and many of these are not currently pumped. If all rights are eligible to be converted into shares and shares are valuable, then the owners of these inactive rights would enter them into the share market. If all 133,000 shares are put in the market, why would pumping in year 1 be limited 76,000 acre-feet?
  - This is a fundamental misunderstanding of how shares are allotted and pumping reduction met. The GMP does convert water rights in good standing to Shares but pumping will be based on current levels a go down. So, the amount of water available in any given year is divided into the number of Shares in DV. It is true that some water rights in good standing have not been used. Analysis completed during the GMP process determined that the large bulk of unused water rights is tied to corners of irrigation circles.
- Participation of vested rights. We believe the ability of vested rights to participate in the share system will allow flexibility in the distribution of water among users and will ultimately benefit the owners of both vested and junior rights.
  - Vested rights holders attending the meetings made it very clear that they did NOT wish to be part of the GMP.
- Unintended impacts of penalties. If water users will be penalized for going over their allocation, won't most farmers buy more water than they need? If that happens, could shares be unnecessarily tied up by cautious farmers?
  - Since the GMP starts with current pumping levels and only goes down, it is anticipated that not much water will be "tied up." If water were not needed at the current levels pumped, water being used would already be less than 76,000. Some farmers may wish to provide themselves a buffer of water to avoid penalties but it is anticipated that all water allocated under the GMP will be eventually used.
- Funding of the Authority by owners of vested rights. Owners of vested rights shouldn't be required to help fund the Authority unless they participate in the share system.
  - The GMP no longer has an Authority. The GMP uses the current special assessment authority of the State Engineer in Nevada Law to fund the GMP AND all other administration by the State Engineer in DV.
- Effect of share system on small farms. If farmers who have lost water have to purchase water from the share system to make up for their shortfall, won't small farmers eventually be at a disadvantage to larger operators? Farmers with multiple pivots often have a greater profit margin and can therefore afford to pay more for water than smaller farms. Doesn't that mean that small farms will eventually be outcompeted?
  - See previous response. The GMP provides acre-per-acre equity. Some economies of scale may exist for larger farmers.

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- Trading system. The share trading system needs to be described in great detail. Creating an efficient and tamper-proof mechanism for buying and selling shares will take considerable ingenuity, experience and skill.
    - The GMP only allows buying and selling of shares through the same process always followed by the State Engineer for buying and selling of water rights. Sale of water allocations will be done through a similar process with the State Engineer. The State Engineer's office has decades of experience and skill managing water rights.
- Piping configuration at the meters. If the configuration of piping above and below meters is important for accurate measurements, specifications for piping should be described.
    - The GMP requires installation according to manufacturer's specs which is spelled out in great detail with the meter documentation. It was determined that including this level of detail in the GMP would be redundant and unnecessary.
- Plan Amendments and Changes. The Plan should clearly lay out the process of how the plan would be amended or changed. This would include who would be authorized to recommend changes and what approval would be needed from the State and water users. Would a hearing process be needed?
    - Amendments to the GMP would be required to follow NRS. This would entail getting a majority of water rights holders to sign on to a petition requesting the change. Yes, NRS does require a hearing for approval of a GMP and any amendments.
- The draft plan does not protect our vested rights because it allows for continued drawdown of the aquifer for the next 30 years and beyond. Similarly, since the Plan would allow groundwater levels to drop indefinitely, any user in Diamond Valley dependent on groundwater would be adversely affected by the Plan.
    - The GMP has the stated goal of avoiding impairment of vested rights. The GMP does not preclude current efforts to mitigate declines in springs with vested claims and clearly recognizes the authority of the State Engineer to overcome conflicts with existing rights.
    - The GMP does not allow drawdown for "30 years and beyond." It has taken nearly 60 years of over-appropriation and over-pumping to reach the current overdraft situation in DV. The GMP will reduce net-pumping to reach the perennial yield in about half that time or even one-third of that time if the most-aggressive pumping reductions are imposed. The GMP requires stabilization of water levels based on this same timeframe. The GMP reduces pumping from current levels by 30% in the first 10 years and net-pumping to perennial yield and stabilization of water levels within 22 and 35 years.
- The USGS, in their report issued last August, estimated an annual net loss of 61,000 acre-feet of groundwater from storage in the Diamond Valley aquifer. The draft GMP proposes phasing in a reduction in pumping of up to 28,680 acre-feet per year. This goal for reduction is only half of what the USGS found is needed for sustainability. The GMP also ignores the need to replenish the 6,000 acre-feet that the USGS identified as lost flow from vested spring rights. And the 6,000 acre feet does not account for spring flow declines at the measured springs before the mid-1960s, after the study was completed, or at springs that were not measured. Over the next 30 years, the pumping allowed in the GMP will result in the loss of more than a million acre-feet of groundwater from storage. If 1 foot of drawdown occurs for every 28,000 acre-feet of groundwater withdrawal (Harrill's, 1968 report, Table 13) the result could be another fifty feet of permanent drawdown basin-wide in 30 years. In addition, groundwater levels would continue to decline beyond the 30-year timeline since the cutbacks outlined in the GMP aren't sufficient.
    - Water is managed in Nevada based on the perennial yield concept which seeks to "capture" or "salvage" groundwater loss due to ET by phreatophytes. Pumping in DV has yet to capture any significant ET by

phreatophytes as noted in the USGS report and the comment. Based on the perennial yield concept, pumping only at 30,000 afa would also, over time, eventually capture ET by phreatophytes. It is very unlikely that valley floor springs will ever flow to the pre-development amounts especially given the fact that mitigation groundwater rights are being pumped very near these springs. The fact is that the GMP will delay full ET capture because of the significant pumping reductions in the GMP. Based on the comment, one could also argue that increasing pumping, temporarily, is necessary to capture ET as soon as possible because this water is being "lost" from DV.

  - It has taken nearly 60 years of over-appropriation and over-pumping to reach the current overdraft situation in DV. The GMP will reduce net-pumping to reach the perennial yield in about half that time or even one-third of that time if the most-aggressive pumping reductions are imposed. The GMP requires stabilization of water levels based on this same timeframe. The GMP reduces pumping from current levels by 30% in the first 10 years and net-pumping to perennial yield and stabilization of water levels within 22 and 35 years.

- The recent ruling from the Nevada Supreme Court to protect Mud Spring requires a mitigation plan to be put in place prior to any pumping from the Moly Mine. If the GMP will result in continued impacts to the vested rights in Diamond Valley, it must also include a plan to mitigate any future impacts of that drawdown.
  - See previous responses. The GMP is not a mitigation plan, per se, but a pumping reduction plan which in itself provides mitigation over time. The GMP does not impair the ability for vested rights holders to be mitigated for any spring declines not does it preclude the State Engineer or a court from doing so. Mitigation of conflicted rights and the GMP development are separate processes.
- I heard third hand (so please forgive me if I have misunderstood the issues) that the State insists on the GMP shall penalize farmers who bank water. The rumor is that Rick Felling is saying that banked water will result in increased loss to phreatophyte and the quantity of water should be reduced if carried forward (like a negative interest rate). The GMP should allow farmers to bank water since a goal of the GMP should be to help farmers where it can. The idea that saving that tiny amount of water will affect phreatophytes is ridiculous.
  - Banking depreciation was determined based on guidance from the State Engineer's office and numerical flow modeling using the best available information.
- My understanding is that we will lose 1/3 (reduced to .661 %) of our water rights in year one because about 50,000 acre feet of currently unused water (some abandon) will be added into the equation, right?
  - This is a fundamental misunderstanding of how shares are allotted and pumping reduction met. The GMP does convert water rights in good standing to Shares but pumping will be based on current levels and go down. So, the amount of water available in any given year is divided into the number of Shares in DV. It is true that some water rights in good standing have not been used. Analysis completed during the GMP process determined that the large bulk of unused water rights is tied to corners of irrigation circles. Very few complete water rights are not being uses. Most "paper water" is tied to currently used permits/certificates.

I believe some 200,000 acre feet, or more, of that unused (some abandon) water could be "banked" just by year four or so. The GMP does not clearly state how this water will be reflected in the yearly allocation formula. Is my water right reduced further by the expanding water "bank" balance? This scheme to profit "use it or lose it" water clearly is destructive to some and benefits others. Especially since it grows by the year, not suffering the cuts the wet water user suffers. Please explain to me how your "banked" water is accounted for in later years in

the allocation formula or when someone decides to make a withdrawal. Obviously, the acre feet in the "bank" could quickly skyrocket for those that have water that, in my opinion should have been taken off the books.

- See above. Misunderstanding of how system works. Shares allotted does not equal water for use. GMP starts at current pumping levels and goes down. No water rights holder will receive additional reductions based on any banking. Allocations are not affected by amount of water banked in previous years because that water was already allocated and expected to be used. Water rights under the GMP in good standing are converted to Shares. The GMP does not address inequities of the past such as who or who has not used their water rights.

- The Plan does not discuss the impacts of groundwater drawdown, either unchecked as it is now, or reduced as proposed in the Groundwater Management Plan (GMP). Continued drawdown of the aquifer will allow continued farming and economic activity, but at a cost for others, such as domestic well owners, municipal water users, mining interests, vested water right holders, ranchers and even wildlife. The GMP should discuss impacts caused by the projected drawdown in the GMP, including the need to for some users to deepen wells and pay permanently higher electricity costs.
  - There are many reports, studies, testimony, etc. that discusses these things. The GMP has language that alludes to these impacts. All water rights holders in DV and those that have been working on this GMP are well aware of these impacts which are the reasons to move forward with the GMP. Including discussion of this level in the GMP does not gain anything as the GMP moves forward but serves to create a tone of conflict.
- Junior farmers will receive economic benefit from continued pumping, but others will bear a cost; the GMP essentially transfers the groundwater resource from one group to another. Those interests who will be losing access to the resource should be compensated, or the damage to their rights should be mitigated. The GMP contains no discussion of impacts caused by continued draw down, estimates of the costs of impacts or a plan for mitigating these losses. Nor does the Plan discuss the long term consequences of ongoing drawdown on farming itself. Those impacted by the plan should have access to information about its costs and a chance to comment on those costs before the plan is approved.
  - This level of analysis and discussion was not determined to be necessary because of the large range of uncertainties and assumptions such would provide. The GMP seeks to reduce pumping to sustainable levels and stabilize the water table within 22 to 35 years. Water users in DV are well aware of the need to reach this goal. The GMP is not a mitigation plan, per se, but will mitigate impacts as water levels are stabilized.
- Section 3: The Plan claims that, if the GMP is not implemented, the State Engineer must regulate by priority and possibly prohibit pumping of domestic wells. We disagree and believe that the State Engineer can give preference outside of the priority system to domestic users. While sounding the alarm that the State Engineer may curtail domestic wells if the plan isn't enacted, the Plan fails to address the long-term consequences of continued agricultural pumping on domestic wells if the plan is enacted (such as the drying up of domestic wells).
  - Nevada law does allow the State Engineer to designate preferred uses. The GMP does not assume what would be done in this case because it is not a requirement of law. Also, Nevada law regulated domestic use by priority the same as any other use. Section 3 is simply summarizing the statutory sideboards. The NRS specific to GMPs (NRS 534.110(7)(b)) unequivocally states that there is a requirement to regulate domestic wells with other water rights if a GMP is not developed in 10

years – "If a basin has been designated as a critical management area for at least 10 consecutive years, the State Engineer ***shall order that withdrawals, including, without limitation, withdrawals from domestic wells***, be restricted in that basin to conform to priority rights, unless a groundwater management plan has been approved for the basin pursuant to NRS 534.037." If the GMP is not enacted, impacts to domestic wells can arguably be much worse since less than a handful of domestic wells in DV are considered senior enough to avoid curtailment by priority.

  - GMP addresses exactly the use the comment specifies needs to be addressed - irrigation.

- Section 6, Goal A (Remove CMA designation by stabilizing groundwater levels): The reduction schedule in the GMP will not stabilize GW levels in 35 years. The 2016 USGS Report (See footnote 2 in GMP) describes an overdraft of about 66,900 acre-ft per year: "Estimated net groundwater withdrawal was about 65,000 acre-ft in the southern part and about 1,900 acre-ft in the northern part of Diamond Valley [*in 2011-2012*]". In other words, pumping is currently about 66,900 acre-feet too much. To achieve a stable resource, pumping would have to be reduced by 66,900 from 76,000 acre-feet, not a 35,000 acre-foot reduction. The perennial yield goal of 35,000 is based on the amount of water going into the aquifer, and how much used to flow out of it pre-development. It is not an estimate of how much can be safely removed by pumping. The USGS Report found that the loss of groundwater due to plant uptake, evaporation and replenishment of dried up springs approaches 30,000 acre-ft per year. This leaves little left for irrigation pumping.
  - Comment mischaracterizes the USGS report and is a misunderstanding of the use of the perennial yield concept. The USGS report does state that net pumping is 66,900 af. Net pumping is not the same as "overdraft" or "overpumping." Based on the perennial yield in the report of 35,000, the USGS report concludes that overdraft is 31,900 af. Based on perennial yield, the USGS report does in fact identify 29,000 af of ET that can be captured by groundwater pumping based on the perennial yield concept. This is exactly how NV water law is implemented – capturing water lost by ET. Taking the 6,000 af out of the equation for the springs in the groundwater discharge area leaves 29,000 af still not captured by groundwater pumping in DV. Each basin is in balance before any groundwater pumping takes place. It is recognized that transitional groundwater storage will be used until ET is captured.
- Section 6, Goal G (Avoid impairment of vested rights): Since the overdraft will continue indefinitely and the groundwater table will continue to decline basin-wide, vested rights will be impacted because the ability to withdraw groundwater will be impaired. The current GMP will result in an average Basin-wide drop of 50 feet in the groundwater table over 35 years and a drop of about 5 feet every 10 years after that.
  - The GMP does not allow overdraft to continue indefinitely. It has taken nearly 60 years of over-appropriation and over-pumping to reach the current overdraft situation in DV. The GMP will reduce net-pumping to reach the perennial yield in about half that time or even one-third of that time if the most-aggressive pumping reductions are imposed. The GMP requires stabilization of water levels based on this same timeframe. The GMP reduces pumping from current levels by 30% in the first 10 years and net-pumping to perennial yield and stabilization of water levels within 22 and 35 years. Pumping reductions after Year 10 will be informed by robust groundwater monitoring to ensure stabilization of the water table is occurring. Based on current understanding of the water table, it is expected that pumping reductions will start to stabilize the center of the drawdown area

(cone of depression) within just a few years. Also, ET has yet to be substantially captured by groundwater pumping. Capture of ET over time will also assist in stabilizing the water table.

- 11.3: Specific names should not be included in the plan and instead should be replaced by name of the Board positions and a description of the process by which new members selected. The Advisory Board should represent the public as a whole and not individual people.
    - The group developing the GMP wanted the names included so folks that have not participated up to this point would know who to contact for their specific questions, concerns, etc. The names are no longer the main text of the GMP but are referenced in a footnote.

The person representing the interests of those with vested spring rights should be selected by those with vested rights, not be the junior farmers. The interests of those with vested rights can't be represented if our representative is appointed by junior farmers. For example, the Democratic Party does not select which Republican can represent the Republican Party. 11.6.7: Procedure for filling empty Board seats: Non-vested farmers should not be deciding who represents mining interests, vested right interests or the interest of the community at large.

- The AB has no independent power and is simply an advisory body providing a forum for vetting local concerns and bridging the gap with the State Engineer. Any individual interest has the ability to advocate for their own or collective interests outside of the AB and the GMP has specific language allowing folks to petition the State Engineer on decisions without having to go through the AB. Further, there are very few "pure" single interest water rights holders in DV. For example, many of the mines also have farms in DV. Many ranchers are farmers. The group felt that following an election process similar to the County Commission would be useful where a Commissioner represents a specific district but is voted on by the county as a whole.

- Since groundwater is a community resource, a person from the community, perhaps someone dependent on Municipal water or a domestic well, with minimal other financial interests that are effected by the GMP, should be on the Board. That representative should ideally be appointed by the community at large.
    - Domestic wells and municipal uses are exempt from the GMP and the group felt that only those under the GMP should be represented on the AB. Again, the AB is simply an advisory body and has no independent authority.
- 13.9 ET Depreciation: There is no information supporting how the north-south dividing line was delineated. Similarly, support is also lacking for the 17% and 1% depreciation factors. Presumably the depreciation factor simulates the groundwater lost to Groundwater Evapotranspiration (ETgw) (see USGS, 2016 Report for definition of ETgw) when it is stored. If stored groundwater is being lost to ETgw in the Basin, then all groundwater is subject to ETgw loss. If groundwater is lost to ETgw then its not available to pump. Loss of groundwater due to ETgw is described in detail in the 2016 USGS report. These losses should be considered when calculating how much water can be safely pumped by farmers.
    - Appendix J will contain this detailed analysis on the depreciation. The line was derived from Harrill's report from 1966. It is true that pumping in DV has yet to substantially capture ET loss by phreatophytes. This is the water available for groundwater pumping on a "perennial" basis. These losses were considered in development of the GMP and in framing the goals and benchmark pumping reductions. The GMP requires that net-pumping get to perennial yield within 22 to 35 years. It must be understood that pumping reductions will also reduce the rate in which ET will be captured.

GMP Issues and Concerns Identified Through the Process*

Overarching comment response: This GMP does not address inequities of the past. The GMP starts with current pumping levels and current water rights in good standing and works forward to reduce pumping to sustainable levels.

*Issues or concerns submitted in writing are preserved word-for-word so there may be various grammatical and spelling errors.

- 13.12: Since determining the rate of pumping reduction is such an important decision, the GMP should describe who will make the decision and the criteria to be used. It should describe how groundwater levels are translated into reduction targets and if groundwater modelling will be used.
    - The GMP retains State Engineer authority to make these determinations based on data collection and consultation with the AB. It was determined by the group that the exact process needs to be fairly flexible but still be based on data. Groundwater modeling is an option for use as the GMP progresses. The GMP allows more aggressive pumping reductions to be put in place if the water table is not stabilizing fast enough as determined by the State Engineer. In this case, this would accelerate the GMP by 13 years.
- 13.13 Perennial yield and a stabilized groundwater levels are two different goals. If both are goals, then the Plan should describe how they are linked. Adjusting the pumping reduction should not be limited by the 2% maximum cumulative adjustment. Pumping reductions should be determined by what is necessary to bring the Basin back into balance. The methodology for determining the Annual Allocation should also be described.
    - Yes, the two goals are linked. Until ET is captured, transitional storage will continue to be used with associated water drawdown. However, based on monitoring data in DV, small reductions in pumping have created substantial reductions in drawdown. Based on past monitoring in DV, the pumping reductions in the GMP will result in water levels in the main drawdown cone of depression stabilizing and even rising in a few years. The GMP outlines how the Annual Allocations will be made. It is expected that they will follow the benchmark reductions but can be greater if stabilization is not occurring fast enough. The group wanted some certainty for planning and financing purposes and set this certainty set at the 2% cumulative amount. While the limitation is on the cumulative pumping amount, year-to-year reductions after Year 10 would actually average 1.75% under the benchmark reductions and 3.5% under the most aggressive reductions. Some years could see over 4% reductions based on the immediate previous year. This actually provides a lot of room for the State Engineer to make adjustments as necessary should the water table not respond to the pumping reductions favorably.
- 15.4 Order 1292 apparently supersedes meter requirements as described by the GMP. The GMP should leave meter requirements and enforcement to the State Engineer.
    - The GMP, once approved, would be through an Order of the State Engineer and will supersede previous Orders. If the GMP is approved, the meter requirements and enforcement would be left to the State Engineer. A uniform and highly accurate flow meter is needed to remove arguments about accuracy and to provide consistent data. See flow meter testing from USU that clearly highlighted the large range of variability in meters. The GMP wishes to move past data wrangling and accuracy arguments.
- 19.3 The Plan should describe how water can be returned to the aquifer in a way that provides a net-benefit (or provide an example).
    - One typical example: Mines typically dewater compartmentalized bedrock or carbonate aquifers. Most water in DV is drawn from the alluvial fill aquifer. Removing of water from bedrock for mining and placing the water back in the ground in the alluvium would provide a benefit to the alluvial fill water resource.
- 23.2 What is the harm in enhancing groundwater recharge?

Overarching comment response: This GMP does not address inequities of the past. The GMP starts with current pumping levels and current water rights in good standing and works forward to reduce pumping to sustainable levels.

*Issues or concerns submitted in writing are preserved word-for-word so there may be various grammatical and spelling errors.

  - There is no harm in this and it is actually recommended in 23.1. The GMP just does not allow for these land management activities to receive Shares or Allocations because of the uncertainties in quantifying the water gained and the durability of long-term maintenance of these activities that cannot be guaranteed.
- 26.3 Is citation to the NAC correct?
  - The citation is to NRS, not NAC, and it is correct.
- 26.4 There needs to be a better end to the GMP process than to have everything revert back to the way it is today. We don't want to do this again.
  - Many agree. However, the law as it reads not requires that the GMP outline measures to remove the basin as a CMA. Currently, a GMP is only allowed in a CMA. This is somewhat of a Catch-22 because if the GMP has worked for 20 to 30 years, it is likely the management the users want to remain under. There has been identified a need to pursue legislation (as was done in the 2017 session) that allows a GMP to be in place indefinitely unless and until water rights holders come together and put something else in place.

Jake Tibbitts

From:	Jake Tibbitts
Sent:	Monday, May 07, 2018 9:14 AM
To:	Lynn Conley; Anthony Miller; Billy Norton; Bob Burnham; Carrie Dubray; Craig Benson; D'Mark Mick; Dale Bugenig; Dave & Leora Betschart; Denise Moyle; Dusty Moyle; Fred Etchegaray; Jayme Halpin; Jeff Lommori; Jerry & Trina Machachek; Jerry Sestanovich; Jim Baumann; Jim Gallagher; Jim Ithurralde; JJ. Goicoechea; Ken Conley; Ladd Dubray; Lloyd Morrison; Lynford Miller; Mark Moyle; Martin Etcheverry; Martin Etcheverry; Marty Plaskett; Matthew Morrison; Nick Etcheverry; Paul Etzler; Pete Goicoechea; Robert Beck; Tim & Sandie Halpin; Tim Bailey; Travis Gallagher; schay@live.com; Vickie Buchanan; Wayne Conway; doug@sadlerranch.org; dofr@comcast.net; Patrick Rogers (progers@generalmoly.com); 'chadbliss@mwpower.org'; imrenner@yahoo.com; buckaroodan@gmail.com; rhunt29085@AOL.com; rbjballen2@gmail.com; haystaxwest@gmail.com; matt6560@hotmail.com; bellfarmingco@aol.com; conleyag@gmail.com; huntnboy@gmail.com; lamarmoyle@gmail.com; jsestanovich@gmail.com; saragroth67@gmail.com; 'Ty B. Erickson, M.D. (Ty@TyEricksonMD.com)'; Ari Erickson; ropin4fun2@yahoo.com; 'Jasmine, Jaime - Elko, NV (Jaime.Jasmine@nv.usda.gov)'; kkinsella@generalmoly.com; grothhay@gmail.com; cdubray@frontier.com; bryan562185@gmail.com; Sandy Green; corbinknowles@cableone.net; jeffbulkley@gmail.com; mwpkevin@mwpower.net; terrilynnbrown9@gmail.com; 'Carol Bailey (rangeriders@yahoo.com)'; dvfarmgirl@aol.com; ropp91@gmail.com; randye@mwpower.org; Debbie Lassiter; minonancy@hotmail.com; Joseph Martini; countrymortgage@aol.com; andcgo@gmail.com; minoletti3j@yahoo.com; momma_wood@hotmail.com; ab24602 @gmail.com; rotoone@aol.com; btalbot@generalmoly.com; dbarmranch@mwpower.net; minoletti5@yahoo.com; alainam@gmail.com; Mike Worley; farms4g@yahoo.com
Cc:	'Steve Walker'; Jason King; Kelvin Hickenbottom; Jackie Berg; Jessica Santoyo; mccuing@unce.unr.edu; Adam Sullivan
Subject:	GMP update and save the dates for various meetings
Attachments:	April 2018 DV GMP final draft without appendices.docx; April 2018 DV GMP final draft without appendices.pdf; 2018 GMP petition process and schedule.docx

All:

At the GMP meeting last week, the group finalized the last few edits of the draft GMP. This included the Executive Summary and Contents sections. Attached is the GMP version that was considered by the group to be the final DRAFT. It is attached in both Word and PDF. It is still a draft and may have various needed grammatical, formatting, or other changes take place. But the group did determine that there are no anticipated changes to the substance of the Plan. This copy does not have all of the appendices populated. That will be complete soon and a full version of the GMP with these appendices will be provided to everybody to download through a link. With all of the appendices in place, the document becomes too large to email.

The group also outlined the schedule and petition process that will be taking place over the next 3 to 4 months. This process is attached as well. In this document, it outlines various upcoming meetings to keep folks informed and to gather signatures on the petition.

<u>Please save the following dates in your calendars</u>:

- Tuesday, June 5 at 6 pm at Opera House

    - Roll out GMP and answer questions
    - Gather petitions
- Tuesday, June 26 at 6 pm at Opera House
    - Tally signatures
    - Verify signatures as needed
- Tuesday, July 24 at 6 pm at Opera House
    - Tally signatures
    - Verify signatures as needed
    - Determine if a majority of holders have signed and process to send petition and GMP to State Engineer

Jake Tibbitts
Natural Resources Manager
Eureka County, NV
PO Box 682
Eureka, NV 89316

Phone: 775-237-6010

GMP Petition Process and Schedule - 2018

1. GMP packet sent out by May 23; send certified with return receipt
    a. Bound GMP with all appendices
    b. Petition
    c. Cover letter
        i. Requesting return by June 22 (30 days)
        ii. Noting evening meeting on June 5 at 6:00 pm at Opera House
2. June 5 meeting at Opera House at 6 pm
    a. Roll out GMP and answer questions
        i. Clarify meeting is not to work on the GMP
    b. Gather petitions
3. Full group evening meeting on June 26 at 6 pm at Opera House
    a. Tally signatures
    b. Verify signatures/ownership as needed
4. Advisory Board and individual gathering of additional petitions
    a. June 26 through July 24
5. Full group meeting July 24 at 6 pm
    a. Tally signatures
    b. Verify signatures/ownership as needed
    c. Determine if a majority of holders have signed and process to send petition and GMP to State Engineer
6. If majority met – submit petitions and GMP to State Engineer by August 1 requesting approval
    a. Cover letter
        i. How majority was met in multiple ways
        ii. Document the process that was followed
7. Possible State Engineer hearing in August in Eureka
8. Possible GMP approval by September

Appendix D – Hydrologic Setting of Diamond Valley

Adapted from Eureka County Water Resources Master Plan (2016)

Physical Characteristics and General Hydrology of the Area

The Diamond Valley Hydrographic Area (HA 061) is located in southeastern Eureka County (Figure 1). Diamond Valley encompasses 752 square miles, of which 700 miles (93 percent) are within Eureka County. The remaining 52 square miles, an area known as Garcia Flat, are within the southwestern-most portion of Elko County.

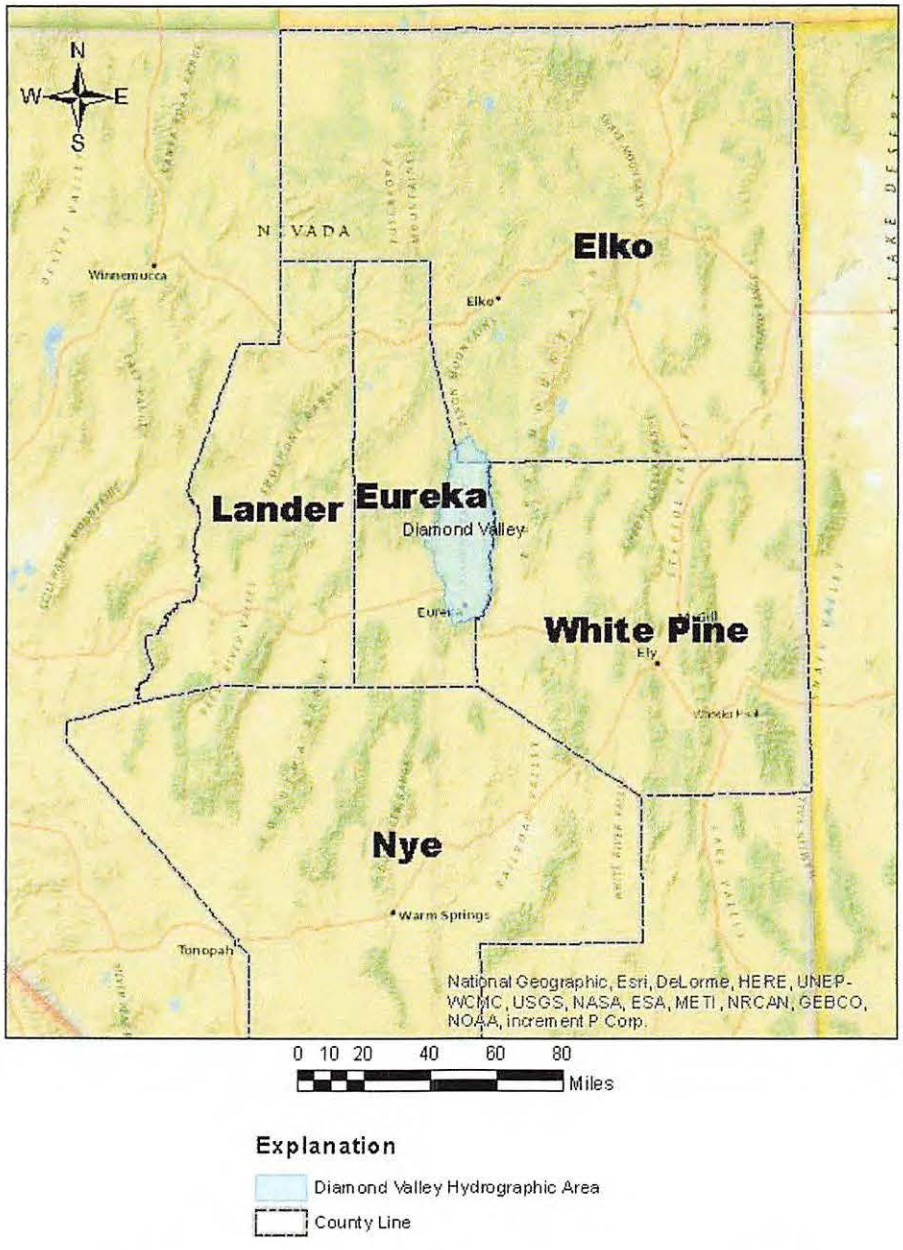


Figure 1. Diamond Valley Hydrographic Area Location Map

Diamond Valley is a closed basin. That is, none of the groundwater recharge originating as infiltration of precipitation falling within the basin, surface water originating in the basin and inter-basin groundwater flow into the basin from adjacent basins flows out of the basin. As stated in previous sections, Diamond Valley is the terminus of the Diamond Valley Flow System, which includes Monitor Valley (North and South Parts), Kobeh Valley, Antelope Valley and Stevens Basin. Available data suggest inter-basin groundwater flow into Diamond Valley through bedrock from Kobeh Valley and Garden Valley (a portion of the Pine Valley HA) as well as a small amount of groundwater flow from Kobeh Valley through alluvial deposits at Devils Gate in the southwest corner of the basin. In wet years Slough Creek conveys water from Kobeh Valley into the basin providing additional groundwater recharge. But, as is the case with groundwater, none of this surface water flows out of the basin. Prior to development, virtually all the groundwater entering the basin was discharged in the northern half of the basin by phreatophytes that surrounded the extensive playa located there, the springs located on the margins of the playa, and bare soil evaporation within the playa itself. Since the onset of large-scale groundwater resource utilization in the basin that began in the 1960s, the natural flow of groundwater to the playa has been altered and the majority of groundwater discharge is by irrigation wells. The discharge of groundwater by springs around the margin of the playa has been significantly reduced and there is evidence that the discharge from phreatophytes has also declined.

Perennial streams are present in the mountains, but there is no perennial stream flow below the range front. The principal perennial streams include Eureka Creek, Simpson (Italian) Creek, Torre Creek, Hildebrand Creek, Cottonwood Creek, Minoletti Creek, Pedrioli Creek, and Green Canyon, all of which are situated in the Diamond Range which borders the valley on the east.

Wells

The State well log database provides records for approximately 740 wells in the basin (see Figure 2). Of these, 53 have reportedly been plugged and abandoned, 94 records represent replacement wells, 19 represent wells that have been deepened, and 74 were drilled as monitoring wells such that there may be approximately 500 water-supply wells in the basin. The well log database shows 437 wells drilled for irrigation purposes, 117 for domestic supply, 70 for monitoring, 21 for stock water. It also shows 24 for test or exploration purposes, 14 for other purposes, and five were unused. Records show 12 wells drilled as sources of public water supply, but this number includes exploration wells, wells that have been plugged and wells currently used for non-potable supply.

Well depths vary from 50 feet or less to more than 1,700 feet (Figure 3). The shallowest wells were mostly used to monitor groundwater near leaking underground storage tank (LUST) sites in the Town of Eureka. The deeper wells primarily were drilled in the mountain blocks as sources of mining water supply, mine dewatering, or monitoring) primarily for the Ruby Hill mine northwest of the Town of Eureka or for monitoring wells at the Mount Hope Project northwest of the Town Many wells drilled for the mining industry are over 1,000 feet deep with the deepest wells more than 3,000 feet deep.

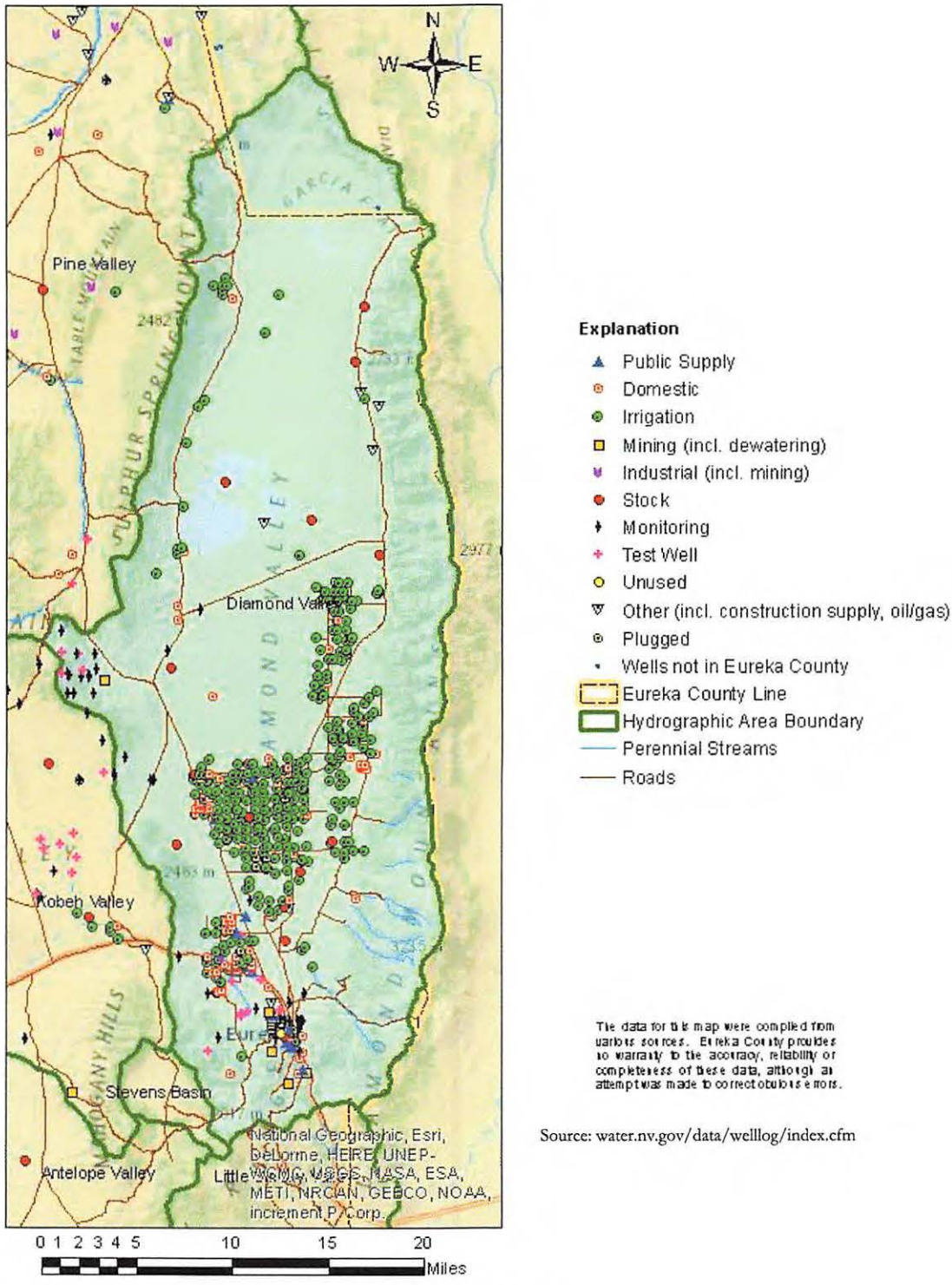


Figure 2. Wells in the Diamond Valley Hydrographic Area.

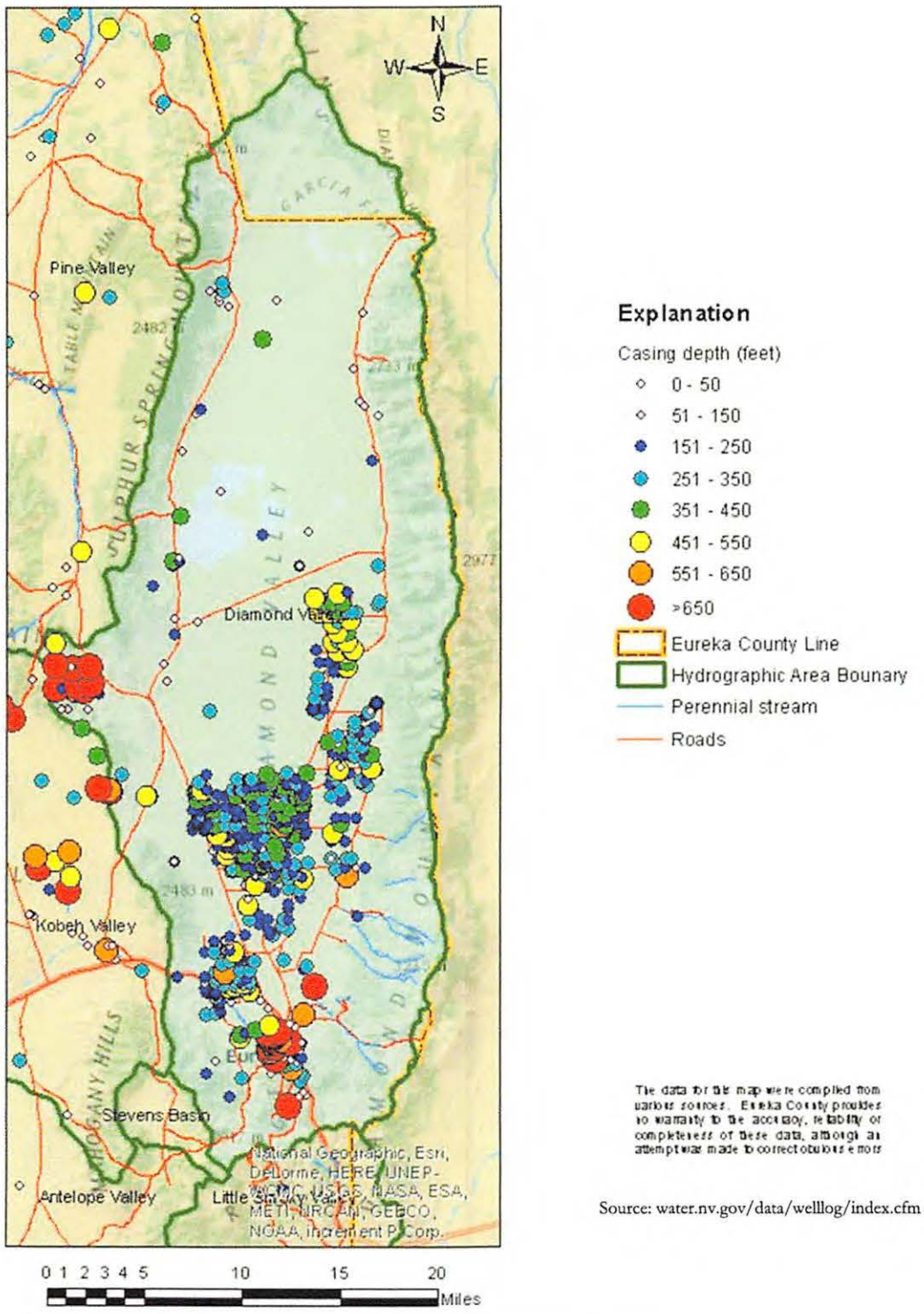


Figure 3. Depths of Wells in the Diamond Valley Hydrographic Area.

In the early stages of groundwater resource utilization, irrigation supplies could be developed from wells with depths of about 150 to 250 feet. As time passed and as water levels in the aquifer have declined,

well depths have generally increased and it is not uncommon for newer irrigation wells to be drilled and completed to depths greater than 400 feet. Information from the deeper wells suggests that the sediments become more cemented with depth and that below this depth the sediments do not yield large quantities of water, such that the bottom of the productive part of the aquifer may be situated at about 400 feet.

Perennial Yield and Groundwater Rights

Recharge to Diamond Valley arising from infiltration of precipitation within the basin was originally estimated at 22,000 acre-feet per year (Eakin, 1962). A small amount of underflow from Kobeh Valley through the alluvium was also acknowledged. The recharge estimate was later increased to 30,000 af/yr by incorporating an estimate of inter-basin flow from the Garden Valley area of Pine Valley (Harrill, 1968) to achieve a better balance between recharge and discharge.

Recent analysis of the Diamond Valley aquifer undertaken in support of the Mount Hope Project suggests perhaps as much as 1,000 af/yr inter-basin flow from Kobeh Valley through the bedrock in the mountains north of Whistler Peak. The Nevada State Engineer (NSE) currently assumes groundwater recharge to the basin from all sources is 30,000 af/yr. United States Geological Survey recently completed a multi-year study of the Diamond Valley Flow System (Berger et al. 2016) and estimated pre-development groundwater recharge to be 35,000 af/yr. USGS estimated that in 2011-2012, 29,000 af/yr of groundwater was being discharged through evaportranspiration (ET) by phreatophytes.

Committed groundwater rights (not including vested claims) in the basin total about 131,000 af/yr. These are summarized in Table 1a and the PODs in the basin are shown in Figure 4. Due to the density of PODs in southern Diamond Valley near the Town of Eureka, that area is expanded in Figure 5. Comparison of the total committed rights to the estimated perennial yield shows the basin to be over appropriated by a factor about 3.5 (approximately 4.5 times the estimated perennial yield). A significant amount of these water rights are currently not being exercised, such that approximately 76,000 acre-feet per year are being pumped at present. The vast majority (96%) of the water rights are for irrigation purposes. Because water rights are not required for individual domestic wells, Table 1a does not incorporate groundwater pumped from approximately 120 domestic wells reportedly constructed in the basin.

Table 1a
Committed Groundwater Rights in the Diamond Valley Hydrographic Area (HA 153)

Manner of Use	Committed Groundwater Rights (af/yr)
Commercial	3.79
Domestic	33.60
Irrigation (including DLE)	125,284.24
Mining and Milling	2148.45
Municipal	1592.06
Quasi-municipal	570.16
Stockwater	904.19
Total	130,536.49
Source: http://water.nv.gov, accessed 5/4/2018	

Groundwater Use

Groundwater in the basin is used to provide public water supply, domestic supply to residences not supplied by public water systems, irrigation, mining and milling supplies, mine dewatering, stock watering, and commercial use. The overwhelming majority of groundwater pumped in Diamond Valley is used for irrigation.

Public Water System Use

There are currently three public water systems in Diamond Valley. These include the two community water systems operated by the Eureka County Public Works Department and the water system at the Ruby Hill Mine operated by Barrick. The Department operates the Eureka Town Water System and Devils Gate General Improvement District (GID) in Diamond Valley. Both of these entities utilize wells in southern Diamond Valley. The Town of Eureka also derives water from developed springs, after a nearly

25-year hiatus that started in the late 1980s. These spring sources were re-activated after significant improvements in 2012 and 2013 and re-integrated into the Town's supply in 2014.

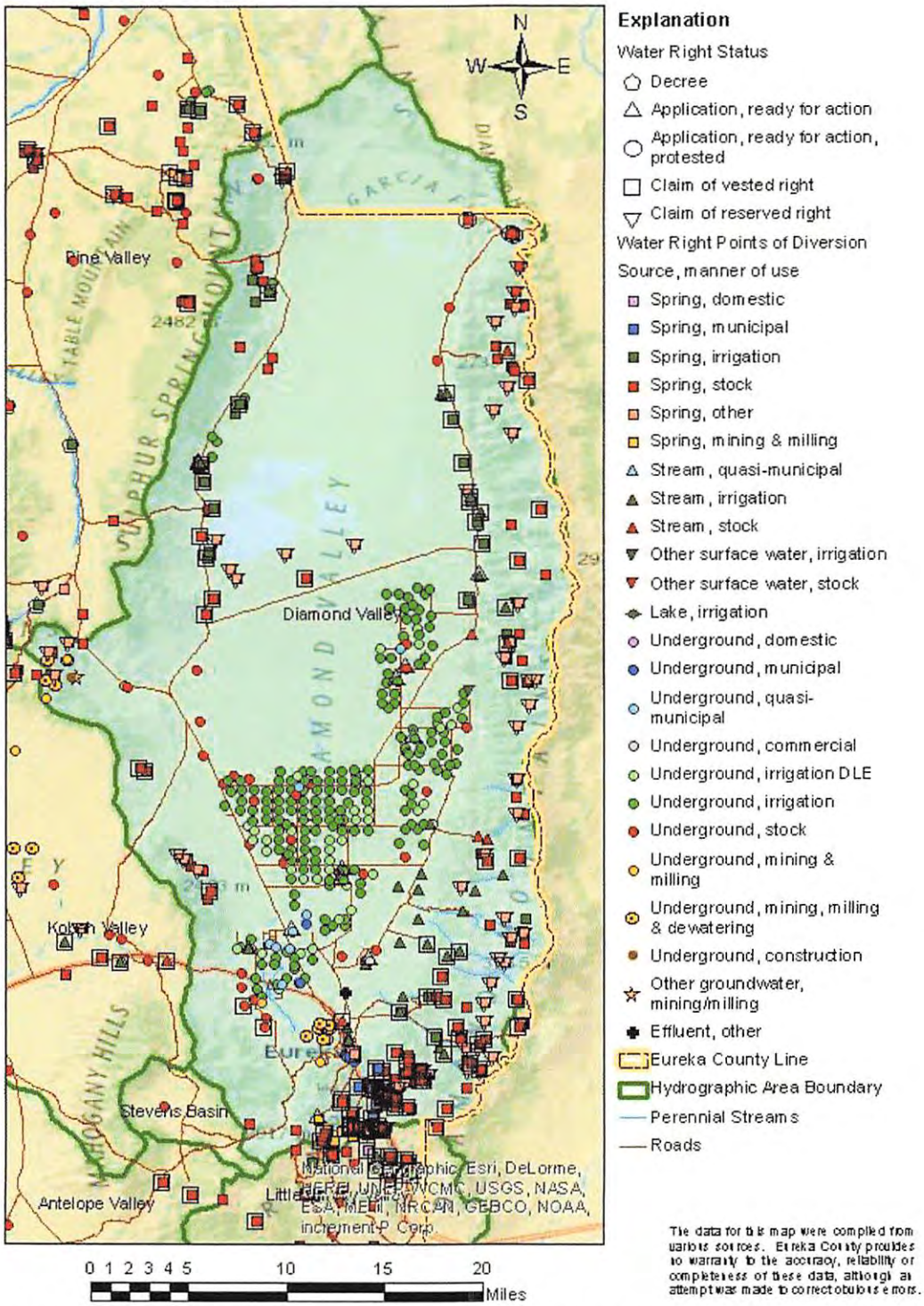


Figure 4. Points of Diversion for Water Rights in the Diamond Valley Hydrographic Area.

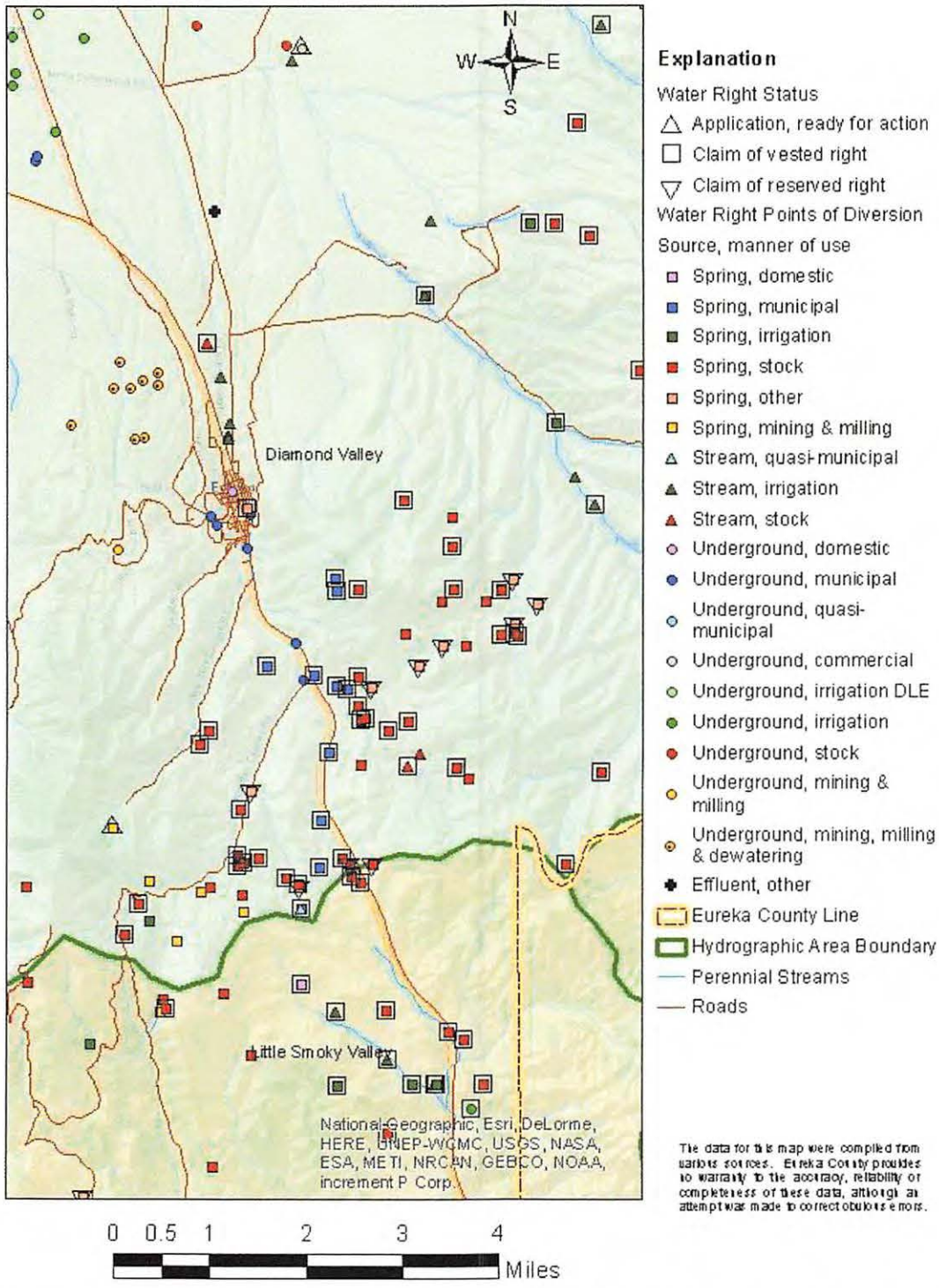


Figure 5. Points of Diversion for Water Rights near the Town of Eureka in the Diamond Valley Hydrographic Area.

Town of Eureka System

Until 1989, the water supply to the Town of Eureka was derived from 10 springs in the mountains south of the Town. Use of the spring sources was discontinued at that time due to source reliability issues and problems maintaining the aging spring diversions and transmission line to the Town. By 2013, the 10 spring sources were completely reconstructed and a new transmission pipe has been installed to convey the water to a chlorination facility, thence to the Town. In March 2014, the springs were re-integrated into the Town's water supply. Although these spring sources are regulated by the NSE and BSDW as surface water, they in fact capture groundwater discharge in the mountains. The springs, which in aggregate are permitted to divert up to approximately 80 af/yr or approximately 45% of the current average demand of the Town, are an invaluable source of supply derived from bedrock sources thought to be insulated from the water level declines observed in the alluvial aquifer and which may affect future viability of the Town's and the GID's wells. Another benefit of the spring sources is the water flows to the Town under gravity. In comparison, water from the Town's water supply wells must be piped more than four miles and lifted a total of approximately 800 feet to Town's storage tanks at significant cost.

As stated previously, the Town installed wells in the late 1980s to address issues with the spring source. It pumps groundwater from two wells northwest of the intersection of US Highway 50 and State Route 278 at a location approximately three miles northwest of Eureka. Diamond Valley Well No. 1 is equipped to pump 900 gpm. Diamond Valley Well No. 2, located approximately 100 feet from Well No. 1, is equipped to pump 750 gpm, and provides redundancy to the system. The average daily demand for the Town of Eureka is 160,000 gpd and the maximum daily demand is 480,000 gpd. In comparison, the capacity of Well No. 1 is 1,296,000 gpd. In 2009, the system served 276 customers and the annual use at that time was approximately 179 acre-feet.

Declining water levels in the alluvial aquifer exploited by the Town's wells represent a threat to the Town's water supply. Water level trends are discussed in more detail in a subsequent section (See Water Level Trends, following Figure 4.28).

Devil's Gate GID System

The Devil's Gate GID operated by Eureka County Public Works Department is located approximately 4.5 miles northwest of the Town of Eureka. It includes two districts – District 1 and District 2. District 1 straddles US Highway 50 west of the intersection with State Highway 278. District 2 is located about one mile north of District 1. There are currently 17 users in District 1 and 41 users in District 2. The water supply is provided by two wells which are rated to supply a total of approximately 120 gpm; approximately 70 gpm from the "Frontier" Well and approximately 50 gpm from the "Gourley" well. With the largest well out of service, the system can accommodate up to 125 users although the GID holds sufficient existing water rights allow for approximately 118 users, assuming two af/yr per residence. The GID owns a third well that is rated to produce 240 gpm, but elevated levels of arsenic in the groundwater pumped from it make it unsuitable for use without treating the water to remove arsenic. It currently provides a source of construction water supply. In 2009, approximately 6.4 acre-feet were consumed in District 1 and approximately 17.6 acre-feet were pumped from District 2, for a total of 24 acre-feet.

Declining water levels in the alluvial aquifer of Diamond Valley represent a threat to the GID's water supply. From 2008 to 2013, water levels declined 21 feet in the Frontier Well or at a rate of approximately

4.2 feet/year. In the Gourley Well, water levels have declined 1.6 ft/year over the same time period. Water level trends are discussed in more detail in a subsequent section.

Other Groundwater Usage by Eureka County

The County also operates a well at the Eureka County Airport and several small-yield wells within the Town that are used to irrigate turf at parks. The recreational uses of the water fall under the general heading of municipal use, but these are independent of the Town and Devil's Gate GID public supplies. The water supply at the airport is not regulated as a public supply because it serves too few individuals for the threshold of regulation to apply.

Ruby Hill Mine Potable Water Supply

The Ruby Hill Mine water operates a non-transient, non-community supply to serve the needs of its employees. The supply is provided by a dedicated potable-water-supply well at the mine site. Annual use varies with the level of mining activity, but during 2013, approximately four acre-feet were consumed. Mining operations have ceased for the foreseeable future.

Domestic Water Use

The State well log database lists driller's reports for 117 domestic wells serving single-family residences in Diamond Valley. There are also an undetermined number of irrigation wells that may provide domestic water supply. In Nevada, each domestic well owner is allowed to pump two (2.0) af/yr, but, domestic well consumption is at best loosely regulated and the wells are unmetered. For purposes here, it is assumed that each domestic well user pumps all the groundwater allowed, and that total use by individual domestic well users is less than 250 af/yr or less than 0.1 per cent of the groundwater currently pumped.

Irrigation Water Use

Very little agricultural land in Diamond Valley was irrigated using groundwater prior to 1960 (Figure 6). After 1960, irrigated acreage and estimated irrigation water pumpage increased in a nearly linear fashion until 1984, followed by a decrease of about 24 percent through 1992. Irrigated acreage then remained relatively constant for about eight years. Since 2002/2004, irrigated acreage has resumed a roughly linear trend along with estimated irrigation groundwater pumping, albeit at a much slower pace prior to 1984.

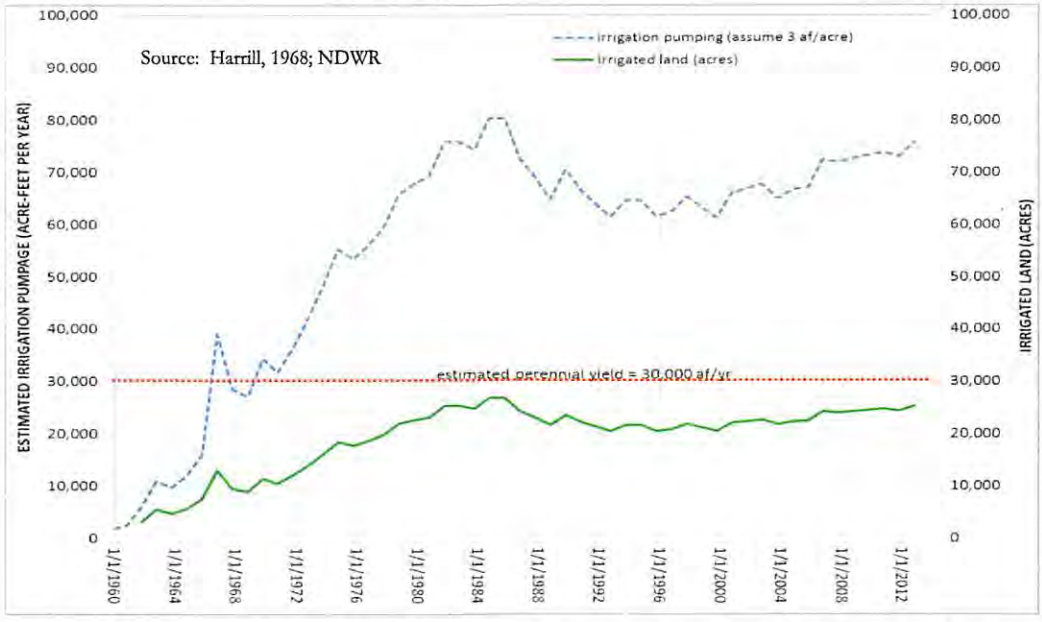


Figure 6. Irrigated Acreage and Estimated Irrigation Pumpage for Diamond Valley.

With few exceptions, most irrigation occurs in the southern half of the basin, with limited irrigation west of the playa in the northern half of the basin. Nearly all irrigation in the basin is accomplished through the use of center-pivot sprinklers. At present, there are approximately 200 quarter-section fields being irrigated, mostly through center pivots in use, plus a handful of wheel lines (Figure 7). Flood irrigation is still practiced, but on a very limited basis. For the most part, the corners of the fields utilizing center pivots are not irrigated. However, a few farmers do irrigate their corners either with wheel lines or by using end guns on their pivots.

The NSE (Nevada State Engineer) ordered irrigation wells in Diamond Valley to be equipped with totalizing meters in 1982, but this has not been enforced and limited meter data are available. Recently, the NSE issued a new meter order and all irrigation wells are now required to report monthly pumping data starting in 2018. Since the amount of groundwater pumped each year for irrigation in Diamond Valley was typically not measured, it is instead *estimated* on the basis of the observed acreage of land on which water is applied. These estimates are tabulated in annual Crop Inventories prepared by the NSE's staff of a small number of the more than 200 hydrographic areas of the state. The average annual duty (the amount which the NSE permits applicants to pump) for irrigation water rights in Diamond Valley is approximately four feet of water per acre. However, because the net irrigation requirement for alfalfa, the principal crop grown in Diamond Valley, is 2.5 feet of water per year per acre, irrigators are likely applying 3.0 feet of water per year per acre or less. Limited meter data confirm

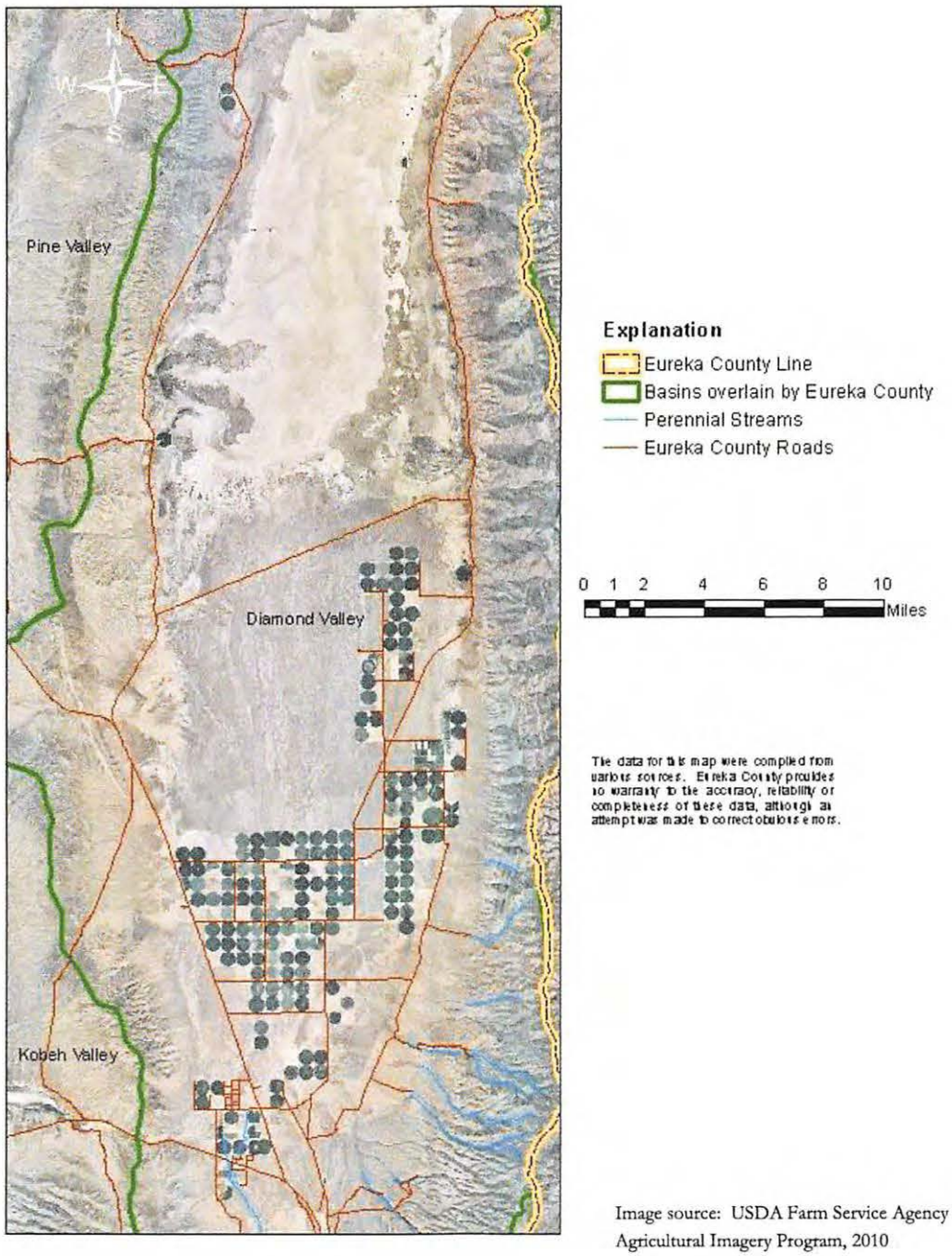


Figure 7. Aerial Image of Irrigated Land in Diamond Valley.

the amount of water pumped is closer to 3.0 feet or less rather than 4.0 feet. Therefore, for purposes of discussion in the GMP irrigation pumpage in Diamond Valley is assumed to be 3.0 af/acre/year, or a total of approximately 76,000 acre-feet per year in 2012. Of this amount, an undetermined small portion almost certainly infiltrates the soil to become secondary recharge that can serve to inhibit salt build-up in the soil.

Regardless of the specific amount of water pumped, the available data suggest that irrigation water usage by itself is more than double the estimated perennial yield of the basin and is unsustainable. This over-pumping of the basin is causing a decline in water levels in the range of about one to three feet per year. A discussion of this trend is provided in a subsequent section.

Mine Water Use

At present, water use by the mining industry in Diamond Valley is limited to Ruby Hill Mine located on the outskirts of the Town of Eureka. The principal source of supply is derived from wells deriving groundwater from wells completed in bedrock and which serve to dewater the pit. The mine's water rights allow for pumping up to 1,000 acre-feet per year. The pumping rate varies, but has averaged between about 600 to 800 af/yr. Of this amount, approximately half is currently infiltrated into the alluvial aquifer via rapid infiltration basins (RIBs) located west of the mine after the water has been treated to reduce the concentration of arsenic. The remainder is consumed in the milling process and incidental uses such as dust suppression. Mine usage is currently less than one percent of the total amount of water rights permitted in the basin. Operations at Ruby Hill have been suspended for the foreseeable future, but mine dewatering and some limited water use will continue for the foreseeable future.

Other potential mining use includes the Mount Hope Project located approximately 28 miles northwest of Eureka. A portion of the proposed pit is situated in Eureka County and some of the groundwater proposed to be pumped to dewater the pit is expected to originate from the Diamond Valley HA. This water, potentially amounting to only a few hundred acre-feet per year, would be consumed by ancillary uses at the mine, assuming, of course the project ever becomes operational. Water not consumed within the Diamond Valley portion of the mine area would need to be infiltrated or otherwise returned to the Diamond Valley aquifer(s).

Stockwater Use

Ranchers in Diamond Valley hold rights to pump approximately 900 af/year to provide a source of water supply to livestock. The NSE does not closely monitor the use of water for this purpose, so the amount of water currently consumed for this purpose is unknown, but is likely much less than 900 af/yr. However, even at full amounts, stockwater rights amount to less than one percent of the total water rights in the basin, such that this use is miniscule compared to other uses.

Commercial Use

Water rights for the commercial use of groundwater total approximately three af/yr have been appropriated for use at church facilities.

Water Level Trends

Water level data for the alluvial aquifer in Diamond Valley date back to the start of large scale groundwater exploitation in the 1960s. The data are available from the Nevada Division of Water Resources and the United States Geological Survey and, for the most part, represent water levels taken in the spring of the year prior to the on-set of irrigation. The data document how water levels have declined since the 1960s and that a cone of depression has developed over most of southern Diamond Valley, with more than 100 feet of cumulative drawdown near the centroid of the area of irrigation wells (Figure 8). Currently, water levels are declining at a rate of about one to three feet per year.

Figure 9 illustrates several hydrographs representative of water levels in southern-most, central and northern-most parts of the basin-fill aquifer in the south half of Diamond Valley. Some prominent points regarding the hydrographs include:

- Depth to water in the aquifer was initially greater at the southern end of the valley, indicative of the slope of the land surface and the general direction of groundwater flow from south to north in the southern half of the basin.
- The pattern of water level decline is similar over a large area in the center of the south half of the valley (wells N20 E53 04DDB2, N21 E53 11CDDD, and N22 E54 33BBDD).
- Water levels at the north end of the irrigated land (represented by well N23 E54 30DDD2) have declined less compared to the central part of the basin in large part because of distance from the center of ag pumping. A similarly lesser rate of decline is observed at the south end of the basin beginning in 1997 (well N20 E53 32BDCC1). The lesser rate of decline is also due in large part to the distance from the center of agricultural pumping.
- The rate of water-level decline from the mid-1970s to early 1980s was followed by a lesser rate of decline through the mid-1990s as a result of a decrease in irrigated acreage from 1984 to 1992 (see Figure 9).

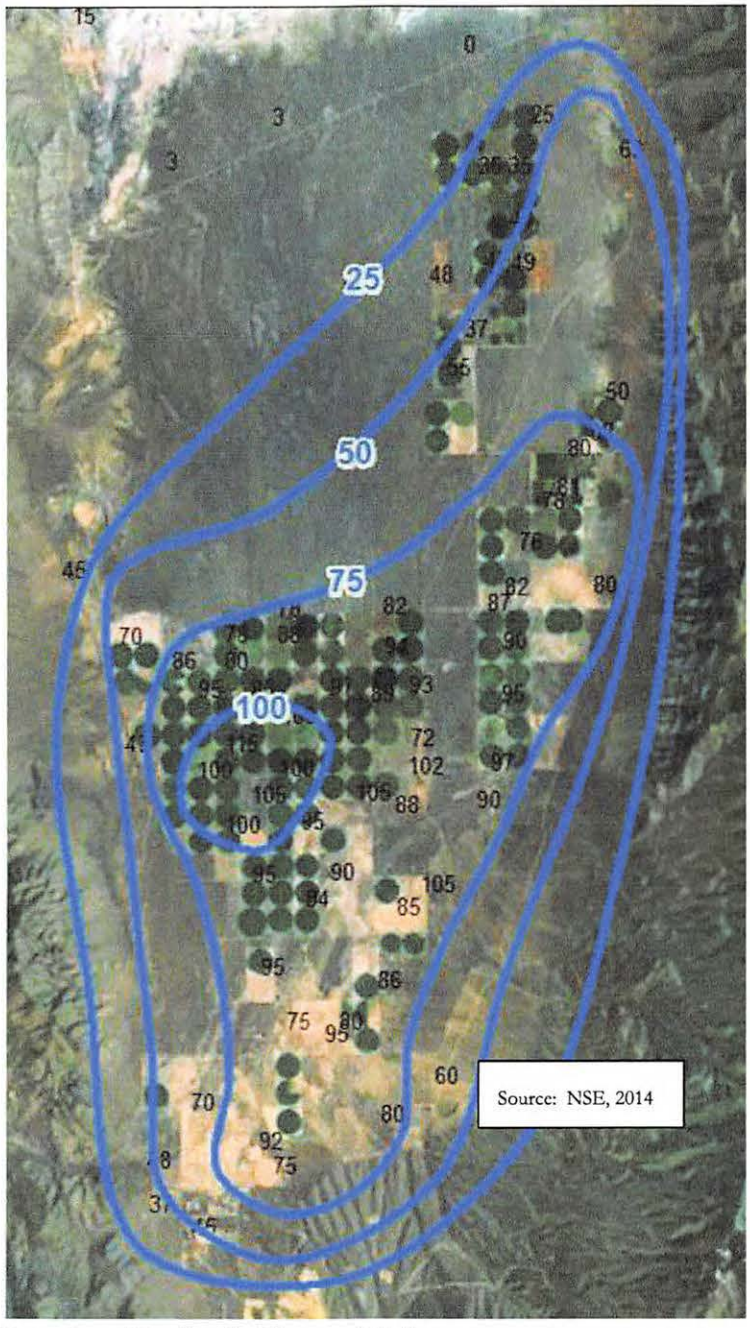


Figure 8. Map of Water Level Decline in Diamond Valley.

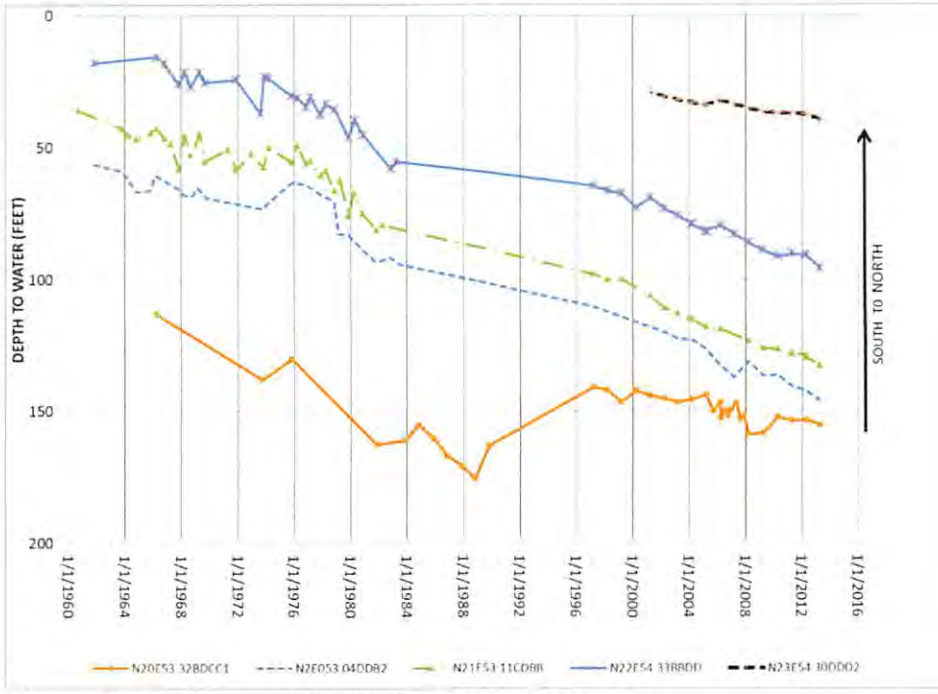


Figure 9. Hydrographs of Representative Wells in Diamond Valley.

In addition to the annual water level measurements obtained by the NSE and the USGS, Eureka County funds a network of 12 monitoring wells equipped with water-level data recorders (data loggers). Of these, six are operated by the County Natural Resources Department and six are operated by the non-profit Diamond Valley Natural Resources Protection and Conservation Association (DNRPCA) and funded by Eureka County. Water levels from the County's monitoring wells have been logged since the spring of 2011 (Figure 10) and data have been collected from the DNRPCA monitoring wells since spring 2013 (Figure 11). Water level measurements are logged daily in each of the wells with the exception of the well located in Section 36, Township 24 North, Range 53 East (Figure 10). This well provides a source of stock water supply and measurements have been collected hourly to help show the effect of the pump cycling on and off. From Figure 10, it is evident that the operation of the well has not obscured the water level trend.

The data from the County's and DNRPCA's monitoring wells help to define the annual variation in water levels in the aquifer resulting from irrigation pumping. From the data, it can be seen that water levels vary seasonally from between about five and 40 feet, depending on how close the monitoring well is to a pumped well or whether or not the monitoring well is completed to the same depth as a pumped well. As discussed previously, the public water supply wells that supply the Town of Eureka and the Devil's Gate GID draw groundwater from the alluvial deposits in Diamond Valley.

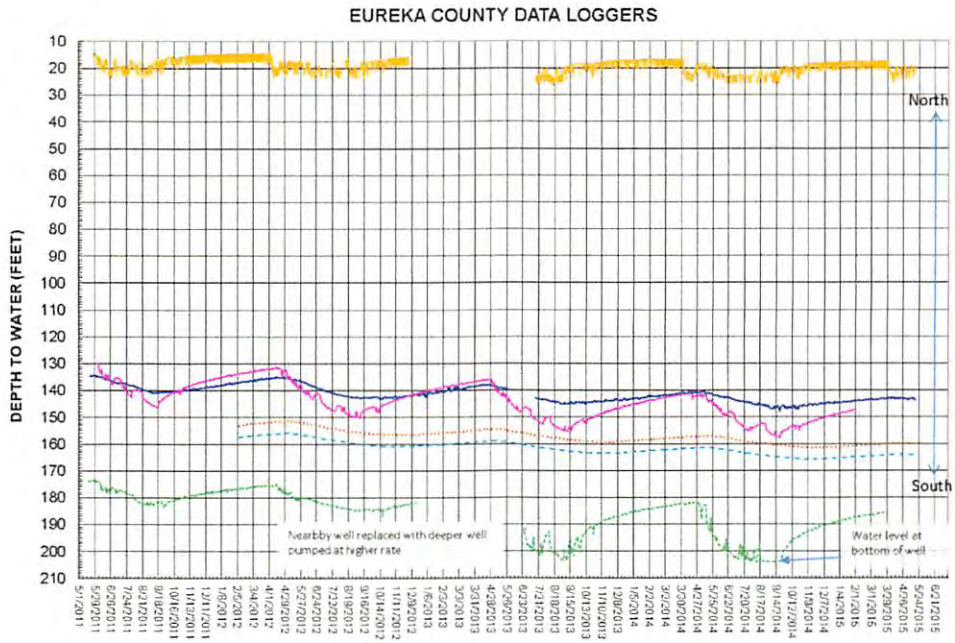


Figure 10. Eureka County Monitoring Network Hydrographs.

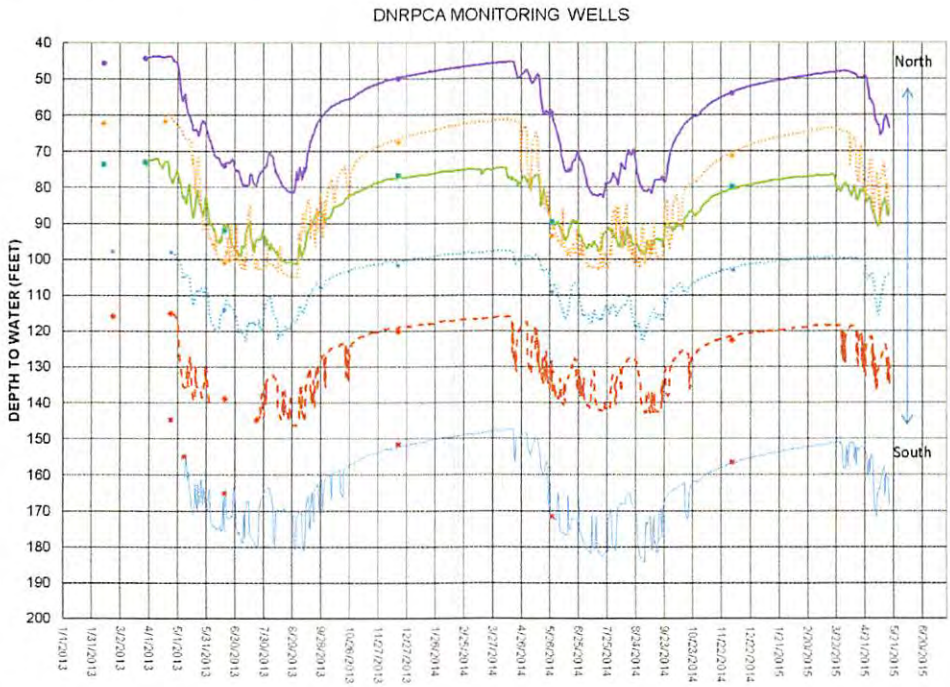


Figure 11. Eureka County / DNRPCA Monitoring Network Hydrographs.

Surface Water Rights and Use

Water rights have been appropriated from several streams and numerous springs in Diamond Valley. All the perennial streams are located in the Diamond Range east of the valley and the streams are perennial only in the mountain block above the range front. The streams become intermittent or ephemeral on the alluvial fans below the range front. The principal streams include Eureka Creek, Simpson (Italian) Creek, Torre Creek, Hildebrand Creek, Cottonwood Creek, Minoletti Creek, Pedrioli Creek, and Green Canyon. Additionally, during wet years or after periods of intense rainfall, Slough Creek flows into Diamond Valley from Kobeh Valley through Devil's Gate. Average annual runoff from the Diamond Range has been estimated at 5,000 af/yr (Harrill, 1968). The estimated annual runoff from the rest of the valley margins is estimated at 800 af/yr (*Id.*)

Many of the springs on which claims have been filed are located in the mountains, but a number are located on the valley floor or issue from the alluvium near the range front. Big Shipley Hot Springs west of the playa and Diamond Springs (a.k.a. Thompson Springs) east of the playa, both of which are located below the range front, historically flowed at significant rates. Groundwater exploitation in the basin has caused the discharge from many springs to decline or cease to flow altogether. The discharge from Big Shipley Hot Springs has declined and Thompson Spring has ceased to flow. The NSE has recently granted "mitigation water rights" to offset the loss of these springs flows resulting from groundwater exploitation in the basin. These granted mitigation rights and associated historic flow rates are in various levels of dispute and litigation. The effect of mitigation rights is to increase the amount of groundwater presently pumped from the basin.

On October 8, 1982 the NSE initiated adjudication of all claims of rights to surface water and groundwater in Diamond Valley (NSE Order #800), but this effort failed to progress and the adjudication process languished. After a 30-yeqar hiatus the NSE resuscitated the process on August 21, 2015 (NSE Order #1263). Subsequently, on October 16, 2015, the NSE issued Order # 1266 requiring all claimants to file Proofs of Appropriation on or before May 31, 2016. The NSE is currently progressing on this adjudication based on claims filed.

Groundwater Quality

Concentrations of major ions (calcium, magnesium, sodium, potassium, bicarbonate, sulfate, and chloride) and total dissolved solids (TDS) in groundwater are primarily derived from dissolution of minerals in rocks and soil in contact with the water. In general, concentrations of solutes (substances dissolved in water) increase with the amount of time water has been in contact with rock and soil and, therefore, increases along the path the water flows from recharge areas to discharge areas. Therefore, concentration is typically less in recharge areas and increases along the flow path toward discharge areas. Evapotranspiration will increase concentrations of most major ions, but chemical reactions can remove selected solutes by mineral precipitation and ion exchange. Groundwater quality is frequently degraded near ore deposits where reducing conditions are often created by the presence of sulfides in the ore resulting in increased concentrations of arsenic, iron, manganese, sulfate and TDS.

Water Quality in Diamond Valley Hydrographic Basin

Water quality data for Eureka County are available from numerous sources. These include but are not limited to: the records of the Eureka County Public Works Department; semi-annual monitoring reports, Reconnaissance Series Reports prepared for the Nevada Department of Conservation and Natural Resources, the National Water Information System (NWIS) of the United States Geological Survey; NEPA documents prepared for mining projects such as the Mount Hope Project and the records of the Nevada State Laboratory. To provide a sense of the variability of water quality throughout Diamond Valley the concentration of total dissolved solids and arsenic are depicted in Figures 5.2 and 5.3. As one can see the current groundwater quality where the majority of the agricultural pumping occurs meets current drinking water standards.

Total Dissolved Solids in Diamond Valley

From Figure 12 it is apparent TDS is highly variable in the aquifers throughout the hydrographic basin, ranging from less than 250 mg/L, which generally indicates very good water quality, to more than 1,000 mg/L. For the most part TDS is less than the recommended SMCL of 500 mg/L and well below the maximum SMCL of 1,000 mg/L. There are some notable exceptions, however.

Elevated TDS is found south and northeast of the playa in northern Diamond Valley. This high TDS groundwater is primarily derived from shallow monitoring wells along the margin of the playa near the groundwater discharge area and reflects the effect of evaporation and transpiration which concentrates dissolved solids. As discussed in previous sections, the presence of high TDS water at the playa is notable because large-scale pumping in Diamond Valley has created an extensive cone of depression in southern Diamond Valley. The result is a reversal of the natural hydraulic gradient such that the high TDS water, normally found beneath the playa can now flow in an opposite direction. The long-term consequence is migration of high TDS water toward the nearest irrigation wells, albeit at a very slow rate. Somewhat elevated TDS is also found in southern Diamond Valley along a north-south trend that roughly follows one of the floodways from Devil's Gate to the playa, but the reason for this is not evident.

Elevated TDS also occurs in groundwater derived from the mountain block west of Diamond Valley from the vicinity of Mount Hope (where Pine Valley, Diamond Valley and Kobeh Valley come together) south toward Whistler Mountain.

Concentration of Dissolved Arsenic

Figure 13 shows variability of the concentration of arsenic in aquifer in Diamond Valley. Comparison of Figure 12 and 13 shows that data for arsenic in groundwater are less widely distributed than for TDS such that there are limited data or no readily available data in some basins. Note that a lack of data does not preclude water from exceeding the MCL for arsenic, merely that no data are available.

Elevated arsenic concentrations are reported for a few wells in southern Diamond Valley. These include wells at Barrick's Ruby Hill Mine which derive groundwater from bedrock and a County-owned well located north of Highway 50 and west of State Route 278 that derives water from alluvial deposits. For the remainder of Diamond Valley, data suggest relatively low concentrations of arsenic may be the norm.

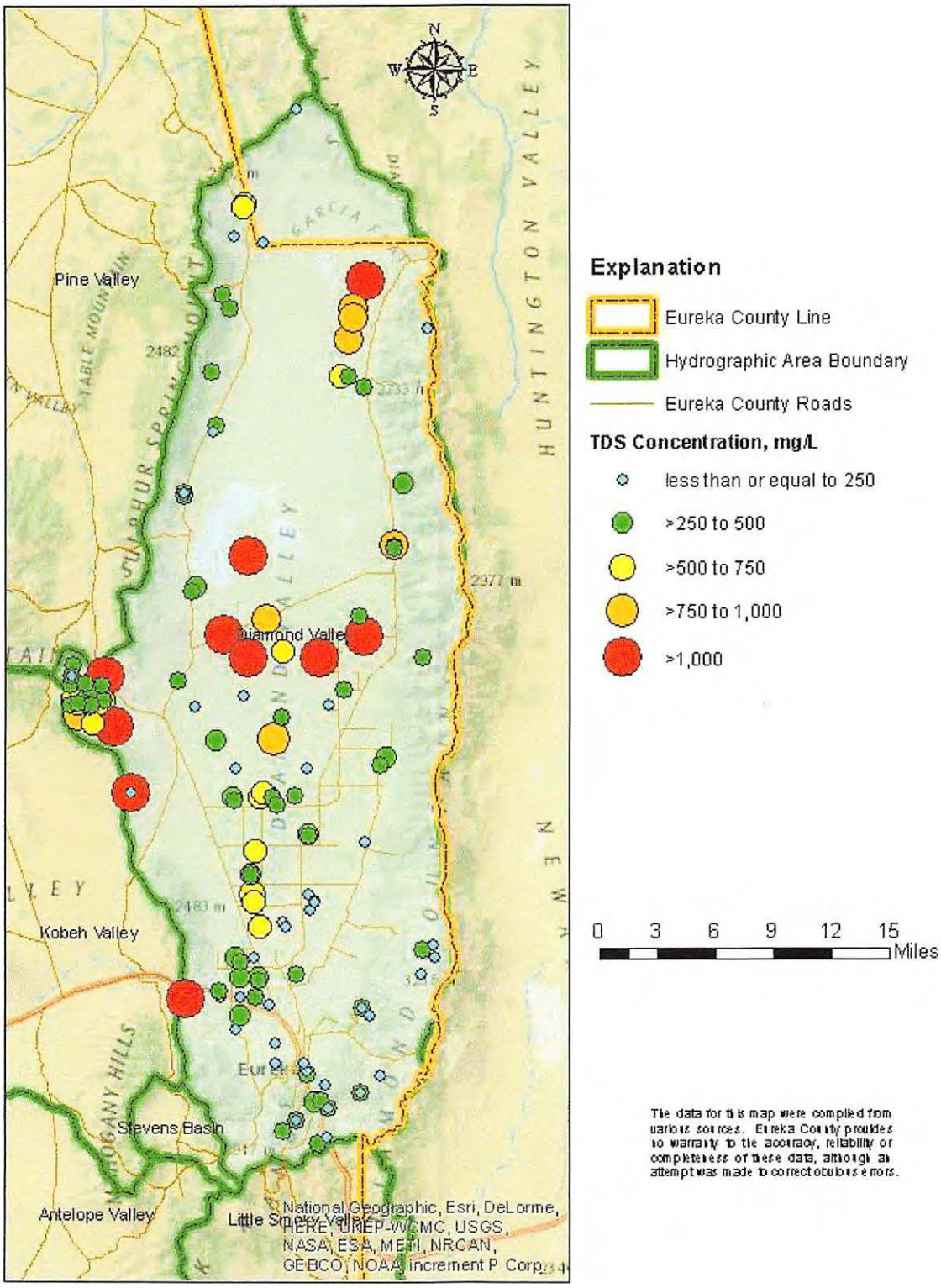


Figure 12. Concentration of Total Dissolved Solids, TDS, in Diamond Valley.

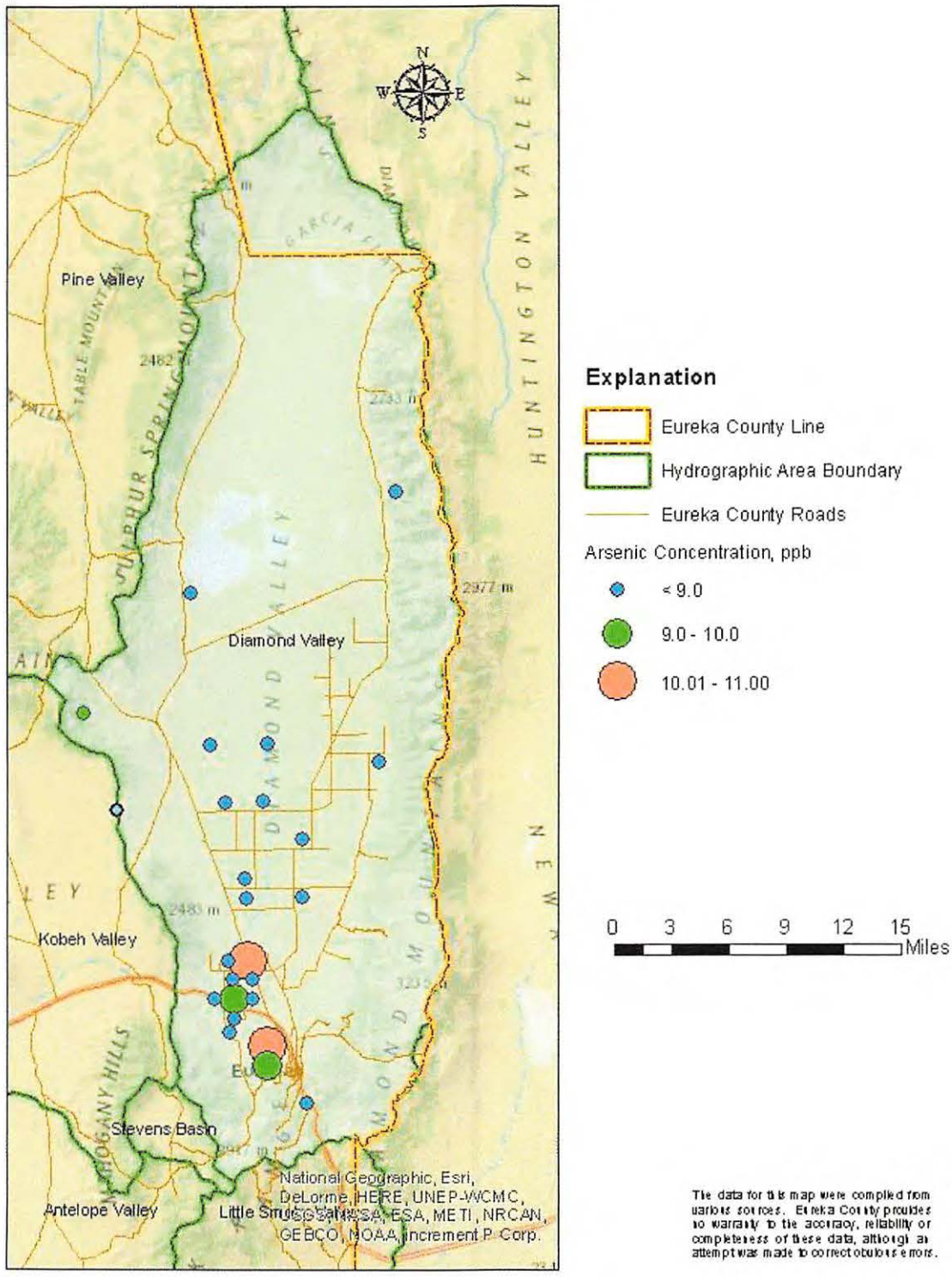


Figure 13. Concentration of Arsenic in Diamond Valley.

Appendix E – Basic Job Description of Water Manager

***This job description is intended to serve as a basic model and is subject to change through DWR in consultation with the AB. ***

Under direction of the State Engineer, the Water Manager shall manage the implementation of the Diamond Valley Groundwater Management Plan (GMP) which intends to bring stabilization and sustainable water use to the groundwater resource in Diamond Valley, Basin 153. This position has the overall responsibility for protection, preservation, implementation and management of the GMP and related work as required.

DUTIES AND RESPONSIBILITIES

The GMP Water Manager will actively manage the GMP as follows:

- Manage water use according to the GMP and under the direction of State Engineer;
- Respond to complaints associated with water use (and alleged misuse) in Diamond Valley. This involves working in the field and requires knowledge of individual water rights, Nevada Water Law, water uses, administrative rules and agency policies. If violations are observed, documentation is prepared to begin administrative or judicial action. The GMP Water Manager may be required to testify accurately to the facts during associated hearings.
- Collect, compile, analyze and interpret hydrologic data. This includes but is not limited to taking flow measurements with complex instruments, troubleshooting, ensuring water meter accuracy, measuring water levels in wells, and performing hydrologic analysis on data collected.
- Prepare budgets and track expenses for the State Engineer under the GMP, including any grant funding received, including preparation of vouchers and invoices to the appropriate entity for payment of invoices received or service rendered.
- Develop, promote, and implement water management programs to assist in the restoration, conservation, and protection of groundwater in Diamond Valley in order to ensure the long-term sustainability of the water resource.

WORKING CONDITIONS

Work with minimal supervision; must have a valid driver's license and good driving record; travel in varied weather and road conditions. Deal with individuals who are angry or hostile; and promote a work climate which reflects care, concern, and respect for every individual. Maintain an environment that is welcoming and free of harassment. Regular attendance at GMP related meetings is an essential function.

QUALIFICATIONS, REQUIRED AND REQUESTED SKILLS

Should possess:

- ❖ Bachelor's degree in Hydrology, Civil Engineering, Geology, Natural Resource Management or equivalent, ***AND***
- ❖ Three years of professionally verified experience including water flow measurement, collecting, and reporting hydrologic data. Knowledge of Nevada Water Law, hydrologic groundwater flow systems, pumping and irrigation systems.
- ❖ ***OR*** an equivalent combination of education and experience.

DESIRED ATTRIBUTES

- ❖ Excellent customer service skills;
- ❖ Excellent communication skills;
- ❖ Dispute resolution skills;
- ❖ Experience working with land owners to gain compliance;
- ❖ Experience developing and presenting budget proposals and tracking and reporting budget expenditures;
- ❖ In-depth knowledge of Nevada Water Law, water rights and Nevada Administrative rules related to water;
- ❖ Experience with computers and computer software, including Geographic Information Systems (GIS).

Appendix F – Preliminary Table of Groundwater Rights and Associated Shares

Permit No.	Cert. No.	Priority Date	MOU	Water Right Duty (Acre-Feet)	Owner of Record	Cumulative Duty	Priority Factor	Shares
30927	11110	3/2/1951	IRR	69.120	CHANEY ASSOCIATES,LYNFORD AND SUSAN MILLER REVOCABLE FAMILY TRUST DATED 12/9/13	69.1200	0.9997	69.1024
44606	12431	3/2/1951	IRR	18.880	LYNFORD & SUSAN MILLER REVOCABLE FAMILY TRUST	88.0000	0.9997	18.8752
44609	12433	3/2/1951	IRR	236.800	LYNFORD & SUSAN MILLER REVOCABLE FAMILY TRUST	324.8000	0.9997	236.7397
48871	13200	9/17/1951	IRR	296.495	GALLAGHER FARMS, LLC; A NEVADA LIMITED LIABILITY COMPANY	621.2950	0.9988	296.1493
70588	18508	9/17/1951	IRR	229.105	GALLAGHER FARMS, LLC; A NEVADA LIMITED LIABILITY COMPANY	850.4000	0.9988	228.8378
14948	6406	3/30/1953	IRD	617.200	DONALD F AND ELIZA M. FAMILY TRUST	1467.6000	0.9967	615.1874
44451	11639	3/30/1953	IRR	576.580	DONALD F. AND LIZA M. PALMORE FAMILY TRUST	2044.1800	0.9967	574.6999
53872	14215	3/30/1953	IRR	617.200	PALMORE FAMILY TRUST	2661.3800	0.9967	615.1874
71748	20006	5/9/1955	IRR	506.800	FRED L. ETCHEGARAY AND JOHN J. ETCHEGARAY, A NEVADA PARTNERSHIP	3168.1800	0.9950	504.2556
77447		3/29/1957	MMD	52.400	RUBY HILL MINING COMPANY, LLC	3220.5800	0.9947	52.1230
77449		3/29/1957	MMD	80.000	RUBY HILL MINING COMPANY, LLC	3300.5800	0.9947	79.5771
83506		3/29/1957	MMD	185.600	RUBY HILL MINING COMPANY, LLC	3486.1800	0.9947	184.6189
18242	6510	8/13/1959	IRR	640.000	ANDERSEN, BONNIE G.,ANDERSEN, HARLOW B.	4126.1800	0.9930	635.4907
72370		8/13/1959	IRR	640.000	ANDERSEN, HARLOW B. & BONNIE G.	4766.1800	0.9930	635.4907
18621	6233	3/7/1960	IRD	412.580	MACHACEK, EUNICE & LAVERNE,RUBY HILL MINING COMPANY, LLC	5178.7600	0.9858	406.7362
18622	6234	3/7/1960	IRD	412.580	MACHACEK, LAVERNE & EUNICE,RUBY HILL MINING COMPANY, LLC	5591.3400	0.9858	406.7362
18623	6205	3/7/1960	IRD	673.231	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA,MACHACEK, JERRY L. & TRINA L.,RUBY HILL MINING COMPANY, LLC	6264.5706	0.9858	663.6949
22194	6182	3/7/1960	IRR	536.000	BAILEY, TIMOTHY LEE AND CONSTANCE MARIE	6800.5706	0.9858	528.4081

22195	6183	3/7/1960	IRR	622.000	BAILEY, TIMOTHY LEE AND CONSTANCE MARIE	7422.5706	0.9858	613.1900
22551	6235	3/7/1960	IRR	439.649	MACHACEK, EUNICE & LAVERNE,RUBY HILL MINING COMPANY, LLC	7862.2200	0.9858	433.4222
22648	6358	3/7/1960	IRR	593.440	BENSON, KENNETH F.,BENSON, PATTI E.	8455.6600	0.9858	585.0345
22921	7874	3/7/1960	IRR	593.440	BENSON, KENNETH F.,BENSON, PATTI E.	9049.1000	0.9858	585.0345
22922	7875	3/7/1960	IRR	279.740	BENSON, PATTI E. AND KENNETH F.	9328.8396	0.9858	275.7773
27976	9084	3/7/1960	IRR	504.480	MARSHALL FAMILY TRUST,RAND, JOSEPH & ELLEN	9833.3196	0.9858	497.3345
36321	10136	3/7/1960	IRR	177.707	BENSON, PATTI E. AND KENNETH F.	10011.0269	0.9858	175.1903
36322	10137	3/7/1960	IRR	188.913	BENSON, PATTI E. AND KENNETH F.	10199.9400	0.9858	186.2373
42891	12226	3/7/1960	IRR	77.165	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA	10277.1048	0.9858	76.0718
55727	15957	3/7/1960	IRR	20.556	BAILEY, CAROLYN,BAILEY, FRED	10297.6608	0.9858	20.2648
64630	16943	3/7/1960	IRR	157.122	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA	10454.7827	0.9858	154.8964
64631	16944	3/7/1960	IRR	157.122	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA	10611.9045	0.9858	154.8964
64632	16945	3/7/1960	IRR	39.031	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA	10650.9360	0.9858	38.4786
86032		3/7/1960	IRR	35.320	BENSON, KENNETH F. AND PATTI E.	10686.2560	0.9858	34.8197
86037		3/7/1960	IRR	159.800	BENSON, KENNETH F. AND PATTI E.	10846.0560	0.9858	157.5366
22982	6191	3/9/1960	IRR	1260.800	AMERICAN FIRST FEDERAL	12106.8560	0.9808	1236.6107
24609	7228	3/14/1960	IRD	1108.140	DIAMOND VALLEY RANCH, LLC,SEWELL, J.H. - LIBERTY LIVESTOCK	13214.9960	0.9791	1084.9336
22352	6309	3/21/1960	IRR	129.280	MARK MOYLE FARMS, LLC	13344.2760	0.9779	126.4255
22353	6310	3/21/1960	IRR	632.000	MARK MOYLE FARMS, LLC	13976.2760	0.9779	618.0455
70940	17146	3/21/1960	IRR	502.720	MARK MOYLE FARMS, LLC	14478.9960	0.9779	491.6200
23803	6521	4/11/1960	IRR	684.800	MILLER, ANTHONY	15163.7960	0.9753	667.8906
83622		4/11/1960	IRR	836.000	LC PROPERTIES	15999.7960	0.9753	815.3571
22566	6561	4/22/1960	IRR	468.000	BUFFHAM, JAMES OR PAMELA,MILLER, LAVON AND KRISTI	16467.7960	0.9704	454.1384
22567	6562	4/22/1960	IRR	468.000	BUFFHAM, JAMES OR PAMELA,MILLER, LAVON AND KRISTI	16935.7960	0.9704	454.1384
23272	6303	4/22/1960	IRR	640.000	BURNHAM FARMS, LLC,BURNHAM, ROBERT O.	17575.7960	0.9704	621.0440
24574	7013	4/22/1960	IRD	680.680	MORRISON, D. LLOYD	18256.4760	0.9704	660.5191
28641	9226	4/22/1960	IRR	640.000	BURNHAM FARMS, LLC	18896.4760	0.9704	621.0440
29405	9671	4/22/1960	IRR	591.320	MORRISON, D. LLOYD	19487.7960	0.9704	573.8059
50963	13183	4/22/1960	IRR	172.000	KOBEH VALLEY RANCH LLC	19659.7960	0.9704	166.9056
57838	15993	4/22/1960	IRR	172.000	KOBEH VALLEY RANCH LLC	19831.7960	0.9704	166.9056

70249	6302	4/22/1960	IRR	1270.800	BURNHAM, ROBERT O.	21102.5960	0.9704	1233.1605
18786	5756	5/2/1960	IRD	640.000	RUTH MARTIN RANCHES, LLC	21742.5960	0.9626	616.0708
18787	5757	5/2/1960	IRD	640.000	RUTH MARTIN RANCHES, LLC	22382.5960	0.9626	616.0708
18788	5758	5/2/1960	IRD	640.000	RUTH MARTIN RANCHES, LLC	23022.5960	0.9626	616.0708
18789	5759	5/2/1960	IRD	640.000	RUTH MARTIN RANCHES, LLC	23662.5960	0.9626	616.0708
18794	6480	5/2/1960	IRD	480.000	MOYLE, DENISE L. AND HICKS, DEANNE M.	24142.5960	0.9626	462.0531
18796	6482	5/2/1960	IRD	640.000	SMITH, CRAIG ALLEN & SHELBA KAY	24782.5960	0.9626	616.0708
18797	6483	5/2/1960	IRD	640.000	SMITH, CRAIG ALLAN & SHELBA KAY	25422.5960	0.9626	616.0708
28036	8415	5/3/1960	IRR	277.000	BAILEY, CAROYLN,BAILEY, FRED	25699.5960	0.9589	265.6139
48948	13361	5/3/1960	IRR	478.560	BAILEY, CAROLYN,BAILEY, FRED	26178.1560	0.9589	458.8887
18802	6024	5/4/1960	IRR	640.000	FRED L. ETCHEGARAY AND JOHN J. ETCHEGARAY, A NEVADA PARTNERSHIP	26818.1560	0.9575	612.8009
18834	5988	5/12/1960	IRR	1276.230	NEWTON, DEBRA L.	28094.3860	0.9545	1218.1188
18835	5987	5/12/1960	IRR	1277.800	NEWTON, DEBRA L.	29372.1860	0.9545	1219.6173
18851	6831	5/16/1960	IRD	512.440	GALLAGHER FARMS, LLC	29884.6260	0.9522	487.9577
70587	18507	5/16/1960	IRR	123.560	GALLAGHER FARMS, LLC; A NEVADA LIMITED LIABILITY COMPANY	30008.1860	0.9522	117.6568
83616		5/16/1960	IRR	544.000	J & T FARMS LLC	30552.1860	0.9522	518.0099
24127	6884	5/18/1960	IRR	640.000	CONAWAY, DALE R.,CONAWAY, ELMA G.	31192.1860	0.9491	607.4060
24128	6883	5/18/1960	IRR	640.000	CONAWAY, DALE R.,CONAWAY, ELMA G.	31832.1860	0.9491	607.4060
24129	7005	5/18/1960	IRR	620.400	MORRISON, ALBERTA J.,MORRISON, DONALD E.	32452.5860	0.9491	588.8042
24130	7006	5/18/1960	IRR	620.400	MORRISION, ALBERTA J.,MORRISION, DONALD E.	33072.9860	0.9491	588.8042
24264	6961	6/3/1960	IRR	928.920	BUFFHAM, JAMES OR PAMELA,DIAMOND VALLEY HAY CO., INC.	34001.9060	0.9446	877.4361
24265	6962	6/3/1960	IRR	944.000	BUFFHAM, JAMES OR PAMELA,DIAMOND VALLEY HAY CO., INC.	34945.9060	0.9446	891.6803
57839		6/3/1960	IRR	156.460	KOBEH VALLEY RANCH LLC	35102.3660	0.9446	147.7884
57840		6/3/1960	IRR	156.460	KOBEH VALLEY RANCH LLC	35258.8260	0.9446	147.7884
66062		6/3/1960	IRR	303.080	KOBEH VALLEY RANCH LLC	35561.9060	0.9446	286.2823
18978	6517	6/6/1960	IRD	730.679	BENSON, CRAIG AND KATHRYN,COOPER, CHARLES C.	36292.5848	0.9417	688.0805
80799		6/6/1960	MMD	123.306	BLISS, CHAD D. & ROSIE J.	36415.8908	0.9417	116.1173
81229		6/6/1960	MMD	39.200	BLISS, CHAD D. & ROSIE J.	36455.0908	0.9417	36.9147
81612		6/6/1960	MMD	222.500	GARAVENTA, GARY G AND MELODY I	36677.5908	0.9417	209.5283
81653		6/6/1960	MMD	222.500	GARAVENTA, GARY G AND MELODY I	36900.0908	0.9417	209.5283
83504		6/6/1960	MMD	100.000	BLISS, CHAD D. & ROSIE J.	37000.0908	0.9417	94.1700
87315T		6/6/1960	MMD	123.306	RUBY HILL MINING COMPANY, LLC	37123.3968	0.9417	116.1173

42019	11844	6/6/1960	IRR	325.041	BENSON, CRAIG AND KATHRYN	37448.4380	0.9417	306.0915
18911	6814	6/8/1960	IRD	1176.000	HILL, HOWARD SR.,HILL, KATHY	38624.4380	0.9388	1104.0194
18927	6085	6/14/1960	IRD	640.000	A.G. FARM COMMODITIES, INC.,HOVIOUS, JOHN R.	39264.4380	0.9373	599.8533
18928	6084	6/14/1960	IRD	640.000	A.G. FARM COMMODITIES, INC.,HOVIOUS, JOHN R.	39904.4380	0.9373	599.8533
18975	6488	7/1/1960	IRD	727.280	SESTANOVICH HAY & CATTLE LLC,SESTANOVICH RANCHES	40631.7180	0.9352	680.1615
34950	10550	7/1/1960	IRR	502.720	SESTANOVICH HAY & CATTLE LLC	41134.4380	0.9352	470.1502
18981	6520	7/6/1960	IRD	80.760	BENSON, CRAIG AND KATHRYN,COOPER, ERMYLE R.	41215.1980	0.9338	75.4150
39552	11804	7/6/1960	IRR	552.120	BENSON, CRAIG AND KATHRYN	41767.3180	0.9338	515.5786
39553	11805	7/6/1960	IRR	543.240	BENSON, CRAIG AND KATHRYN	42310.5580	0.9338	507.2863
18988	6163	7/8/1960	IRD	638.000	SESTANOVICH HAY AND CATTLE	42948.5580	0.9314	594.2539
18989	6164	7/8/1960	IRD	640.000	SESTANOVICH HAY & CATTLE LLC	43588.5580	0.9314	596.1168
18999	6734	7/11/1960	IRD	91.200	COOPER, CHARLES E.	43679.7580	0.9278	84.6144
21426	6720	7/11/1960	IRR	640.000	MORRISON, LLOYD & BELINDA FAYE	44319.7580	0.9278	593.7854
21839	6733	7/11/1960	IRR	632.000	BERGENER, LINDA AND DON	44951.7580	0.9278	586.3631
21841	6736	7/11/1960	IRR	632.000	MICHEL & MARGARET ETHCEVERRY FAMILY LP	45583.7580	0.9278	586.3631
21843	6715	7/11/1960	IRR	624.000	MORRISON, LLOYD AND BELINDA FAYE	46207.7580	0.9278	578.9408
21844	6718	7/11/1960	IRR	632.000	M & C HAY MORRISON TRUST DATED MARCH 26, 2016	46839.7580	0.9278	586.3631
42021	11846	7/11/1960	IRR	548.800	M & C HAY MORRISON FAMILY TRUST DATED MARCH 26, 2016	47388.5580	0.9278	509.1710
19014	6860	7/13/1960	IRR	640.000	J & T FARMS, LLC	48028.5580	0.9235	591.0115
83615		7/13/1960	IRR	189.360	J & T FARMS LLC	48217.9180	0.9235	174.8655
83617		7/13/1960	IRR	442.640	J & T FARMS LLC	48660.5580	0.9235	408.7583
19052	5989	7/21/1960	IRD	0.000	NEWTON, DEBRA L.	48660.5580	0.9229	0.0000
19053	5990	7/21/1960	IRR	0.008	NEWTON, DEBRA L.	48660.5660	0.9229	0.0074
19110	6963	8/10/1960	IRD	640.000	MARK MOYLE FARMS, LLC	49300.5660	0.9214	589.6837
19111	6964	8/10/1960	IRD	622.000	MILES, HAROLD R.,MILES, MURIEL M.	49922.5660	0.9214	573.0988
43268	11523	8/12/1960	IRR	782.100	MARK MOYLE FARMS, LLC	50704.6660	0.9196	719.2571
21428	6722	8/22/1960	IRR	465.960	BENSON, PATTI E. AND KENNETH F.	51170.6260	0.9188	428.1229
86035		8/22/1960	IRR	142.040	BENSON, KENNETH F. AND PATTI E.	51312.6660	0.9188	130.5060
19145	6719	8/24/1960	IRD	640.000	MOYLE, JAMES L.,MOYLE, NANCY J.	51952.6660	0.9177	587.3093
24606	7229	9/7/1960	IRD	1232.000	DIAMOND VALLEY RANCH, LLC	53184.6660	0.9157	1128.1652
19191	6824	9/9/1960	IRD	524.300	ANDERSON, JERRY LEE	53708.9660	0.9144	479.4277
19192	6769	9/9/1960	IRD	596.600	HALPIN FAMILY TRUST	54305.5660	0.9144	545.5399
19218	6713	9/23/1960	IRD	362.400	EUREKA MOLY LLC	54667.9660	0.9130	330.8663
19218	6713	9/23/1960	IRD	348.560	MILLER, OWEN J. AND CHERYL	55016.5260	0.9130	318.2306

19218	6713	9/23/1960	IRD	24.720	WALTER, NORBERT AND EILEEN B.	55041.2460	0.9130	22.5690
24607	7043	9/29/1960	IRD	1232.000	DIAMOND VALLEY RANCH, LLC	56273.2460	0.9108	1122.1352
21929	6189	10/6/1960	IRR	630.400	DIAMOND VALLEY RANCH, LLC	56903.6460	0.9083	572.6177
21930	6215	10/6/1960	IRR	635.200	AMERICAN FIRST FEDERAL	57538.8460	0.9083	576.9778
22316	6190	10/6/1960	IRR	628.800	AMERICAN FIRST FEDERAL	58167.6460	0.9083	571.1644
78906		10/6/1960	IRR	584.400	DIAMOND VALLEY RANCH LLC	58752.0460	0.9083	530.8341
21399	6504	10/10/1960	IRR	1013.168	MICHEL AND MARGARET ANN ETCHEVERRY FAMILY LIMITED PARTNERSHIP	59765.2140	0.9053	917.2112
19279	6870	10/17/1960	IRR	332.000	DUBRAY, FERNO L. & CARRIE M.,GENERAL MOLY, INC.	60097.2140	0.9045	300.3028
44621	12228	10/17/1960	IRR	0.000	RUBY HILL MINING COMPANY, LLC	60097.2140	0.9045	0.0000
48226	11908	10/17/1960	IRR	300.000	M & C HAY MORRISON FAMILY TRUST DATED MARCH 26, 2016	60397.2140	0.9045	271.3579
64633	16946	10/17/1960	IRR	0.000	ERICKSON, TY AND MICHELLE R.; AND ARI AND ALISHA	60397.2140	0.9045	0.0000
19292	6195	10/24/1960	IRD	559.200	DAMELE FARMS, INC.	60956.4140	0.9024	504.6288
19293	6279	10/24/1960	IRD	529.600	DAMELE FARMS, INC.	61486.0140	0.9024	477.9174
23739	6723	10/24/1960	IRR	9.000	EUREKA MOLLY, LLC	61495.0140	0.9024	8.1217
23739	6723	10/24/1960	IRR	893.760	MILLER, OWEN J. AND CHERYL	62388.7740	0.9024	806.5397
35418	10861	11/2/1960	IRR	4.000	RUBIO, DAVID M.,RUBIO, SALLY R.	62392.7740	0.9008	3.6033
47521	11617	11/2/1960	IRR	168.240	ANDERSON, EDWARD B.	62561.0140	0.9008	151.5543
85134		11/2/1960	IRR	240.000	RENNER, IRA R. AND MONTIRA	62801.0140	0.9008	216.1973
19324	6549	11/9/1960	IRD	632.000	SESTANOVICH HAY & CATTLE LLC,WILBANKS, LEROY WINDELL	63433.0140	0.8995	568.4701
19360	6490	11/25/1960	IRD	620.000	ETCHEGARAY FAMILY TRUST	64053.0140	0.8980	556.7626
19361	6491	11/25/1960	IRD	620.000	ETCHEGARAY FAMILY TRUST	64673.0140	0.8980	556.7626
78771		12/5/1960	IRR	362.400	J.W.L. PROPERTIES, LLC	65035.4140	0.8969	325.0356
78774		12/5/1960	IRR	52.000	J.W.L. PROPERTIES, LLC	65087.4140	0.8969	46.6387
19378	7235	12/9/1960	IRR	949.564	MOYLE, DUSTY L.	66036.9779	0.8937	848.6426
19379	6784	12/9/1960	IRD	632.000	MOYLE, DUSTY L.	66668.9779	0.8937	564.8299
19381	6785	12/9/1960	IRR	960.000	MOYLE, DUSTY L.	67628.9779	0.8937	857.9695
24605	7078	12/9/1960	IRR	306.436	MOYLE, DUSTY L.	67935.4140	0.8937	273.8675
19411	7025	12/19/1960	IRD	384.000	HOMESTAKE MINING COMPANY OF CALIFORNIA,RUBY HILL MINING COMPANY, LLC	68319.4140	0.8916	342.3712
73204		12/19/1960	MM	16.000	RUBY HILL MINING COMPANY, LLC	68335.4140	0.8916	14.2655
79706		12/19/1960	MMD	48.000	RUBY HILL MINING COMPANY, LLC	68383.4140	0.8916	42.7964
85646		12/19/1960	MMD	65.000	RUBY HILL MINING COMPANY, LLC	68448.4140	0.8916	57.9535
87314T		12/19/1960	MMD	113.000	RUBY HILL MINING COMPANY, LLC	68561.4140	0.8916	100.7498
19490	6807	1/25/1961	IRD	0.000	SOLARIJOS LLC	68561.4140	0.8914	0.0000
19492	6786	1/27/1961	IRD	624.000	CONLEY, BEVERLY A. AND CONLEY, KENNETH E.	69185.4140	0.8878	553.9950

19492	6786	1/27/1961	IRD	632.000	MOYLE, DUSTY L.	69817.4140	0.8878	561.0975
19500	7464	1/27/1961	IRR	664.400	CONLEY LAND & LIVESTOCK, LLC	70481.8140	0.8878	589.8626
19501	7465	1/27/1961	IRD	657.920	CONLEY LAND & LIVESTOCK, LLC	71139.7340	0.8878	584.1096
19502	7517	1/27/1961	IRR	609.080	CONLEY LAND & LIVESTOCK, LLC	71748.8140	0.8878	540.7488
22217	7576	1/27/1961	IRR	644.280	CONLEY LAND AND LIVESTOCK LLC	72393.0940	0.8878	571.9998
19526	6759	2/3/1961	IRD	1204.000	BAUMAN, JAMES E.,BAUMAN, VERA L.	73597.0940	0.8834	1063.5787
87115T		2/8/1961	IRR	418.670	DIAMOND VALLEY RANCH, LLC	74015.7640	0.8823	369.3948
87116T		2/8/1961	IRR	146.530	DIAMOND VALLEY RANCH, LLC	74162.2940	0.8823	129.2842
87117T		2/8/1961	IRR	468.000	DIAMOND VALLEY RANCH, LLC	74630.2940	0.8823	412.9190
19563	6258	2/13/1961	IRD	1279.480	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	75909.7740	0.8797	1125.5664
19760	6797	4/18/1961	IRD	1276.000	BURNHAM FARMS, LLC	77185.7740	0.8767	1118.7180
24272	7072	4/18/1961	IRR	640.000	BURNHAM FARMS, LLC,EDEN ESTATES, LLC	77825.7740	0.8767	561.1125
46505	13353	4/18/1961	IRR	510.400	BURNHAM FARMS, LLC	78336.1740	0.8767	447.4872
19904	6484	6/6/1961	IRR	0.000	DIAMOND VALLEY RANCH, LLC	78336.1740	0.8759	0.0000
19965	6764	7/3/1961	IRD	632.000	BAR D LAND & LIVESTOCK, LLC,RAND, JOSEPH L. AND ELLEN M.	78968.1740	0.8733	551.9505
19966	7041	7/3/1961	IRR	218.200	BAR D LAND & LIVESTOCK, LLC,RAND, JOSEPH L. & ELLEN M.	79186.3740	0.8733	190.5627
19971	8082	7/3/1961	IRD	0.000	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	79186.3740	0.8733	0.0000
19972	6241	7/3/1961	IRR	456.893	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	79643.2670	0.8733	399.0226
19973	6242	7/3/1961	IRR	456.893	PLASKETT, TOMMYE,PLASKETT, WALTER	80100.1600	0.8733	399.0226
28160	9043	7/3/1961	IRR	0.000	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	80100.1600	0.8733	0.0000
34948	10615	7/3/1961	IRR	180.287	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	80280.4468	0.8733	157.4516
46348	11793	7/3/1961	IRR	187.247	PLASKETT, TOMMYE J.,PLASKETT, WALTER L.	80467.6940	0.8733	163.5304
78447		7/3/1961	IRR	0.000	BAR D LAND & LIVESTOCK, LLC	80467.6940	0.8733	0.0000
80581		7/3/1961	IRR	405.800	BAR D LAND & LIVESTOCK, LLC	80873.4940	0.8733	354.4011
20000	6991	7/24/1961	IRD	0.000	MOYLE, DUSTY L.	80873.4940	0.8717	0.0000
78772		7/24/1961	IRR	128.000	J.W.L. PROPERTIES, LLC	81001.4940	0.8717	111.5826
20015	6760	7/28/1961	IRD	0.000	MOYLE, DUSTY L.	81001.4940	0.8716	0.0000
20046	6545	8/23/1961	IRR	640.000	BURNHAM FARMS, LLC	81641.4940	0.8706	557.1988
20087	6173	9/19/1961	IRD	0.000	DIAMOND VALLEY RANCH, LLC	81641.4940	0.8706	0.0000
20088	6227	9/19/1961	IRD	16.000	DIAMOND VALLEY RANCH, LLC	81657.4940	0.8706	13.9294
24262	6959	9/19/1961	IRR	7.540	BUFFHAM, JAMES OR PAMELA,DIAMOND VALLEY HAY CO., INC.	81665.0340	0.8706	6.5642

24263	6960	9/19/1961	IRR	7.540	BUFFHAM, JAMES OR PAMELA,DIAMOND VALLEY HAY CO., INC.	81672.5740	0.8706	6.5642
57835		9/19/1961	IRR	0.000	KOBEH VALLEY RANCH LLC	81672.5740	0.8706	0.0000
57836		9/19/1961	IRR	0.000	KOBEH VALLEY RANCH LLC	81672.5740	0.8706	0.0000
20366	6196	3/14/1962	IRR	638.310	MARK MOYLE FARMS, LLC	82310.8840	0.8696	555.0503
21561	6958	3/21/1962	IRR	3.000	EUREKA MOLY LLC	82313.8840	0.8693	2.6080
21561	6958	3/21/1962	IRR	132.560	MILLER, OWEN J. AND CHERYL	82446.4440	0.8693	115.2395
21561	6958	3/21/1962	IRR	24.720	WALTER, NORBERT AND EILEEN B.	82471.1640	0.8693	21.4900
81650		3/21/1962	IRR	106.448	EUREKA MOLY, LLC	82577.6120	0.8693	92.5393
80780		5/23/1962	IRR	0.000	SESTANOVICH HAY & CATTLE LLC	82577.6120	0.8691	0.0000
80781		5/23/1962	IRR	0.000	SESTANOVICH HAY & CATTLE LLC	82577.6120	0.8691	0.0000
20487	7352	5/25/1962	IRR	510.800	BUFFHAM, JAMES OR PAMELA,MARSHALL, REESE W.	83088.4120	0.8682	443.4907
50962	13182	5/25/1962	IRR	129.200	KOBEH VALLEY RANCH LLC	83217.6120	0.8682	112.1750
20565	6942	7/12/1962	IRR	250.000	MINOLETTI, JOHN B. AND NANCY M	83467.6120	0.8677	216.9323
20694	6503	9/6/1962	IRD	0.000	MICHEL AND MARGARET ANN ETCHEVERRY FAMILY LIMITED PARTNERSHIP	83467.6120	0.8677	0.0000
48872	13201	12/10/1962	IRR	203.540	GALLAGHER FARMS, LLC; A NEVADA LIMITED LIABILITY COMPANY	83671.1520	0.8667	176.4103
67172	17329	12/10/1962	IRR	495.070	MARK MOYLE FARMS, LLC	84166.2220	0.8667	429.0824
78568	18992	12/10/1962	IRR	327.800	MARK MOYLE FARMS, LLC	84494.0220	0.8667	284.1077
21085	6485	2/18/1963	IRD	623.600	MILLER, ANTHONY	85117.6220	0.8651	539.4854
43270	11525	8/7/1963	IRR	217.900	MARK MOYLE FARMS, LLC	85335.5220	0.8648	188.4332
83623		8/16/1963	IRR	402.000	LC PROPERTIES	85737.5220	0.8641	347.3811
23738	6529	10/30/1963	IRR	0.000	EUREKA MOLLY, LLC,MILLER, OWEN J. AND CHERYL	85737.5220	0.8641	0.0000
44452	11640	3/4/1964	IRR	637.020	DONLAD F. AND ELIZA M. PALMORE FAMILT TRUST	86374.5420	0.8631	549.8264
40010	10593	8/6/1964	IRR	458.640	THE LYNFORD AND SUSAN MILLER REVOCABLE FAMILY TRUST DATED DEC.9,2013	86833.1820	0.8620	395.3635
40011	10594	8/6/1964	IRR	108.590	BURNHAM FARMS, LLC	86941.7720	0.8620	93.6083
80879	19853	8/6/1964	IRR	249.520	NORTON, WILLIAM H JR AND PATRICIA A	87191.2920	0.8620	215.0948
80880	19854	8/6/1964	IRR	87.280	NORTON, WILLIAM H JR AND PATRICIA A	87278.5720	0.8620	75.2384
79707		10/19/1964	MMD	3.000	RUBY HILL MINING COMPANY, LLC	87281.5720	0.8614	2.5843
83501		10/19/1964	MMD	10.000	RUBY HILL MINING COMPANY, LLC	87291.5720	0.8614	8.6143
83502		10/19/1964	MMD	55.200	RUBY HILL MINING COMPANY, LLC	87346.7720	0.8614	47.5507
83507		10/19/1964	MMD	134.800	RUBY HILL MINING COMPANY, LLC	87481.5720	0.8614	116.1202
85647		10/19/1964	MMD	35.000	RUBY HILL MINING COMPANY, LLC	87516.5720	0.8614	30.1499

68923		10/19/1964	IRR	236.000	RUBY HILL MINING COMPANY, LLC	87752.5720	0.8614	203.2966
83505		2/22/1965	MMD	105.454	RUBY HILL MINING COMPANY, LLC	87858.0256	0.8606	90.7542
85645		2/22/1965	MMD	206.134	RUBY HILL MINING COMPANY, LLC	88064.1600	0.8606	177.4010
50581	12378	12/13/1965	IRR	249.660	EZRA C. LUNDAHL, INC.,SADLER RANCH, LLC	88313.8200	0.8599	214.6807
77083		12/13/1965	IRR	198.290	SADLER RANCH, LLC	88512.1100	0.8599	170.5081
23462	7831	10/28/1966	IRR	0.000	MILLER, ANTHONY	88512.1100	0.8597	0.0000
23711	6794	2/23/1967	IRR	0.000	EUREKA MOLLY, LLC,MILLER, OWEN J. AND CHERYL	88512.1100	0.8597	0.0000
50650	13836	4/17/1967	IRR	640.000	MOYLE, JAMES L.,MOYLE, NANCY JANE	89152.1100	0.8582	549.2645
77666		4/17/1967	IRR	394.120	BAR D LAND & LIVESTOCK, LLC	89546.2300	0.8582	338.2439
83567		4/17/1967	IRR	149.280	BAR D LAND & LIVESTOCK, LLC	89695.5100	0.8582	128.1159
29765	8881	5/15/1967	IRR	656.200	HALPIN FAMILY TRUST	90351.7100	0.8568	562.2453
23893	7695	5/25/1967	IRR	0.000	MILES, HAROLD R.,MILES, MURIEL M.	90351.7100	0.8568	0.0000
23918	8648	6/5/1967	IRR	44.400	NORTON, WILIAM H. AND SHIRLEY,NORTON, WILLIAM H. JR.	90396.1100	0.8566	38.0315
77646	19847	6/5/1967	IRR	123.600	WILLIAM H NORTON	90519.7100	0.8566	105.8714
80926	19851	6/5/1967	IRR	103.200	NORTON, WILLIAM H JR	90622.9100	0.8566	88.3975
47520	11616	7/13/1967	IRR	638.720	ANDERSON, EDWARD B.	91261.6300	0.8554	546.3471
24214	8174	11/13/1967	IRR	600.320	ANDERSON, EDWARD B.,ANDERSON, JERRY LEE	91861.9500	0.8544	512.9295
28061	8639	12/11/1967	IRR	0.000	BURNHAM FARMS, LLC	91861.9500	0.8544	0.0000
24378	8556	2/22/1968	IRR	0.000	EUREKA MOLY LLC,RUBY HILL RANCH, INC.,SEAN PECK,WALTER, NORBERT AND EILEEN B.	91861.9500	0.8544	0.0000
78905		7/25/1968	IRR	0.000	DIAMOND VALLEY RANCH LLC	91861.9500	0.8544	0.0000
81230		12/30/1968	MMD	0.000	BLISS, CHAD D. & ROSIE J.	91861.9500	0.8544	0.0000
83503		12/30/1968	MMD	0.000	BLISS, CHAD D. & ROSIE J.	91861.9500	0.8544	0.0000
30102	10113	8/27/1969	IRR	890.270	MOYLE, JAMES L.,MOYLE, NANCY JANE	92752.2200	0.8530	759.4145
46287	13993	9/14/1970	IRR	632.000	GROTH, DANIEL E..	93384.2200	0.8516	538.1833
51647	13582	9/14/1970	IRR	578.800	GROTH, DANIEL E.	93963.0200	0.8516	492.8805
26437	11004	12/14/1971	IRR	508.800	ALLEN, ROGER B. & JUDY B.	94471.8200	0.8499	432.4229
47591	11243	12/14/1971	IRR	508.800	ALLEN, ROGER B. & JUDY B.	94980.6200	0.8499	432.4229
26664	8945	4/12/1972	IRR	160.000	KEPHART, MARY A.,KEPHART, RICHARD E.	95140.6200	0.8491	135.8567
56652	14447	4/12/1972	IRR	160.000	KEPHART, MARI A.,KEPHART, RICHARD E.	95300.6200	0.8491	135.8567
29278	9262	4/9/1973	IRR	0.000	BURNHAM FARMS, LLC	95300.6200	0.8490	0.0000
28035	8414	1/23/1974	IRR	201.560	BAILEY, CAROLYN,BAILEY, FRED	95502.1800	0.8487	171.0555
28561	9171	8/1/1974	IRR	520.000	BURNHAM FARMS, LLC	96022.1800	0.8478	440.8737
43271	11526	3/17/1975	IRR	525.615	BERG PROPERTIES CALIFORNIA, LLC	96547.7950	0.8449	444.1084
43272	11527	3/17/1975	IRR	525.615	BERG PROPERTIES CALIFORNIA, LLC	97073.4100	0.8449	444.1084

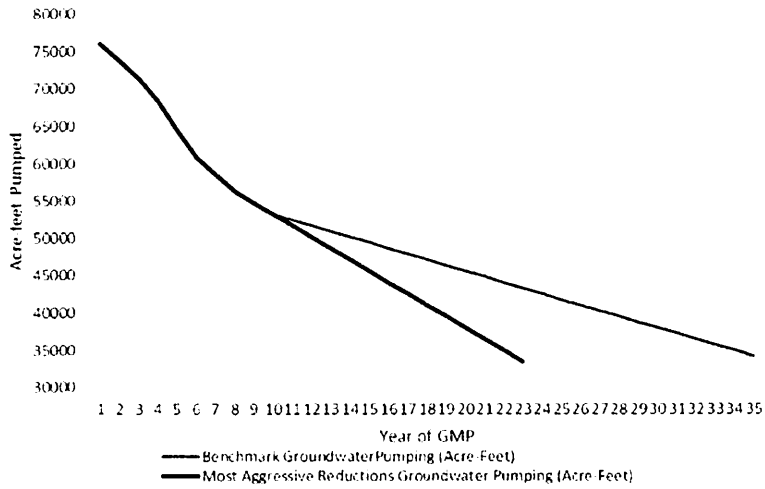
43273	11528	3/17/1975	IRR	514.385	BERG PROPERTIES CALIFORNIA, LLC	97587.7950	0.8449	434.6199
43274	11529	3/17/1975	IRR	514.385	BERG PROPERTIES CALIFORNIA, LLC	98102.1800	0.8449	434.6199
43837	11531	3/17/1975	IRR	111.985	BLANCO RANCH, LLC	98214.1650	0.8449	94.6196
43838	11532	3/17/1975	IRR	111.985	BLANCO RANCH, LLC	98326.1500	0.8449	94.6196
43839	11533	3/17/1975	IRR	109.615	BLANCO RANCH, LLC	98435.7650	0.8449	92.6171
43840	11534	3/17/1975	IRR	109.615	BLANCO RANCH, LLC	98545.3800	0.8449	92.6171
29557	10090	7/29/1975	IRR	487.360	MOYLE, JAMES L. & N. JANE	99032.7400	0.8426	410.6282
43397	11636	7/29/1975	IRR	640.000	MOYLE, JAMES L. & N. JANE	99672.7400	0.8426	539.2359
39156	10716	8/8/1975	IRR	891.855	FRED L. ETCHEGARAY & JOHN J. ETCHEGARAY (PTR), A NEVADA PARTNERSHIP	100564.5946	0.8404	749.4716
55535	14918	8/8/1975	IRR	358.385	FRED L. ETCHEGARAY & JOHN J. ETCHEGARAY (PTR), A NEVADA PARTNERSHIP	100922.9800	0.8404	301.1698
29873	10129	12/24/1975	IRR	194.865	MOYLE, JAMES L.,MOYLE, NANCY JANE	101117.8450	0.8396	163.6095
81268		12/24/1975	IRR	194.865	MOYLE, JAMES L AND N JANE	101312.7100	0.8396	163.6095
29895	11107	1/7/1976	IRR	502.640	BLEHM, RONALD W. AND GLADYS A.,OLIVIERA, EGIDIO	101815.3500	0.8380	421.2053
30928	11111	1/7/1976	IRR	433.520	CHANEY ASSOCIATES,LYNFORD AND SUSAN MILLER REVOCABLE FAMILY TRUST DATED 12/9/13	102248.8700	0.8380	363.2837
44604	12429	1/7/1976	IRR	137.360	LYNFORD & SUSAN MILLER REVOCABLE FAMILY TRUST	102386.2300	0.8380	115.1058
44605	12430	1/7/1976	IRR	109.760	LYNFORD & SUSAN MILLER REVOCABLE FAMILY TRUST	102495.9900	0.8380	91.9774
49185	13309	6/1/1976	IRR	502.720	MOYLE, DUSTY L.	102998.7100	0.8368	420.6652
40402	11634	6/10/1976	IRR	508.800	MOYLE, DUSTY L.	103507.5100	0.8360	425.3426
30913	11109	12/10/1976	IRR	477.800	MOYLE, DUSTY L.	103985.3100	0.8352	399.0657
50582	12379	12/22/1976	IRR	850.380	EZRA C. LUNDAHL, INC.,SADLER RANCH, LLC	104835.6900	0.8333	708.6299
85145		12/22/1976	IRR	703.790	SADLER RANCH LLC	105539.4800	0.8333	586.4750
31062	10132	2/2/1977	IRR	553.680	BAR D LAND & LIVESTOCK, LLC	106093.1600	0.8315	460.3628
31063	10133	2/2/1977	IRR	523.200	BAR D LAND & LIVESTOCK, LLC	106616.3600	0.8315	435.0199
31108	9331	2/17/1977	IRR	541.440	MOYLE, DENISE L. AND HICKS, DEANNE M.	107157.8000	0.8274	447.9760
31110	9333	2/17/1977	IRR	541.440	MOYLE, DENISE L. AND HICKS, DEANNE M.	107699.2400	0.8274	447.9760
31111	9334	2/17/1977	IRR	158.000	MOYLE, DENISE L. AND HICKS, DEANNE M.	107857.2400	0.8274	130.7259
31113	9336	2/17/1977	IRR	533.600	MOYLE, DENISE L. AND HICKS, DEANNE, M	108390.8400	0.8274	441.4893
31114	9337	2/17/1977	IRR	537.600	MOYLE, DENISE L. AND HICKS, DEANNE M.	108928.4400	0.8274	444.7989
76358		2/17/1977	IRR	545.440	MOYLE, DENISE L. AND HICKS, DEANNE M.	109473.8800	0.8274	451.2855
77569		2/17/1977	IRR	326.380	MOYLE, DENISE L. AND HICKS, DEANNE M.	109800.2600	0.8274	270.0399

78062		2/17/1977	IRR	628.000	MOYLE, DENISE L. AND HICKS, DEANNE M.	110428.2600	0.8274	519.5939
81269		2/17/1977	IRR	207.220	MOYLE, DENISE L. AND HICKS, DEANNE M.	110635.4800	0.8274	171.4494
31454	10708	5/3/1977	IRR	520.000	HALPIN, JAYME L.	111155.4800	0.8233	428.1079
31455	10709	5/3/1977	IRR	512.120	HALPIN, JAYME L.	111667.6000	0.8233	421.6204
81004		5/3/1977	IRR	51.080	HALPIN, JAYME L	111718.6800	0.8233	42.0534
43269	11524	7/21/1977	IRR	76.800	BLANCO RANCH, LLC	111795.4800	0.8228	63.1940
43836	11530	7/21/1977	IRR	0.000	MARK MOYLE FARMS, LLC	111795.4800	0.8228	0.0000
33018	11069	8/3/1977	IRR	480.000	MARTIN P. & KATHLEEN A. ETCHEVERRY TRUST & ETCHEVERRY, MARK T. & JENNIFER	112275.4800	0.8213	394.2118
33019	11070	8/3/1977	IRR	480.000	MARTIN P. & KATHLEEN A. ETCHEVERRY TRUST & ETCHEVERRY, MARK T. & JENNIFER	112755.4800	0.8213	394.2118
42367	14443	8/3/1977	IRR	40.000	KEPHART, MARI ALICE,KEPHART, RICHARD E.	112795.4800	0.8213	32.8510
42368	14444	8/3/1977	IRR	40.000	KEPHART, MARI ALICE,KEPHART, RICHARD E.	112835.4800	0.8213	32.8510
42369	14445	8/3/1977	IRR	120.000	KEPHART, MARI ALICE,KEPHART, RICHARD E.	112955.4800	0.8213	98.5530
42370	14446	8/3/1977	IRR	120.000	KEPHART, MARI ALICE,KEPHART, RICHARD E.	113075.4800	0.8213	98.5530
33668	9386	9/19/1977	IRR	611.870	WISEHART, LARRY	113687.3500	0.8184	500.7308
33669	9387	9/19/1977	IRR	611.870	WISEHART, LARRY	114299.2200	0.8184	500.7308
33670	10433	9/19/1977	IRR	632.350	WISEHART, LARRY	114931.5700	0.8184	517.4908
33671	9672	9/19/1977	IRR	632.350	WISEHART, LARRY	115563.9200	0.8184	517.4908
33817	12364	9/27/1977	IRR	511.600	BELL, SCOTT THOMAS AND KRISTINE LOUISE,MULFORD, DELLA C. AND DENNY S.	116075.5200	0.8154	417.1440
33818	12365	9/27/1977	IRR	510.800	BELL, SCOTT THOMAS AND KRISTINE LOUISE,MULFORD, DELLA C. AND DENNY S.	116586.3200	0.8154	416.4917
85131		9/27/1977	IRR	33.200	RENNER, IRA R. AND MONTIRA	116619.5200	0.8154	27.0703
85132		9/27/1977	IRR	128.400	RENNER, IRA R. AND MONTIRA	116747.9200	0.8154	104.6937
34561	10529	11/3/1977	IRR	516.010	MARK MOYLE FARMS, LLC	117263.9300	0.8138	419.9168
34562	10530	11/3/1977	IRR	499.480	MARK MOYLE FARMS, LLC	117763.4100	0.8138	406.4651
34596	11007	11/10/1977	IRR	330.628	M & C HAY MORRISON FAMILY TRUST DATED MARCH 26, 2016	118094.0385	0.8126	268.6704
48225	11907	11/10/1977	IRR	317.768	M & C HAY MORRISON FAMILY TRUST DATED MARCH 26, 2016	118411.8060	0.8126	258.2195
73899		11/21/1977	IRR	508.776	DENNIS L WEST & KIM KENNEDY WEST,DENNIS L. WEST & KIM KENNEDY WEST	118920.5820	0.8115	412.8463
78358		11/21/1977	IRR	122.400	DENNIS L WEST AND KIM KENNEDY WEST	119042.9820	0.8115	99.3215
34939	11044	2/3/1978	IRR	520.000	MARK MOYLE FARMS, LLC	119562.9820	0.8105	421.4751
44610	12434	2/3/1978	IRR	0.000	BURNHAM FARMS, LLC	119562.9820	0.8105	0.0000

35009	10225	2/16/1978	IRR	487.560	BENSON, KENNETH F.,BENSON, PATTI E.	120050.5420	0.8084	394.1201
35012	12453	2/16/1978	IRR	511.600	ETCHEVERRY, JAMES F.,MULFORD, DENNY S. & DELLA C.	120562.1420	0.8084	413.5528
35013	11623	2/16/1978	IRR	546.640	MICHEL & MARGARET ETHCEVERRY FAMILY LP	121108.7820	0.8084	441.8775
39554	11806	2/16/1978	IRR	0.000	BENSON, CRAIG AND KATHRYN	121108.7820	0.8084	0.0000
42020	11845	2/16/1978	IRR	0.000	BENSON, CRAIG AND KATHRYN	121108.7820	0.8084	0.0000
85133		2/16/1978	IRR	128.400	RENNER, IRA R. AND MONTIRA	121237.1820	0.8084	103.7924
86033		2/16/1978	IRR	144.440	BENSON, KENNETH F. AND PATTI E.	121381.6220	0.8084	116.7583
46461	12213	3/17/1978	IRR	576.000	MOYLE, DUSTY L.	121957.6220	0.8059	464.2182
49188	12674	3/17/1978	IRR	502.720	MOYLE, DUSTY L.	122460.3420	0.8059	405.1593
50095	13310	3/17/1978	IRR	508.800	MOYLE, DUSTY L.	122969.1420	0.8059	410.0594
35374	12193	5/2/1978	IRR	108.440	DUBRAY, FERNO L. & CARRIE M.	123077.5820	0.8044	87.2323
35375	12194	5/2/1978	IRR	387.040	DUBRAY, FERNO L. AND CARRIE M.,ROUSE, W.E. & BARBARA J.	123464.6220	0.8044	311.3462
49853	12206	5/2/1978	IRR	59.260	DUBRAY, FERNO L. & CARRIE M.	123523.8820	0.8044	47.6705
49854	12207	5/2/1978	IRR	59.260	DUBRAY, FERNO L. & CARRIE M.	123583.1420	0.8044	47.6705
47518	11614	5/12/1978	IRR	463.200	ANDERSON, EDWARD B.	124046.3420	0.8034	372.1461
78773		8/7/1978	IRR	398.400	J.W.L. PROPERTIES, LLC	124444.7420	0.8027	319.8049
78775		8/7/1978	IRR	88.000	J.W.L. PROPERTIES, LLC	124532.7420	0.8027	70.6396
47519	11615	9/13/1978	IRR	0.000	ANDERSON, EDWARD B.	124532.7420	0.8027	0.0000
41883	10476	9/20/1978	IRR	78.400	MILLER, OWEN J. AND CHERYL	124611.1420	0.8025	62.9134
41884	10477	9/20/1978	IRR	78.400	MILLER, OWEN J. AND CHERYL	124689.5420	0.8025	62.9134
36070	10135	10/20/1978	IRR	0.000	MOYLE, JAMES L.,MOYLE, NANCY JANE	124689.5420	0.8010	0.0000
40013	10595	10/20/1978	IRR	44.000	THE LYNFORD AND SUSAN MILLER REVOCABLE FAMILY TRUST DATED DEC.9,2013	124733.5420	0.8010	35.2455
40014	10596	10/20/1978	IRR	393.000	BURNHAM FARMS, LLC	125126.5420	0.8010	314.8065
77695	19848	10/20/1978	IRR	469.920	WILLIAM H NORTON	125596.4620	0.8010	376.4221
77696	19849	10/20/1978	IRR	295.120	WILLIAM H NORTON	125891.5820	0.8010	236.4013
80717	19852	10/20/1978	IRR	136.000	NORTON, WILLIAM H JR AND PATRICIA A	126027.5820	0.8010	108.9407
80718	19850	10/20/1978	IRR	135.600	NORTON, WILLIAM H JR	126163.1820	0.8010	108.6203
80881	19855	10/20/1978	IRR	44.000	NORTON, WILLIAM H JR AND PATRICIA A	126207.1820	0.8010	35.2455
44607	12432	12/29/1978	IRR	0.000	LYNFORD & SUSAN MILLER REVOCABLE FAMILY TRUST	126207.1820	0.8000	0.0000
48437	11947	12/29/1978	IRR	0.000	MARK MOYLE FARMS, LLC	126207.1820	0.8000	0.0000
					Total Shares	**113513.6415**		

Appendix G – Groundwater Allocation and Pumping Reduction Table

Year of GMP	Benchmark Groundwater Pumping (Acre-Feet)	Benchmark Cumulative Pumping Reduction (%)	Benchmark Water Allocation (AF/Share)	Most Aggressive Cumulative Reduction (%)	Most Aggressive Reductions Groundwater Pumping (Acre-Feet)	Most Agreessive Reductions Water Allocation (AF/Share)
1	76000	0	0.670	0	76000	0.670
2	73720	3	0.649	3	73720	0.649
3	71440	6	0.629	6	71440	0.629
4	68400	10	0.603	10	68400	0.603
5	64600	15	0.569	15	64600	0.569
6	60800	20	0.536	20	60800	0.536
7	58520	23	0.516	23	58520	0.516
8	56240	26	0.495	26	56240	0.495
9	54720	28	0.482	28	54720	0.482
10	53200	30	0.469	30	53200	0.469
11	52440	31	0.462	32	51680	0.455
12	51680	32	0.455	34	50160	0.442
13	50920	33	0.449	36	48640	0.428
14	50160	34	0.442	38	47120	0.415
15	49400	35	0.435	40	45600	0.402
16	48640	36	0.428	42	44080	0.388
17	47880	37	0.422	44	42560	0.375
18	47120	38	0.415	46	41040	0.362
19	46360	39	0.408	48	39520	0.348
20	45600	40	0.402	50	38000	0.335
21	44840	41	0.395	52	36480	0.321
22	44080	42	0.388	54	34960	0.308
23	43320	43	0.382	56	33440	0.295
24	42560	44	0.375			
25	41800	45	0.368			
26	41040	46	0.362			
27	40280	47	0.355			
28	39520	48	0.348			
29	38760	49	0.341			
30	38000	50	0.335			
31	37240	51	0.328			
32	36480	52	0.321			
33	35720	53	0.315			
34	34960	54	0.308			
35	34200	55	0.301			



Note: Annual Allocations are calculated by taking the total pumping allowed in any given year under the GMP and dividing by the total number of Shares, being 113,513.641.

Appendix H – Utah State University (USU) Water Lab Flow Meter Testing

Minimum Meter Specifications:
All meter models to be tested for approval must meet the following minimum manufacturer specifications:

1) Operational flow range of 0.1 to 33 feet per second (fps).
2) Listed manufacturer accuracy of ± 2% of flow rate from 0.1 to 33 fps, with a repeatability of ±0.5% of reading.
3) The register or display unit shall:
    a. Have a waterproof and tamperproof seal.
    b. Have an LCD backlit display showing instantaneous flow rate and totalized volume.
    c. Have a minimum of six (6) digits for flow rate display.
    d. Have a minimum of eight (8) digits for totalized volume display and a sufficient selection of multipliers so that reset of the display will not occur within two years operation, based on the maximum rate of flow and annual volume elements of the authorizing water rights. See Table 1 for examples of appropriate meter multipliers based on expected annual volume use.
    e. Have password or similar protection of all settings and data to prevent unauthorized programming change or re-set of totalizers.
    f. Have a non-volatile memory and contain a back-up battery to prevent loss of data in the case of primary power failure.
    g. Contain programmable features that allow the selection of flow rate units. Available flow units must include gallons per minute (gpm) or cubic feet per second (cfs). The flow rate field must also allow decimal display formatting of up to three (3) places when using cubic feet per second units.
    h. Contain programmable features that allow the selection of volumetric units. Available units of volume must include gallons or acre feet. The volume field must also allow decimal formatting of up to four places, and the application of unit multipliers ranging from 0.0001 to 10,000. See Table 1 for examples of appropriate meter multipliers based on expected annual volume use.
4) Signal output when data logger is required.
   Data loggers may be required by specific water right conditions of approval in some locations or circumstances.
   Scaled pulse frequency output (or pulse counting) is required for continuous recording of totalized volume data on data loggers. Output signals must be compatible with data logger inputs. Analog output signal for flow rate (usually 4-20mA) is optional (most magnetic flow meters provide both analog and pulse frequency as standard output signals).

Table 1: Meter multiplier selection based on water right volume.

Volume Acre Feet (AF)	Multiplier X gallons (gal)	Multiplier X Acre Feet (AF)
0-150	1, 10, 100	.0001, .001
>150-1000	10, 100, 1000	.001, .01
>1000	100, 1000	.001, .01

Third Party Testing Criteria
Independent third party testing is conducted by the UWRL at Utah State University using NIST traceable instrumentation. All meters will be tested using a NIST traceable weight tank and/or an

approved/calibrated secondary flow metering device to measure actual flows. The gravimetric (weight tank) measurement method has an accuracy rating of 0.15% and the secondary meters provide 0.25% accurate flow measurements.

Results of the testing must meet the following minimum criteria established by IDWR.

1. Accuracy of +/- 2% of flow rate over the entire range of tested flows
2. Repeatability of +/- 0.5% defined as the percent deviation of flow rate from average accuracy at each data point

Magnetic Flow Meters

1. The tests will be performed in standard wall carbon steel 10-inch pipe, which has an inside diameter of 10.02 inches. A 10-inch diameter meter is required for testing.
2. Two tests will be conducted for each meter that is sent to the laboratory. These include a straight pipe test and a short-coupled test with the meter installed downstream of a flow disturber.
    a. Straight pipe test: This test will be performed to establish the baseline accuracy of the meter under ideal conditions. A minimum of 40 diameters of straight 10-inch pipe will be installed upstream of the meter for these tests.
    i. 5 data points tested at 1 fps, 4 fps, 8 fps, 12 fps, and 16 fps.
    b. Elbow test: The meter will be installed with the upstream flange located 3 diameters downstream of a 90 degree elbow.
        i. 14 data points tested from 0.5 fps to 16 fps with an additional point at 20 fps. (15 points total)
        ii. The meter will be shut down, re-zeroed if necessary, and then 5 data points repeated at 1 fps, 4 fps, 8 fps, 12 fps, and 16 fps.
        iii. Step ii. repeated with data points replicated as close as possible.
3. Both the 4-20mA signal and the meter's local display will be recorded for each run.

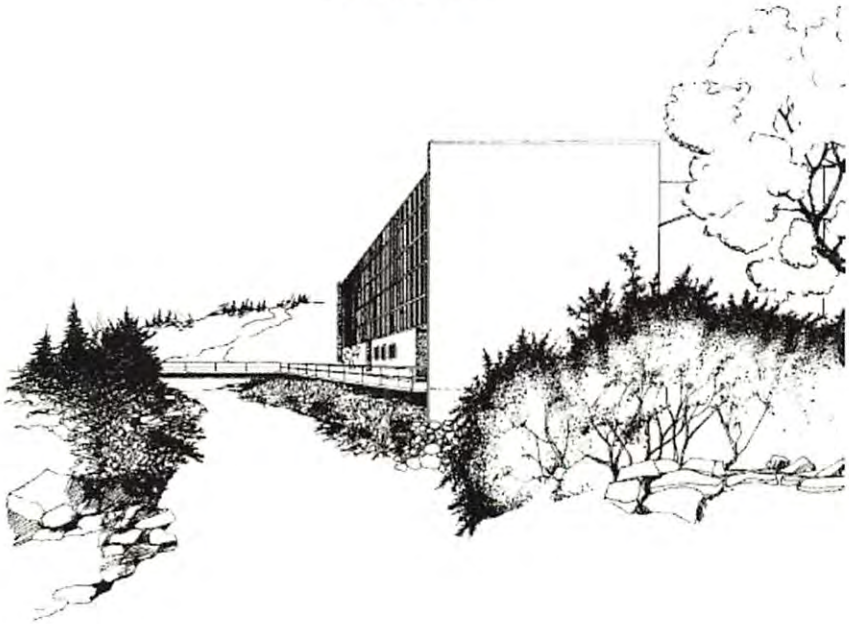
CALIBRATION OF A 10-INCH MAGNETIC FLOW METER

Serial Number 7ME658 1471014061
Mag 5100W

Prepared for

Siemens

February 2011



UTAH WATER RESEARCH LABORATORY

Utah State University
Logan, Utah

Report No. 2373

CALIBRATION OF A 10-INCH MAGNETIC FLOW METER

Serial Number 7ME658 1471014061
Mag 5100W

Submitted to:

Branom Instrument Co.
4090 W State Street, #28
Boise, ID 83703

By:

Steven L. Barfuss, P.E.
Research Associate Professor

and

Zachary B. Sharp
Research Engineer

Utah Water Research Laboratory
8200 Old Main Hill
Logan, UT 84322-8200

February 2011

Hydraulics Report No. 2373

INTRODUCTION

Utah State University was contracted by Siemens to perform a flow calibration at the Utah Water Research Laboratory (UWRL) in Logan, Utah on a 10-inch magnetic flow meter (Serial Number: 7ME6581471014061, Make: Mag 5100W). The meter was tested in straight 10-inch pipe and also downstream of a 90 degree elbow. The cold-water tests were performed to determine the meter's discharge coefficient and flow measurement accuracy over a wide range of flow rates in the two different pipe setups.

EXPERIMENT SETUP

Two separate piping configurations were installed in the laboratory for these tests. The first pipe setup consisted of thirty-eight feet of straight 10-inch pipe upstream of the meter location and seven feet of straight 10-inch pipe downstream of the meter location. In addition, fifteen feet of straight 12-inch pipe was also installed upstream of the 10-inch pipe as part of this test setup. The second pipe setup included a short radius 90-degree, 10-inch horizontal elbow, located upstream of the meter. For this pipe setup, the upstream flange of the meter was installed 30 inches downstream of the elbow flange. Six feet of 10-inch pipe was installed downstream of the meter for the elbow test. The Siemens meter was tested in each of the two piping configurations (see Figures 1 and 2).

FLOW COEFFICIENT

The coefficient C for this meter calibration was calculated using the following equation:

$$C = \frac{Q_i}{Q_a}$$

in which Q_i is the indicated flow rate from the magnetic flow meter in gallons per minute and Q_a is the actual laboratory reference flow rate in gallons per minute. A C value of 1.0 would indicate that the magnetic flow meter had a 0% deviation from the reference laboratory flow rate.

Figure 1 – Straight Pipe Test Setup (flow goes left to right)

Figure 2 –Elbow Test Setup (flow goes left to right)

PROCEDURE

Water was supplied to each test line from a reservoir near the hydraulics laboratory. The reference flow rate from the laboratory weight tanks and the indicated flow rate from the Siemens magnetic flow meter were measured for each run. The water temperature was also measured.

All reference flow measurements were made using the laboratory weight tanks. The weight tanks are regularly calibrated and are traceable to the National Institute of Standards and Technology. Discharge during the test was controlled using a 12-inch butterfly valve downstream of each test section.

A Fluke volt/amp meter was used to average the frequency signal coming from the Siemens magnetic meter. The full scale for the meter was set at 5000 gpm.

Measurements were immediately fed into a computer to display deviations in test results before any flow change was made. Five different target flow rates were tested during the straight meter test series. Fifteen different target flow rates were tested during the elbow test series. Several data points were also repeated to validate the original elbow test data.

RESULTS

Table 1 summarizes the test results for the Siemens meter calibration when it was tested in straight pipe. Table 2 summarizes the test results for the Siemens meter calibration when it was installed 30 inches downstream of the short radius elbow.

Figure 3 is a plot of pipe velocity versus the percent deviation of flow rate for the Siemens meter tests. The legend in figure 3 has been annotated to describe the specific testing configurations as shown in the tables.

Table 1. Utah Water Research Laboratory Flow Meter Calibration Data

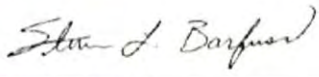
Manufacturer:	Siemens	Throat Diameter (in.) =	10.020
Calibration Date:	2/24/2011	Beta Ratio (d/D) =	1.00
Calibration Location:	12 North	Inlet Diameter (in.) =	10.020
		Nominal Pipe Dia. =	10-inch
Meter Serial Number:	7ME658 1471014061	Pipe Diameter (in.) =	10.020
Make:	Mag 5100W	Pipe Area (ft^2) =	0.548
		Water Temp. (F) =	38.8
Pipe Setup	Straight Pipe Test	Unit Weight (lb/ft^3) =	62.43
Upstream:	38 feet of Straight Pipe	Kin. Visc. (ft^2/s) =	1.698E-05
Downstream:	7 feet of Straight Pipe	Vapor Pres. (psia) =	0.116

Calibration Performed by: Zac Sharp
Calibration Witnessed by: Dennis Rainey, Korbin Knowles

Run No.	UWRL Flow (gpm)	Indicated Flow (gpm)	Inlet Reynolds Number	C UWRL Flow / Ind. Flow	Dev from mean C (%)	Dev of Flow (%)
1	2	3	4	5	6	7
This Data was taken using the Frequency output (Straight)						
1	242.4	242.60	48,488	0.9992	-0.45%	0.085%
2	992.9	987.30	198,621	1.0057	0.20%	-0.565%
3	1995.2	1986.00	399,111	1.0046	0.10%	-0.459%
4	2982.3	2968.50	596,581	1.0047	0.10%	-0.464%
5	3951.5	3935.00	790,455	1.0042	0.05%	-0.418%

Certified by: Avg. coefficient : **1.0037** Avg. Deviation: **-0.364%**
Std. deviation : **0.0026**

Certified by:



Steven L. Barfuss
Research Associate Professor

Table 2. Utah Water Research Laboratory Flow Meter Calibration Data

Manufacturer:	Siemens	Throat Diameter (in.) =	10.020
Calibration Date:	3/1/2011	Beta Ratio (d/D) =	1.00
Calibration Location:	12 North	Inlet Diameter (in.) =	10.020
		Nominal Pipe Dia. =	10-inch
Meter Serial Number:	7ME658 1471014061	Pipe Diameter (in.) =	10.020
Make:	Mag 5100W	Pipe Area (ft2) =	0.548
		Water Temp. (F) =	38.8
Pipe Setup	Elbow Test	Unit Weight (lb/ft3) =	62.43
Upstream:	30 inches of Straight Pipe	Kin. Visc. (ft2/s) =	1.698E-05
Downstream:	6 feet of Straight Pipe	Vapor Pres. (psia) =	0.116

Calibration Performed by: Zac Sharp
Calibration Witnessed by: Dennis Rainey, Korbin Knowles

Run No.	UWRL Flow (gpm)	Indicated Flow (gpm)	Inlet Reynolds Number	C UWRL Flow Ind. Flow	Dev from mean C (%)	Dev of Flow (%)
1	2	3	4	5	6	7
This Data was taken using the Frequency output (Elbow 1 on Chart)						
1	123.2	125.35	24,637	0.9826	-1.55%	1.775%
2	415.8	417.60	83,167	0.9956	-0.24%	0.444%
2R	430.4	432.75	86,098	0.9946	-0.34%	0.544%
3	715.5	716.50	143,133	0.9986	0.06%	0.136%
4	1005.9	1007.00	201,209	0.9989	0.09%	0.114%
5	1310.7	1313.00	262,191	0.9982	0.03%	0.176%
6	1590.4	1592.50	318,138	0.9987	0.07%	0.133%
7	1882.3	1885.00	376,530	0.9986	0.06%	0.144%
8	2179.2	2182.00	435,930	0.9987	0.07%	0.127%
9	2466.8	2468.50	493,459	0.9993	0.13%	0.068%
10	2777.4	2780.50	555,591	0.9989	0.09%	0.111%
11	3055.7	3057.50	611,251	0.9994	0.14%	0.060%
12	3359.1	3358.50	671,944	1.0002	0.22%	-0.017%
13	3656.7	3656.50	731,487	1.0001	0.21%	-0.006%
14	3947.9	3947.50	789,736	1.0001	0.21%	-0.010%
15	4932.9	4931.50	986,774	1.0003	0.23%	-0.029%
This Data was taken using the Frequency output (Elbow 2 on Chart)						
1	442.3	444.20	88,483	0.9958	-0.22%	0.423%
2	1010.9	1010.50	202,216	1.0004	0.24%	-0.038%
3	2007.4	2011.00	401,556	0.9982	0.02%	0.180%
4	2980.9	2981.50	596,293	0.9998	0.18%	0.021%
5	3965.9	3964.50	793,331	1.0003	0.24%	-0.035%
This Data was taken using the Frequency output (Elbow 3 on Chart)						
1	415.0	417.40	83,017	0.9943	-0.37%	0.578%
2	1016.6	1017.00	203,367	0.9996	0.16%	0.036%
3	1998.0	2001.00	399,686	0.9985	0.05%	0.148%
4	2955.0	2957.50	591,115	0.9992	0.12%	0.085%
5	3960.1	3963.50	792,181	0.9992	0.12%	0.085%
		Avg. coefficient :	**0.9980**	Avg. Deviation:	**0.202%**	
		Std. deviation :	**0.0036**			

Certified by:

Steven L. Barfuss
Research Associate Professor

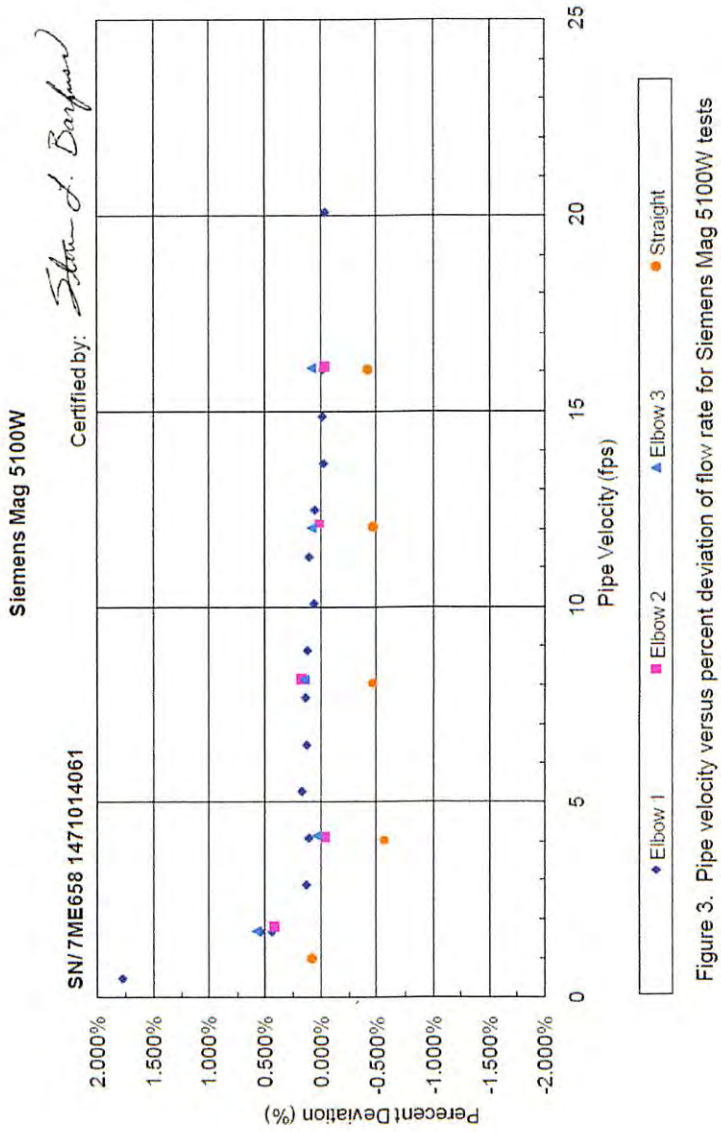


Figure 3. Pipe velocity versus percent deviation of flow rate for Siemens Mag 5100W tests

Appendix I– Groundwater Flow Modeling Report Supporting Banking Depreciation

Dale C. Bugenig, Consulting Hydrogeologist, LLC

Memo

To: Diamond Valley Groundwater Management Plan Advisory Board

From: Dale Bugenig

CC: Jake Tibbitts, Eureka County Natural Resource Manager

Date: May 30, 2017

Re: Diamond Valley Groundwater Management Plan - Analysis of water banking depreciation

The ability to "bank" the unused portion of an Annual Groundwater Allocation is an essential part of the Diamond Valley Groundwater Management Plan (Plan). Water banking, or saving un-pumped groundwater for use in a subsequent year or years, is a type of aquifer storage of recovery (ASR) program regulated by the Nevada State Engineer (NSE). The NSE requires proponents of ASR projects to determine what portion of the water banked can be captured at a later date. This is commonly referred to as efficiency and the amount of water banked that becomes unavailable for future use is sometimes referred to as "depreciation." In the case of Diamond Valley, it is postulated that a portion of the banked water might be lost due to evapotranspiration by phreatophytes or via groundwater discharge in northern Diamond Valley where natural groundwater discharge takes place. A preliminary analysis of banking 10 per cent of the Annual Groundwater Allocation for the first 10 years of the Plan showed negligible change in water levels in phreatophyte area and it was deduced banking in southern Diamond Valley would be very efficient, *i.e.*, depreciation would be small (Bugenig, 2017). However, the NSE requires ASR efficiency or depreciation to be analyzed through the use of a numerical groundwater model.

For Diamond Valley, Rick Felling (Nevada Division of Water Resources Deputy Administrator) agreed with Plan proponents that the groundwater flow model used in support of groundwater appropriations for the Mount Hope Project (Montgomery & Associates, *et al.*, 2010) was applicable to this purpose. The model incorporated all of Diamond Valley, Kobeh Valley, Antelope Valley, and southern Pine Valley, including Garden Valley. Figure 1 shows the Mt Hope model study area. The model simulated historical groundwater withdrawals in Diamond Valley until year 2006 in detail, and incorporated natural groundwater discharge in Diamond Valley from phreatophytes and springs on the valley floor, and was used to predict future groundwater levels in Diamond Valley. Because the transient model was judged by the NSE to be well calibrated for the period 1956 to 2006, especially in Diamond Valley where data were plentiful, it seemed an appropriate tool to analyze the depreciation of banked water.

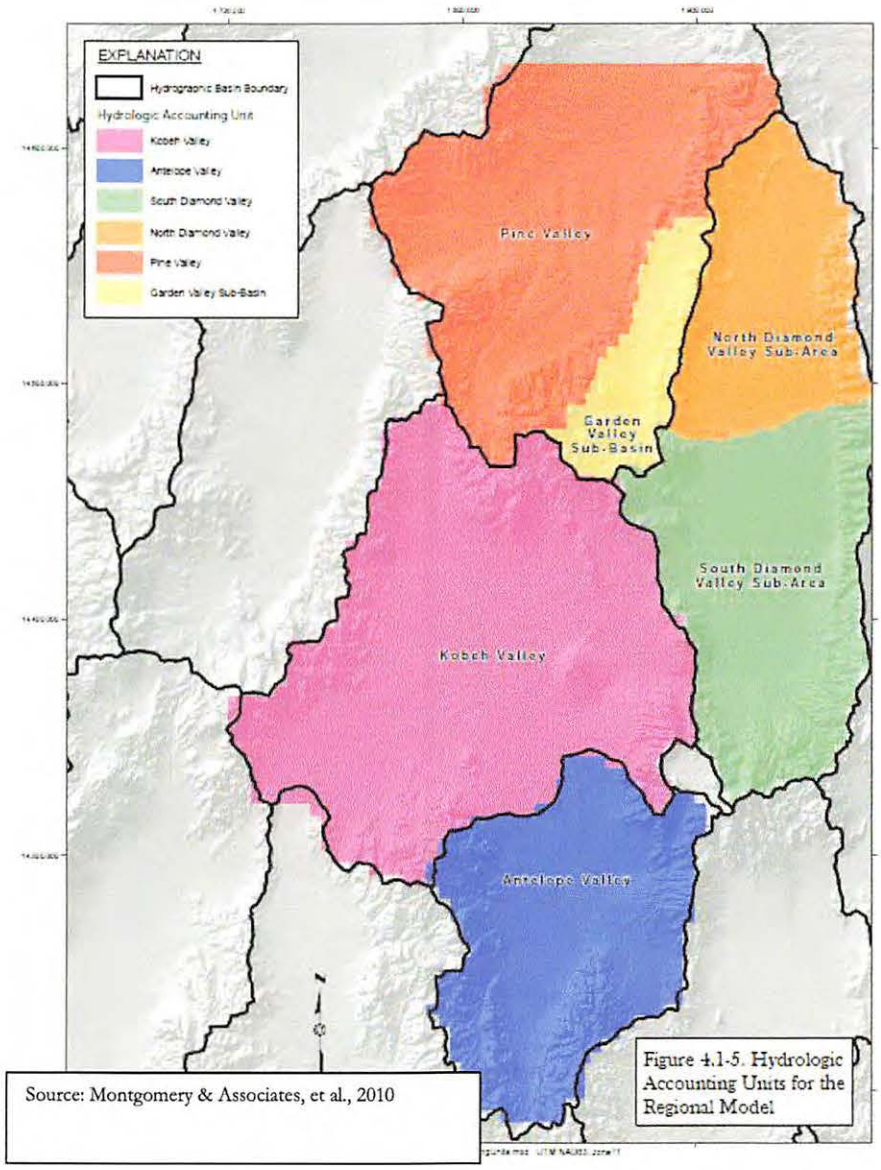


Figure 1. Mt Hope Model Study Area

Note that Diamond Valley was subdivided in the Mt Hope model into North Diamond Valley and South Diamond Valley Sub-areas. The line of demarcation is roughly aligned with the Pony Express road and extends to the topographic divides east and west of Diamond Valley. The road roughly coincides with the southern extent of the phreatophyte area as described by Eakin (Reconnaissance Series Report 6, Plate 1; 1962). Harrill (Water Resources Bulletin No. 35, 1968) coined the terms North and South Diamond Subareas to distinguish the discharge area in the north from the southern portion of the basin where the vast majority of irrigation pumping takes place. The sub-area boundary is shown in Figure 2.

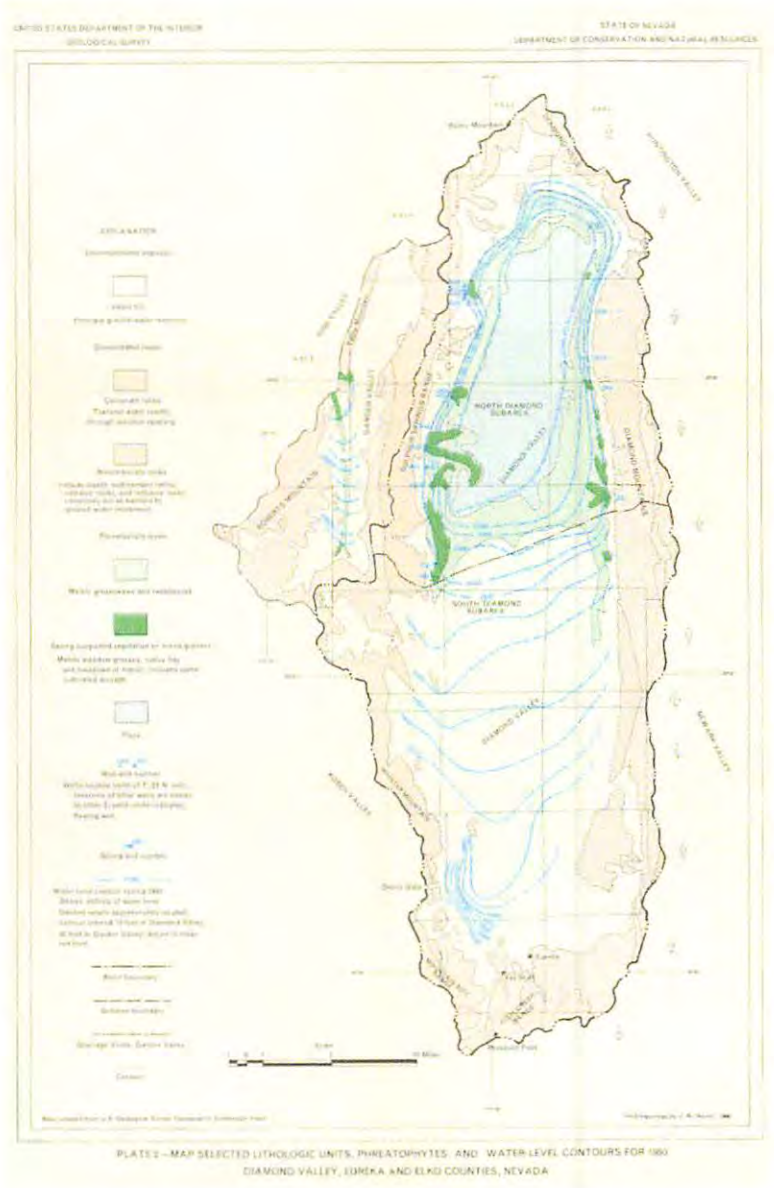


PLATE 2.—MAP SELECTED LITHOLOGIC UNITS, PHREATOPHYTES, AND WATER-LEVEL CONTOURS FOR 1980, DIAMOND VALLEY, EUREKA AND ELKO COUNTIES, NEVADA

The specific version of the Mt Hope model used to analyze banking depreciations was the "No Action Scenario," which did not include pumping by the Mt Hope Project and was used to predict future drawdown in Diamond Valley. Limited changes were made to the model for the depreciation analysis and involved adding best estimates of irrigation pumping rates in Diamond Valley since the last year of the original transient model (the year 2006) through the year 2017. Irrigation pumping since 2006 was based on Crop Inventories by the office of the NSE through 2015 and pumpage in the model was adjusted to account for consumptive use. For 2016 and 2017, irrigation is believed to have increased to 76,000 acre-feet per year (Jake Tibbitts, personal communication). Because not all the water applied as irrigation is consumed, the model assumed a consumptive use of 64,600 acre-feet per year, based on net irrigation requirements of alfalfa and grass hay. The model was also updated to include included irrigation pumping in northern Diamond Valley which was not simulated in the original Mt Hope model No Action Scenario. Irrigation pumping in the North Diamond Subarea is relatively small compared to the

South Diamond Subarea and is limited to wells Diamond Springs Ranch (Renner), the Sadler Ranch, Bailey Ranch, Romano Ranch and Venturacci Ranch.

In addition to water banking, another key feature of the Plan is a planned step-wise reduction in groundwater withdrawals until the consumptive use of groundwater pumped for irrigation reaches the estimated perennial yield of Diamond Valley (30,000 acre-feet per year) currently accepted by the NSE. Assuming the Plan is implemented in the year 2018, scheduled reductions in pumping are shown in Table 1, below. Under the Plan, the goal of reducing irrigation pumping to the perennial yield of the basin is essentially reached in the year 2053.

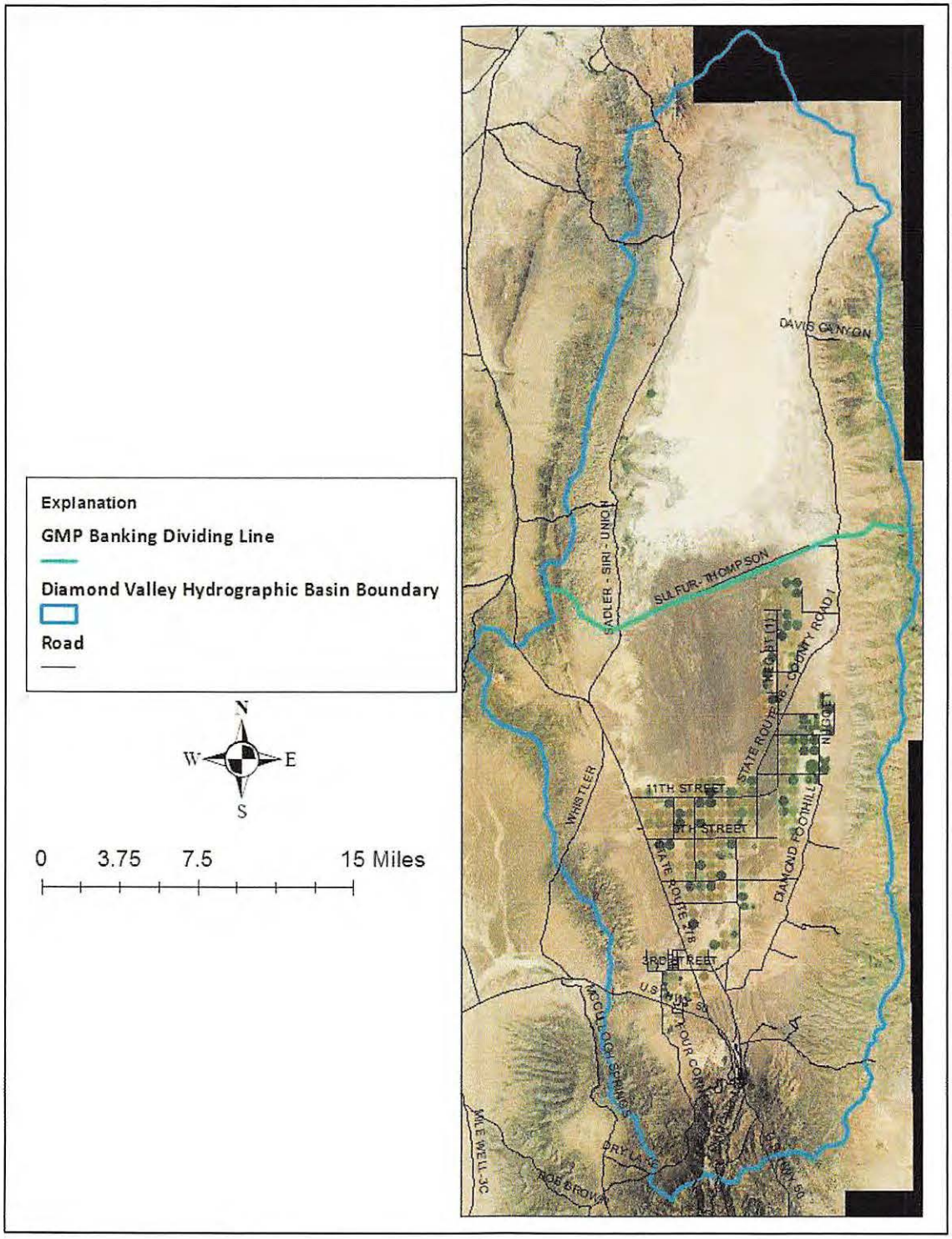
Table 1.
Irrigation Pumping Reduction under the Diamond Valley Groundwater Management Plan (Consumptive Use Portion)

Year	Model Stress Period	Irrigation Consumptive Use (AF/yr)
2018	64	63399.20
2019	65	62152.80
2020	66	60192.00
2020~	66	60192.00
2021	67	57494.00
2022	68	55328.00
2023	69	53838.40
2024	70	51740.80
2025	71	50342.40
2026	72	48944.00
2027	73	48244.80
2028	74	47545.60
2029	75	46846.40
2030	76	46147.20
2031	77	45448.00
2032	78	44748.80
2033	79	44049.60
2034	80	43350.40
2035	81	42651.20
2036	82	41952.00
2037	83	41252.80
2038	84	40553.60
2039	85	39854.40
2040	86	39155.20
2041	87	38456.00
2042	88	37756.80
2043	89	37057.60
2044	90	36358.40
2045	91	35659.20
2046	92	34960.00

2047	93	34260.80
2048	94	33561.60
2049	95	32862.40
2050	96	32163.20
2051	97	31464.00
2052	98	30764.80
2053	99	30065.60
2054	100	30065.60
2055	101	30065.60
2056	102	30065.60
2057	103	30065.60

The depreciation analysis assumed that 10 percent of the consumptive use portion of the Annual Groundwater Allotment in the schedule above was not pumped (banked) for the first 10 years of the plan. Pumping then resumed at the rates in the schedule. The exception was pumping of current "mitigation rights" at the Sadler, Bailey and Venturacci ranches. These are exempt under the Plan and pumping was assumed to continue at the rates presently allowed by the NSE. For the South Diamond Subarea as a whole, the model calculated an annual depreciation of approximately 0.3 percent per year. For the North Diamond Subarea, annual depreciation was much higher, approximately 17 percent per year. The principal reason for the difference is wells in the North Diamond Subarea are close to discharge areas. Water not pumped in these areas is lost to phreatophyte ET.

Figure of Banking Dividing Line



Hearing File

BRIAN SANDOVAL
Governor

STATE OF NEVADA

BRADLEY CROWELL
Director

JASON KING, P.E.
State Engineer

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES
901 South Stewart Street, Suite 2002
Carson City, Nevada 89701-5250
(775) 684-2800 • Fax (775) 684-2811
http://water.nv.gov

NOTICE OF HEARING

October 1, 2018

Eureka County Board of Commissioners
P.O. Box 694
Eureka, NV 89316
Certified Mail
9214 7969 0099 9790 1623 8283 92

White Pine County Board of Commissioners
801 Clark Street
Ely, NV 89301
Certified Mail
9214 7969 0099 9790 1623 8285 07

Elko County Board of Commissioners
540 Court Street, Suite 140
Elko, NV 89801
Certified Mail
9214 7969 0099 9790 1623 8284 91

Ladies and Gentlemen:

The State Engineer has begun the public hearing process on a proposed groundwater management plan setting forth the steps to remove the critical management area designation for the Diamond Valley Hydrographic Basin (153). Accordingly, the hearing will convene promptly at **10:00 a.m., Tuesday, October 30, 2018, at the Eureka Opera House Auditorium, 31 South Main Street, Eureka, Nevada.** A copy of the petition and the proposed plan may be viewed at *http://water.nv.gov* or by contacting the Nevada Division of Water Resources. Written comments will also be accepted until the conclusion of the hearing.

We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the hearing. If special arrangements for the hearing are necessary, please notify this office in writing at the above address or by calling (775) 684-2800 as soon as possible.

If you have any questions, please feel free to contact the undersigned at (775) 684-2882.

Sincerely,

Kristen Geddes
Hearings Officer

KG/jm
cc: Division of Water Resources, E-mail
Sam Monteleone, E-mail
Thomas K. Gallagher, P.E., E-mail
Capitol Reporters, E-mail

SE 'S EXHIBITS 3
DATE: 10-30-2018

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Eureka County
Board of Commissioners
P.O. Box 694
Eureka, NV 89316

9290 9969 0099 9723 8284 08

2. Article Number *(Transfer from service label)*
9214 7969 0099 9790 1623 8283 92

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X J Berg ☑ Agent ☐ Addressee

B. Received by *(Printed Name)* ~~TODD~~ J BERG
C. Date of Delivery 10-04-18

D. Is delivery address different from item 1? ☐ Yes
If YES enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, April 2015 PSN 7530-02-000-9053 **Domestic Return Receipt**

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

White Pine County
Board of Commissioners
801 Clark Street
Ely, NV 89301

9290 9969 0099 9723 8285 14

2. Article Number *(Transfer from service label)*
9214 7969 0099 9790 1623 8285 07

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Debbie Underwood ☐ Agent ☑ Addressee

B. Received by *(Printed Name)* Debbie Underwood
C. Date of Delivery 10/3/18

D. Is delivery address different from item 1? ☐ Yes
If YES enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, April 2015 PSN 7530-02-000-9053 **Domestic Return Receipt**

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Elko County
Board of Commissioners
540 Court Street, Suite 140
Elko, NV 89801

9290 9969 0099 9723 8285 07

2. Article Number *(Transfer from service label)*
9214 7969 0099 9790 1623 8284 91

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)*
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, April 2015 PSN 7530-02-000-9053 **Domestic Return Receipt**

Lisa Sheppard

From: Malcolm Wilson
Sent: Thursday, September 27, 2018 10:13 AM
To: Lisa Sheppard
Cc: Jason King; Adam Sullivan; Kristen Geddes
Subject: Publication of Notice of Hearing (Diamond Valley Groundwater Management Plan)
Attachments: Hearing Notice Paper Publication--Diamond Valley (153) GMP Hearing.docx

Lisa,

Please have the attached notice published once per week for the weeks of October 15 and October 22, 2018, in the newspapers for Eureka, Elko, and White Pine Counties.

Respectfully,

Malcolm J. Wilson, P.E., C.P.M.
Supervisor Professional Engineer
Hearings Section

Lisa Sheppard

From: Lisa Sheppard
Sent: Thursday, September 27, 2018 10:31 AM
To: 'elytimes.linda@gmail.com'
Cc: Lisa Sheppard
Subject: Public Notice of Hearing
Attachments: Public Notice of Hearing.docx

Eureka Sentinel – Eureka,

Attached is a copy of Public Notice of Hearing. Please publish this notice in the legal section of your newspaper **once per week for two weeks of October 15 and October 22, 2018**. Please forward a notice of first publication and an affidavit of publication after the notice has been published, along with your billing. Please confirm receipt of this message and publication dates at your earliest convenience.

Thanks,
Lisa Sheppard
Administrative Assistant II
Division of Water Resources
901 S. Stewart Street, Suite 2002
Carson City, NV 89701
(775) 684-2838
lsheppard@water.nv.gov

Lisa Sheppard

From: Lisa Sheppard
Sent: Thursday, September 27, 2018 10:33 AM
To: 'legals@elkodaily.com'
Cc: Lisa Sheppard
Subject: Public Notice of Hearing
Attachments: Public Notice of Hearing.docx

Elko Daily Free Press – Elko,

Attached is a copy of Public Notice of Hearing. Please publish this notice in the legal section of your newspaper **once per week for two weeks of October 15 and October 22, 2018.** Please forward a notice of first publication and an affidavit of publication after the notice has been published, along with your billing. Please confirm receipt of this message and publication dates at your earliest convenience.

Thanks,
Lisa Sheppard
Administrative Assistant II
Division of Water Resources
901 S. Stewart Street, Suite 2002
Carson City, NV 89701
(775) 684-2838
lsheppard@water.nv.gov

Lisa Sheppard

From: Lisa Sheppard
Sent: Thursday, September 27, 2018 10:29 AM
To: 'elytimes.linda@gmail.com'
Cc: Lisa Sheppard
Subject: Public Notice of Hearing
Attachments: Public Notice of Hearing.docx

Ely Times – White Pine,

Attached is a copy of Public Notice of Hearing. Please publish this notice in the legal section of your newspaper once per week for two weeks of October 15 and October 22, 2018. Please forward a notice of first publication and an affidavit of publication after the notice has been published, along with your billing. Please confirm receipt of this message and publication dates at your earliest convenience.

Thanks,
Lisa Sheppard
Administrative Assistant II
Division of Water Resources
901 S. Stewart Street, Suite 2002
Carson City, NV 89701
(775) 684-2838
lsheppard@water.nv.gov

PUBLIC NOTICE OF HEARING

NOTICE OF HEARING ON PETITION TO APPROVE A GROUNDWATER MANAGEMENT PLAN WITHIN THE DESIGNATED DIAMOND VALLEY HYDROGRAPHIC BASIN (153), WITHIN EUREKA, ELKO AND WHITE PINE COUNTIES, NEVADA

Under the provisions of NRS 534.037, the State Engineer will hold a public hearing to receive testimony on a proposed groundwater management plan setting forth the steps to remove the critical management area designation for the Diamond Valley Hydrographic Basin 153. A copy of the petition and the proposed plan may be viewed at http://water.nv.gov or by contacting the Nevada Division of Water Resources. The public hearing will be held 10:00 a.m., Tuesday, October 30, 2018, at the Eureka Opera House Auditorium, 31 South Main Street, Eureka, Nevada. Written comments will also be accepted until the conclusion of the hearing. We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the hearing. If special arrangements for the hearing are necessary, please write the Nevada Division of Water Resources at 901 S. Stewart Street, Suite 2002, Carson City, Nevada, 89701, or call (775) 684-2800.

JASON KING, P.E.
State Engineer

Diamond Valley GMP Public Comments

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4	Burnham, Robert	1
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Written Comments for GMP Hearing
October 30, 2018
Bailey Ranch, Diamond Valley, Nevada

The Bailey Ranch has been in operation in Diamond Valley since 1863. Current laws protect the viability of our heritage. When laws were not enforced, our ranch was harmed by the drawdown of the water table. The water that naturally flowed from springs was devastated. The springs, ponds, meadows and harvest that our family, livestock, wildlife and plant communities relied on was severely affected. We are left to mitigate this damage at an intrinsic expense that goes beyond our pocketbook.

We support efforts to create a Groundwater Management Plan (GMP) that is environmentally sound and would not further impair our ranch vested water rights and help the agricultural sector. The only water rights included in the GMP are agricultural water rights. The GMP needs more than a modest revision.

The way this plan has been proposed has had a chilling effect on the Bailey family and those with whom it would be applied. The option given was to sign on to this plan or be curtailed. One agreement between Eureka Moly and Eureka Producers' Co-op, dated August 18th, 2010, required Eureka Producers' Co-op not to participate in any manner, directly or indirectly to interfere with Eureka Moly's plans to secure water and place Mt. Hope into operation and further to persuade any other protestants to settle any appeals to water requirements. A settlement between Eureka County, Diamond Natural Resources Protection and Conservation Association and the Moly Mine dated September 12th, 2018, states that Moly shall not assist any party, financially or otherwise, that opposes or is adversarial to approval or implementation of the GMP. These and other settlements with individual ranchers and farmers have interfered with the ability of stakeholders to speak out.

This plan could profoundly change the demographics of Diamond Valley and in effect do the opposite of what the stated goals in the plan represent. Walker and Associates, including Michael Young, were hired to facilitate this process and are experts at changing demographics of natural resources for the benefit of their clients.

Issues regarding "non consumptive use," phreatophytes, transparency, board structure and weighted voting, are some of our concerns. Giving shares to abandon water and banking shares adds to the future demand on the aquifer. Water bank balances could quickly exceed available resources. There is no contingency plan for large withdrawals in the future. Out of basin transfers would not help our basins' sustainability.

Vested and mitigation water should be managed under NRS 533 laws. Baileys have seven generations on the Bailey Ranch and a century and a half of continuous operation. This represents a century prior to the farms considered for management under the GMP plan. The Bailey family also owns farms in Diamond Valley, and we recognize the need for and do not oppose implementation of a GMP plan that would protect agriculture for future generations.

The Bailey Ranch asks the State Engineer to revise the GMP or consider alternatives.

Carolyn Bailey

Written Comments for GMP Hearing (Revised 11-02-18)
October 30, 2018
Bailey Ranch, Diamond Valley, Nevada

The Bailey Ranch has been in operation in Diamond Valley since 1863. Current laws protect the viability of our heritage. When laws were not enforced, our ranch was harmed by the drawdown of the water table. The water that naturally flowed from springs was devastated. The springs, ponds, meadows and harvest that our family, livestock, wildlife and plant communities relied on was severely affected. We are left to mitigate this damage at an intrinsic expense that goes beyond our pocketbook.

We support efforts to create a Groundwater Management Plan (GMP) that is environmentally sound and would not further impair our ranch vested water rights and help the agricultural sector. The only water rights included in the GMP are agricultural water rights. The GMP needs more than a modest revision.

The way this plan has been proposed has had a chilling effect on the Bailey family and those with whom it would be applied. One agreement between Eureka Moly and Eureka Producers' Co-op, dated August 18th, 2010, required Eureka Producers' Co-op members not to participate in any manner, directly or indirectly that would interfere with Eureka Moly's plans to secure water and place Mt. Hope Mine into operation, and further to persuade any other protestants to settle any appeals to water requirements. A settlement between Eureka County, Diamond Natural Resources Protection and Conservation Association and the Moly Mine dated September 12th, 2018, states that Moly shall not assist any party, financially or otherwise, that opposes or is adversarial to approval or implementation of the GMP. These and other settlements with individual ranchers and farmers have interfered with the ability of stakeholders to speak out.

The only two options given farmers were to sign on to this plan or be curtailed. Fear and anger were stirred to set neighbor against neighbor, especially to promote devaluing the handful of vested water rights ranchers perceived to be standing in the way. Following abandonment laws, especially before any plan is considered, would not harm current users, help alleviate over appropriation, and make an even playing field. Our small farm would be drastically cut the first year of this GMP, while other farmers state they will not be affected for the entire 35 year plan because they have extra abandon water on paper, or stacked water rights.

Unrestricted share banking, especially of abandon water, is against anti-speculation laws and can create water barons. Yearly share allotments represent a huge financial percentage gain on an investment if sold on the market. If shares were required to be used yearly, the answer would be to pipe the extra water to Las Vegas. There is no extra water. It is a paper shell game. Giving shares to abandon water and banking shares adds to the future demand on the aquifer. Unrestricted water bank balances could quickly exceed available resources. There is no contingency plan for large withdrawals in the future. Out of basin transfers should never be allowed under the plan to avoid speculation.

This plan could profoundly change the demographics of Diamond Valley and in effect do the opposite of the GMP's stated goals. Walker and Associates, including Michael Young, were hired to facilitate this process, and are experts at changing demographics around natural resource extraction for the benefit of their clients. Using a tier system with food production at the bottom and that does not include the environment at all, and unbundling environmental services required for life from the land, would create areas devoid of life like cancer on the earth.

Issues regarding "non consumptive use" and temporary use being touted as having no affect, phreatophytes being destroyed, transparency for stakeholders, board structure removing agricultural seats and voting being weighted by number of shares owned, are additional concerns.

Vested and mitigation water should be managed under NRS 533 laws. Baileys have seven generations on the Bailey Ranch and a century and a half of continuous operation. This represents a century prior to the farms considered for management under the GMP plan. The Bailey family also owns farms in Diamond Valley, and we recognize the need for and do not oppose implementation of a GMP plan that would protect agriculture for future generations.

The Bailey Ranch asks the State Engineer to revise the GMP or consider alternatives.

Carolyn Bailey

This document is submitted at the hearing of the Ground Water Management Plan held in Eureka, Nevada, on October 30, 2018.

I am Timothy Lee Bailey, representing Timothy Lee and Constance Marie Bailey and our irrigation water rights in Diamond Valley. We are opposed to the Ground Water Management Plan.

Prior appropriation does not allow for a junior water right to harm a senior water right. Water table level, mainly the drawdown of the water table level in Diamond Valley needs to be taken into account. No senior water right should be harmed by any junior water right.

I have arrived at this decision because I have read the numerous water resource bulletins, the state water engineer orders, rulings and testimonies, and the judicial orders, rulings, opinions, testimonies, and court transcripts that pertain to water in Diamond Valley Hydrographic Basin 10-153.

If the state water engineer is going to sign this document I strongly urge you to read these documents pertaining to water in Diamond Valley Hydrographic Basin 10-153 in chronological order before signing:

- Water Resource Bulletins
- State Water Engineer orders
- State Water Engineer rulings
- State Water Engineer testimonies
- Judicial orders
- Judicial rulings
- Judicial opinions
- Testimonies
- Court transcripts
- Hearing transcripts

Hereby signed

Timothy Lee Bailey

Timothy Lee Bailey

Constance Marie Bailey

Constance Marie Bailey

Date

October 30, 2018

Oct 30, 2018

To: Mr. Jason King and Staff Nevada Division of Water Resources

From: Robert E. Burnham

Mr. King

I would like to take this opportunity to support the implementation of the Diamond Valley Ground Water Management Plan. I and many others have worked very hard to develop this proposal, which if implemented can ensure a successful and prosperous future for the local agricultural community as well as be an example for the state of Nevada and indeed the western U.S. of what is possible for maximizing the agricultural potential of finite water supplies.

In the last year I have sold my family farm after living here for 42 years. My father first invested in Diamond Valley nearly 60 years ago. Although I no longer have a financial stake in the valley, I care deeply about the future of this community and its agricultural base. This process was the right thing to do when we started it several I years ago and it is still the right thing to do.

The GMP is an opportunity for this state, the driest in the nation, to be at the forefront of resource conservation and to show what is possible for modern agriculture in terms of efficiency and water management. The days of needing an acre foot of water to grow a ton of hay are a thing of the past and we all need to move forward to a more productive future.

I , like many others here have dedicated our lives to making this valley an economic success and a cornerstone of this community for more than a half century. This GMP program is the best way to ensure that the success story continues for many generations to come. If decades from now, the children and grandchildren of the families that bought my farm are still farming that will be a wonderful legacy not just for me but for the community, the Division of Water Resources, and the State of Nevada. The GMP is the single best tool to preserve that legacy and indeed the legacy of all those who have worked so hard to build this community. It is also an opportunity to make Nevada a leader in preserving irrigated agriculture in the West.

Sincerely

Bob Burnham

Testimony for the Hearing on a Petition to Approve a GMP in Diamond Valley, 10-30-18

Hello, my name is Russell Conley and I am an irrigator in Diamond Valley and am also a member of the Advisory Board that helped develop this Groundwater Management Plan. As you know, Diamond Valley is mostly comprised of family farming operations. We enjoy a rural way of life, good schools, strong community, and the ability to make a modest living on the ground we own. Our local climate enables us to produce very high quality hay and forage, and good farmers have a chance to make a decent living for their families.

My family's operation is similar to many others in the valley. We currently raise hay, cattle, and 3 children. The farming portion of our operation is completely reliant upon groundwater, and our water rights have been in effect since early 1961. Even though these rights have been active over the last 57 years, they are still considered to be "junior" and would be amongst those curtailed if the State Engineer was forced to curtail based on priority.

As we have heard, not all people agree with the development of a local groundwater management plan. Some believe that the prior appropriation doctrine should be strictly adhered to. I believe that it was the failure to follow this doctrine from the beginning that allowed the over allocation of this precious resource by over 3 times the perennial yield. Now we are in this situation where people have worked hard to develop their land, raise their families, and have established roots here. The people in this basin have created a great agricultural area that has grown to be a large part of the community.

Many of the irrigators in the basin have come together to develop this groundwater management plan. While the plan may not be perfect in everyone's eyes, most of the irrigators agree that it is a workable solution that would bring our basin back into balance. In addition, it would enable most of the agricultural community to stay intact. I believe approving this Groundwater Management Plan would be the best solution for the resource as well as the community that relies so much upon it.

Point 1

How do we protect the domestic well holder from the effects of an additional 35 years over pumping?

Point 2

University of Denver water law review January 18th 2018

One significant legal issue in Diamond Valley will be how the water market can address the . This doctrine, codified under Nevada Revised Statute 533.040, expressly prohibits a water right from being transferred to parties who do not beneficially use the water. The anti-speculation doctrine seeks to prevent "hoarding" of water by non-users, which could distort supply for farmers and artificially inflate prices. In a traditional prior appropriation system, beneficial use staves off speculation, but in a water market, many worry that ' ' might stockpile shares to drive up prices, .

Nevada law journal 8 Aug 2008

III. AVOIDING SPECULATION THROUGH THE TRINITY OF BENEFICIAL USE

Beneficial use is the lynchpin of the prior appropriation system, as it is "the basis, measure, and limit" of a water right.64 All western water codes encapsulate the "doctrinal trinity of beneficial use, waste, and forfeiture."65 Many western state constitutions explicitly include the term "beneficial use."66 The definition of beneficial use is similar among prior appropriation jurisdictions, and it typically includes just about any domestic, agricultural, or industrial activity, including sewage treatment, crop production, stock watering, hydroelectric power generation, mining, and recreational pursuits. It does not, however, extend to speculative water uses.

How can we protect the intent and purpose of the anti speculation doctrine while allowing an unrestricted bank.

Point 3

How do we uphold the priority system if my small family farm will be unable to raise an alfalfa crop after year 2 without getting water from some other source?

Point 4

CMA is "withdrawals of groundwater consistently exceed the perennial yield of the basin"

Plan must remove CMA designation

GMP Section 2:

the perennial yield recognized by the State Engineer is 30,000 acre-feet per year

Sub mark 2

This perennial yield is based on Harrill (1968). The recent 2016 U.S. Geological Survey Scientific Investigations Report on the Diamond Valley Flow System (Berger et al. 2016) defines the pre-development groundwater discharge, often used by the State Engineer to establish perennial yield, to be 35,000 acre-feet annually.

13.12

Diamond Valley reaching perennial yield are expected to be reached within 35 years

Approximately 120 domestic wells

From Table in gmp with 120 domestic wells added

Commercial	3.79
Domestic Including 120 domestic	273.6
Municipal	1592.06
Quasi-Municipal	570.16
Stockwater	904.19
Total	3343.8

35 Years is 34171.82 AFA From GMP only

Vested rights on preliminary order approximately 5100 AFA

Total Underground not accounted for in plan without vested underground 37515.62

Total Underground Committed at 35 years with vested included is 42615.62

Hydrological within the gmp states on Page308 "another key feature of the Plan is a planned step-wise reduction in groundwater withdrawals until the consumptive use of groundwater pumped for irrigation reaches the estimated perennial yield of Diamond Valley (30,000 acre-feet per year) currently accepted by the NSE."

Mr king, How does this GMP remove the basin from the CMA designation if we account for withdrawals from all sources whether or not they are exempted from the plan?

		Senior Acre	1	Most Senior Junior	0.9522	Junior Acre	0.8	Me	0.9858		
		4	Rolling -2.5	3.8088	Rolling -2.5	3.2	Rolling -2.5	3.9432	rolling-2.5	AFA	Acres
1	0.67	2.68	0.18	2.551896	0.051896	2.144	-0.356	2.641944	0.141944	528.3888	211.3555
2	0.649	2.596	0.276	2.4719112	0.0238072	2.0768	-0.7792	2.5591368	0.2010808	511.8274	204.7309
3	0.629	2.516	0.292	2.3957352	-0.0804576	2.0128	-1.2664	2.4802728	0.1813536	496.0546	198.4218
4	0.603	2.412	0.204	2.2967064	-0.2837512	1.9296	-1.8368	2.3777496	0.0591032	475.5499	190.22
5	0.569	2.276	-0.02	2.1672072	-0.616544	1.8208	-2.516	2.2436808	-0.197216	448.7362	179.4945
6	0.536	2.144	-0.376	2.0415168	-1.0750272	1.7152	-3.3008	2.1135552	-0.5836608	422.711	169.0844
7	0.516	2.064	-0.812	1.9653408	-1.6096864	1.6512	-4.1496	2.0346912	-1.0489696	406.9382	162.7753
8	0.495	1.98	-1.332	1.885356	-2.2243304	1.584	-5.0656	1.951884	-1.5970856	390.3768	156.1507
9	0.482	1.928	-1.904	1.8358416	-2.8884888	1.5424	-6.0232	1.9006224	-2.1964632	380.1245	152.0498
10	0.469	1.876	-2.528	1.7863272	-3.6021616	1.5008	-7.0224	1.8493608	-2.8471024	369.8722	147.9489
15	0.435	1.74	-0.76	1.656828	-0.843172	1.392	-1.108	1.715292	-0.784708	343.0584	137.2234
20	0.402	1.608	-0.892	1.5311376	-0.9688624	1.2864	-1.2136	1.5851664	-0.9148336	317.0333	126.8133
25	0.368	1.472	-1.028	1.4016384	-1.0983616	1.1776	-1.3224	1.4510976	-1.0489024	290.2195	116.0878
30	0.335	1.34	-1.16	1.275948	-1.224052	1.072	-1.428	1.320972	-1.179028	264.1944	105.6778
35	0.301	1.204	-1.296	1.1464488	-1.3535512	0.9632	-1.5368	1.1869032	-1.3130968	237.3806	94.95226

Replant	420	3.23076923	3/7/1960	4766.18 afa	
Steady State	320	2.42424242	end of day	10846.056 afa	6079.876 afa

Here are the talking points I want you to discuss. Make clear you got them from me.

I have served on numerous boards and committees in my lifetime. When we are elected to a position we have a fiduciary and ethical responsibility to represent all the constituents, most importantly the silent minority. This entails reaching out to them and hearing their voice. Simply because someone doesn't come to the general meetings nor seem to participate does not negate our responsibility to represent them.

The important material that the GMP committee is working on falls directly under the executive branch of state government. Whatever decisions are made require the blessing of the Nevada State Engineer. However, I believe the people in the county do not fully realize that the final authority in the GMP is not the executive branch of the government but rather the judicial branch. If all the people are not brought into the discussion, voices heard and accommodated through careful negotiation then there will be litigation against the proposal.

Litigation will result in a judge ultimately protecting and providing relief for the most vulnerable parties. If the junior right holders and/or a majority vote for the GMP without sufficient dialogue and accommodation for the minority, a judge, or ultimately the state supreme court will find for the minority because our system in the US will ultimately always protect the "injured" party.

The defendant in the litigation will be the State Engineer. Trust me, they will not sign onto a plan that they cannot defend. They will allow the people who craft the GMP to create the document but ultimately it will reflect the state engineer's interests because they will be paying for the litigation defense. The State Engineer is required to follow statute. When the statue is murky the courts will be the final authority in interpretation. The people is diamond valley are working in new territory. This will be litigated.

If the people try to ramrod a document against the wishes of some parties the outcome of the litigation will not be favorable.

The time to resolve these issues is now. Every stakeholder in this GMP should agree to the plan to avoid litigation. Now you might say that is impossible, but shrewd negotiation including back channel conversations almost always can lead to compromise.

Our country does not work on a majority rules concept. If a "majority" vote for the GMP and a court decides the minority interests were not protected the plan will be struck down and the judge, who does not know the needs and dynamics of the people in the county, will decide the parameters of the plan. This is almost never good. Judges will rule on the admissible evidence and the outcomes are often determined by the most prepared and articulate attorney.

If the people who write this plan think they can "buy time" to continue to maintain the status quo they will find out that the end result could be adjudicated quicker than expected and end up decreasing the value of their personal farm. Then, the only remaining answer will be for the Juniors to litigate against the State Engineer for allowing an overallocation of shares over the years. I doubt there are many in the valley with sufficient funds to see such litigation through the entire legal process of appeals and they could lose everything.

A supreme court justice of Utah, Dallin H Oaks once reiterated a French proverb that says, "a bad agreement is better that a good lawsuit".

Perhaps the boat has left its mooring and seems too far out to sea to make the necessary adjustments to accommodate all parties; but in my years of experience it is best to pull in the sails, look about, and change trajectory because there is a light ahead and it is not lighting the way forward but rather warning of the rocky shore.

Ty B Erickson, MD FACOG FPMRS

Malcolm Wilson

From: Julie Etcheverry <agland@sbcglobal.net>
Sent: Friday, November 02, 2018 3:05 PM
To: Malcolm Wilson
Subject: Landowner Opinion of Adopting Water Plan

TO: Water Engineer, State of Nevada

FROM: Jim Etcheverry, 3-Bar Ranch, Eureka, NV

Dear Sirs,

I own the 3-Bar Ranch in Kobeh Valley and farmground on pivot in Diamond Valley. Both are adversely impacted by the lowering water levels in Eureka County.

I believe that adopting the water plan is the best option for Eureka; the farmers, the ranchers and the public as a whole.

Jim Etcheverry

To: Nevada Division of Water Resource/Jason King

I am in favor of the Diamond Valley Ground Water Management Plan (GMP).

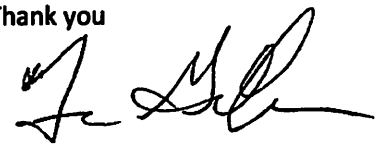
I have spent my childhood living and later working in Diamond Valley in a household that was dependent on farming. After graduating from college and creating a family of my own, I moved back to Diamond Valley where I purchased a farm of my own in hopes of spending the rest of my life doing what I enjoy in a community that I love: farming in Diamond Valley

I have been involved with the creation the GMP since the beginning, over three years ago. I believe that this plan gives the majority of the farmers in Diamond Valley the ability to continue to farm well into the future. Farmers will need to change some of their practices but it will be much better than the alternative, which I believe will be a curtailment by priority which would come at the end of the designation as a Critical Management Area, which is less than six years away (if not sooner by the judge under the Saddler curtailment request).

The farm that I own and the farm that I help manage has a mixture of "junior" and "senior" numbers. Some of the "junior" dates are real close to the cut off point, so I think our farms may survive a curtailment. But the community of Diamond Valley and Eureka would suffer greatly. If the GMP isn't made law and we end up being curtailed by priority, over half of the farms in Diamond Valley would dry up and many people would be forced to leave. This would devastate the community that I moved back to. It would also leave Diamond Valley as a dust, weed, and rodent bowl which would change what the remaining farmers would have to deal with.

For the reasons stated above I am 100% in favor of the Diamond Valley Ground Water Management Plan as written and would encourage the NDWR to accept this plan as written and put into effect in 2019.

Thank you



James Travis Gallagher

T &C Farm

J &T Farm

Gallagher Farms

October 30, 2018

Andrew Goettle
HC62 Box 62143A
Eureka, NV 89316

To Whom It May Concern:

I am writing this letter in regards to the public hearing held today, October 30, 2018, to discuss the proposed Groundwater Management Plan in the Diamond Valley Hydrographic Basin.

I am the lessee of two quarters of center-irrigated farmland in the Diamond Valley. My wife and I, along with our two young children, moved here to make our dream of raising our kids in Smalltown, USA a reality. We made the move after the basin had been designated a critical management area.

As is well known, our basin is in trouble. Over-allocation led to over-pumping, which has resulted in a significant drop in the groundwater static levels. Obviously changes have to be made or there will be no groundwater available, weather it be for domestic, stock, irrigation, mining or other uses.

In my opinion, the needs of the many outweigh the needs of the few, and that is why I believe the Groundwater Management Plan that is being discussed at the public hearing held today should be put into effect to remove the critical management area designation on basin 153.

I believe that this GMP is a much better alternative to strict curtailment by priority. My outlook tells me that the GMP will allow my friends and neighbors to continue farming, keep our hay production economy strong, and continue to keep it viable for the foreseeable future. Strict curtailment by priority, as I see it, will leave the Eureka socioeconomic areas, including the Diamond Valley farming community, a bleak shell of its former self after just a few short years.

Hopefully the residents of this community and the Division of Water Resources can come together and get this GMP put into place. I fully support the Groundwater Management Plan.

Sincerely,

Andrew Goettle

Great Basin Resource Watch

Working with Communities to Protect Their Land, Air, and Water

P.O. Box 207, Reno, NV 89504
775-348-1986, www.gbrw.org

October 30, 2018

State of Nevada
Department of Conservation and Natural Resources
Division of Water Resources
901 S. Stewart St., Suite 2002
Carson City, NV 89701

RE: Great Basin Resource Watch Comments on the Diamond Valley Groundwater Management Plan (DVGMP, to be referred to as the Plan)

My Name is John Hadder. I am the director of Great Basin Resource Watch (GBRW). GBRW is a 24 year old not-for-profit public interest organization. Our mission is "To protect the health and well being of the land, air, water, wildlife, and human communities of the Great Basin from the adverse effects of industrial development and resource extraction and use." We have been following developments in and around the Eureka from our involvement with the mining in the region primarily the proposed Mt Hope mine. The mining industry typically requires significant water rights for dewatering and consumption use during processing. For this reason and for the public good GBRW has an interest in water law and its application.

In our first read of the draft Diamond Valley Groundwater Management Plan we noted the marked departure from existing Nevada water law and wondered about the implications of this approach. Do any groups benefit disproportionately or are any groups disfavored disproportionately? We sought an independent analysis of the plan from a public interest perspective. This past summer GBRW commissioned Advocates for Community and Environment to review the DVGMP, "A Public Interest Review of the Proposed Diamond Valley Groundwater Management Plan," which is submitted in its entirely as part of GBRW's comments. Their background in water law, familiarity with Nevada water law, and water policy in general convinced us that they were well suited to do this work.

This groundwater management plan will be the first of its kind in Nevada, and it has the potential to set an influential precedent for other groundwater management plans in Nevada and elsewhere in the western United States. GBRW appreciates the initiative taken by the State Engineer in designating Diamond Valley as a Critical Management Area and the work of the developers of this draft Plan in taking this important step toward correcting the historic overdrafting of Diamond Valley's groundwater system and establishing a sustainable approach to future groundwater management and use in Diamond Valley. Nonetheless, as the report explains, we believe there are some parts of the plan that are not yet adequate to ensure a sound, sustainable, and equitable future for the groundwater system and residents of Diamond Valley, and that should be improved or made more complete.

The DVGMP may be good way to management water in the future, especially in the arid west, which is predicted to become drier. It can allow for flexibility in how to allocate water, but with this flexibility comes greater responsibility. Overall, the Plan is in need to additional requirements or constraints to

ensure that all of the goals set forth in the plan as agree by the Diamond Valley community. The analysis addresses potential pitfalls and suggests preventive measures so that only the positive aspects of the plan are implemented.

General comments on groundwater management plans:

- should maximize conservation of the groundwater resource, ensure that groundwater is put to its best uses as defined by the affected communities, and adopt management techniques that promote good stewardship of groundwater so that future generations have the same access to and opportunity to use the groundwater resource as current users.
- must provide for a transparent system of groundwater governance.
- should create an institutionalized structure for decision-making and governance that is fairly representative of stakeholders connected with those groundwater use goals and values.
- should reflect as full a range as possible of alternative strategies or techniques for achieving the goals of the plan.

General comments on water markets

- Water markets, as is done in the DVGMP, are increasingly recognized as a potentially useful approach to enhance efficiency and conservation. However, the general view seems to be that markets are not the whole solution, and that there remains a need and role for proactive oversight and direction from the appropriate regulator, which would be the State Engineer in Nevada.
- Water marketing approaches in isolation also pose the risk of unintentionally incentivizing undesirable results. For example, a shift in the pattern of water usage that serves the interests of rent, or profit, seeking market participants but that undermines socioeconomic, environmental, and other public interest goals.
- A water market with relatively free trading must be bounded by carefully crafted regulatory controls that will ensure that water remains in the hands of the local communities that always have depended on its availability.

In general, we think the DVGMP presents a well thought-out approach to promoting efficient marketing of groundwater through a system of shares and progressively reduced allocations based on existing water rights. However, the Report identifies a number of concerns and weaknesses with the Draft Plan that should be considered by the State Engineer and stakeholders as the process moves forward. We believe that rectifying the weaknesses and resolving the concerns identified in the Report would better ensure that the Plan is genuinely protective of Diamond Valley's agricultural character and the public interest values, which are of concern to GBRW and other members of the interested public. A summary of the most significant of those concerns is as follows:

Scope: The decision to limit the DVGMP's scope to groundwater irrigation rights and mining rights with irrigation base rights means that mining rights without irrigation base rights, along with commercial rights and municipal rights, which otherwise would be completely curtailed under strict priority administration, would not be subject to the significant reductions over time that are incorporated into the Plan. The effect of excluding those junior rights appears to be protecting them from any curtailment while subjecting the water rights covered by the plan to progressively reduced water allocations over time, which seems inequitable. While excluding non-irrigation uses may be appropriate in the specific circumstances pertaining to Diamond Valley, this limited approach should not be taken as a general precedent for other groundwater basin management plans, as the default starting point should be to seek as comprehensive a scope as possible.

Governance: The composition of the Advisory Board (AB), which will make recommendations to the State Engineer regarding administration of the DVGMP, presents a concern for both agricultural users and the interested public. Specifically, the AB does not include a position to represent environmental concerns or a position to represent public interest concerns, including local community interests. Both of these potential positions should be considered by stakeholders as a means by which the social and economic character of Diamond Valley, and the broader public interest, might best be protected under the DVGMP.

Significantly, the Plan provides for a transition away from its initial agriculture-dominated composition over the first eight years of the GMP's implementation. The result would be to create five "at-large" positions which will be open to representatives of any type of user (mining, industrial, municipal, commercial, agricultural, or domestic). One apparent implication of this provision is that the DVGMP assumes a shift away from agricultural water use in the Diamond Valley without an intention to provide any guarantee that agricultural uses or interests will continue to prevail or have any control over the character of water use in Diamond Valley. There is a substantial possibility, if not likelihood, that financially powerful interests could quickly acquire a majority of water shares through the relatively free trading of water shares permitted under the Plan, and could then use their voting power to skew the membership of the AB in a direction that would no longer be protective of local irrigated agriculture, other local community priorities, or the public interest.

Stakeholders should consider how representational seats on the AB might be allocated differently, in a way that would ensure that agricultural water and land uses and the public interest are adequately represented. This would better ensure that AB decisions best reflect the goals that are stated in the Plan, the priorities of the Diamond Valley community, and the public interest.

Additionally, according to the DVGMP, votes in elections of Advisory Board members will be "weighted according to number of Shares held by a voting rights holder." Such weighting will facilitate the concentration of power to control the AB's membership and decisions in the hands of one or a few dominant water shareholders.

A final concern arises from the DVGMP's procedural provision for only three days' public notice of AB meetings. Such short notice raises concerns about the transparency of the decisionmaking process under the GMP and about the adequacy of opportunity for input from affected water users and the concerned public before decisions are made.

Diminished State Engineer and Public Scrutiny and Review of Changes in Purpose and Place of Use: The DVGMP's approach to the annual trading of allocations facilitates, and thereby encourages, temporary transfers that may be repeated over many years, which in effect may amount to permanent transfers. Under the procedure established by the Plan those temporary transfers would be subject to a significantly reduced level of scrutiny by the State Engineer and the concerned public, as compared with what would be required for an openly permanent or long-term transfer, including an exemption from the protest and hearing process. Stakeholders should strongly consider incorporating environmental and public interest considerations, along with a meaningful opportunity for public participation, into the review process for all transfer applications likely to be repeated, or actually being repeated after a first year, in order to ensure adequate protections for the environment and other aspects of the public interest.

Character of Diamond Valley: Although it may be an unintended consequence of the water marketing approach employed by the DVGMP, the Plan appears to anticipate and facilitate the conversion of water use away from irrigated agriculture to other purposes of use, including mining, despite the stated goal of preserving the socio-economic structure of Diamond Valley, which currently is based on irrigated agriculture. The Plan does not include proactive measures designed to

maintain irrigated agriculture in Diamond Valley and provides that yearly allocations are freely transferrable for any beneficial use recognized under Nevada law. Without protective measures designed to serve the stated goals of the Plan, the purpose of use of traded allocations will be left to the market to determine. If stakeholders and the State Engineer are concerned about the implications of converting water use in Diamond Valley away from irrigated agriculture, which appears to have been a major concern during scoping, an express limitation in the Plan on changes in purpose of use when allocations are purchased should be considered. An example of how such an approach might look can be found in the Groundwater Sustainability Plan currently being implemented in Ventura County, California, which limits trades of existing agricultural groundwater rights to trades among irrigators.

Environmental Protection: The DVGMP does not adequately address, let alone protect, environmental resources or values in Diamond Valley, or any provisions for allocations of water to environmental uses. We believe that stakeholders should consider incentivizing environmentally friendly uses and trades under the Plan.

Out of Basin Transfers: While the DVGMP expressly prohibits out-of-basin transfers for the time being, it also unbundles water from the land to which the underlying water right is appurtenant through the creation of shares and more easily tradeable yearly allocations, which could facilitate such out-of-basin transfers in the future should the Plan be amended to allow such transfers. If stakeholders wish to prevent such out of basin transfers, it would be advisable to include standards in the Plan that are applicable to all transfers and that ensure adequate protections for the local economy and environment of Diamond Valley.

Summary

It is important for the stakeholders and the State Engineer to consider making revisions to address the potential unintended consequences of:

1. limiting the scope of the DVGMP and its pumping reductions to groundwater irrigation rights and mining rights with irrigation base rights
2. not including any position on the AB to represent the public interest, including local community interests and environmental concerns
3. the built-in transition away from guaranteed agricultural representation to at-large positions on the AB that may be held by whatever individual or entity might purchase water for other uses under the Plan
4. diminished State Engineer and public review of changes in purpose and place of use that will result from encouraging the trading of allocations on a temporary annual basis
5. allowing the market to determine what dominant purpose of use persists or emerges in Diamond Valley
6. failure to provide for environmental protection or incentives for environmentally friendly uses
7. the potential for unbundling water from land to create increasing pressures for out-of-basin transfers.

Stakeholders should consider incorporating additional constraints into the DVGMP that would be designed to ensure that potential unintended consequences are avoided and the goals outlined in the plan are realized so that the public interest is adequately protected.

To protect against such unintended consequences, we recommend that the stakeholders and State Engineer strongly consider revising parts of the Plan to better:

1. ensure that the complete range of values and goals related to groundwater in the basin are addressed and protected
2. ensure adequate representation of agricultural water uses and the public interest on the Advisory Board over the long-term
3. provide for transparency of the terms and procedures under which the proposed Water Manager will make decisions regarding proposed transfers and other matters affecting groundwater use in the Valley
4. ensure that Diamond Valley water users and residents have an adequate opportunity to be heard and a meaningful role in decision-making processes affecting groundwater use in the Valley.

There are a number of hard copies of our report here, and the digital version is on our website at:: http://gbrw.org/publications. GBRW is available to discuss the report and our perspective on the DVGMP.

Thank you,

John Hadder
Director
john@gbrw.org
775-348-1986

A PUBLIC INTEREST REVIEW OF THE PROPOSED DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN

PREPARED FOR

GREAT BASIN RESOURCE WATCH

By:
Simeon Herskovits and Iris Thornton
Advocates for Community and Environment
P.O. Box 1075
El Prado, New Mexico 87529

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PREFACE

Great Basin Resource Watch commissioned this Report because we believe an independent public review of the strengths, weaknesses, and implications of the proposed Diamond Valley Groundwater Management Plan from a public interest perspective is necessary. This groundwater management plan will be the first of its kind in Nevada, and it has the potential to set an influential precedent for other groundwater management plans in Nevada and elsewhere in the western United States. GBRW appreciates the initiative taken by the State Engineer in designating Diamond Valley as a Critical Management Area and the work of the developers of this draft Plan in taking this important step toward correcting the historic overdrafting of Diamond Valley's groundwater system and establishing a sustainable approach to future groundwater management and use in Diamond Valley. Nonetheless, as this Report explains, we believe there are some parts of the Plan that are not yet adequate to ensure a sound, sustainable, and equitable future for the groundwater system and residents of Diamond Valley, and that should be improved or made more complete.

As a non-profit public interest charitable organization dedicated to the sustainable, environmentally sound, and socially just management of natural resources in Nevada and the Great Basin, GBRW seeks to ensure that the decisionmakers and concerned public are as fully informed as possible about the merits and implications of the proposed Diamond Valley Groundwater Management Plan before it is adopted. Through constructive analysis and criticism, we hope to encourage the development and adoption of a holistic plan that comprehensively provides for the achievement of a sustainably healthy and equitably governed groundwater system, economy, community, and environment in Diamond Valley, Eureka County, the State of Nevada, and throughout the arid and semi-arid West. We hope that the public interest review and analysis of the proposed Diamond Valley Groundwater Management Plan presented in this Report helps Diamond Valley stakeholders, the Nevada State Engineer, and the broader concerned public achieve that outcome.

EXECUTIVE SUMMARY

This Report was prepared by Advocates for Community and Environment ("ACE") for Great Basin Resource Watch ("GBRW") and is intended to provide a neutral policy-oriented legal analysis of the proposed Diamond Valley Groundwater Management Plan ("DVGMP" or "Plan") from a public interest perspective. The Report identifies the DVGMP's strengths and weaknesses, and suggests modifications as appropriate, which can be used to assist the State Engineer and stakeholders in ensuring that the best plan possible is adopted and that the broader implications of the Plan for Nevada and other jurisdictions are fully understood. ACE and GBRW appreciate and respect the extensive efforts of the Diamond Valley community, Eureka County, and State Engineer to develop a plan to rectify the chronic overdraft of the Diamond Valley groundwater basin. We are supportive of stakeholders' efforts to move forward in a manner that best ensures the most socially, economically, and environmentally sound allocation of water in Diamond Valley. In that vein we believe that an outside public interest perspective can be useful in gauging the soundness and efficacy of the Draft DVGMP's provisions. This report is intended to provide a constructive and helpful tool that can be used to inform decision making about whether to adopt the Draft DVGMP in its present form and, where appropriate, how to strengthen the current proposed DVGMP to ensure that the Plan achieves its stated goals and the public interest is best served.

The proposed Diamond Valley Groundwater Management Plan employs a market-based approach to correcting the severe overdraft of the Diamond Valley groundwater basin in Eureka County, Nevada. Although the scope of the analysis in this Report has largely been limited to an evaluation of the strengths and weaknesses of the proposed plan itself, as opposed to an analysis of the soundness of water marketing as an approach to addressing groundwater overdraft more generally, we recommend that stakeholders and the State Engineer seriously consider the broader criticisms that have been levelled at the sufficiency of water marketing as a means of addressing water allocation challenges. We also urge the stakeholders and State Engineer to carefully consider potential alternatives to water marketing for comparative purposes to ensure that the best possible approach is taken in Diamond Valley. It does not appear that such alternatives were considered either during scoping or in the early stages of the development of the DVGMP. Consideration and evaluation of alternative approaches is advisable, in part, because water marketing as an approach to rectifying overallocation of a basin carries with it inherent concerns such as the potential sacrifice of the greater public interest in favor of an economically efficient allocation of the resource. This and other concerns should be considered and addressed prior to adopting a groundwater management plan. Because a water marketing approach represents a significant departure from current Nevada law and the protections it provides to the public, including future generations, as well as senior water rights owners, and because the approach taken to address Diamond Valley's groundwater overdraft could have a significant impact on the future of groundwater management in Nevada, the consequences and implications of adopting such an approach should be carefully evaluated, with the intended social, economic, and environmental goals at the center of and guiding the debate, prior to the adoption of a groundwater management plan.

Comparative analyses aside, we understand that the stakeholders in Diamond Valley have chosen a water marketing approach to rectifying the overdraft problem in the groundwater basin, and this analysis is designed to help stakeholders ensure that such an approach is adequately protective of existing water rights and uses and of the public interest, including the interests of local Diamond Valley communities, the environment, and the broader public. In general, we think the DVGMP presents a well thought-out approach to promoting efficient marketing of groundwater through a system of shares and progressively reduced allocations

based on existing water rights. However, this Report identifies a number of concerns and weaknesses with the Draft Plan that should be considered by the State Engineer and stakeholders as the process moves forward. We believe that rectifying the weaknesses and resolving the concerns identified in this Report would better ensure that the Plan is genuinely protective of Diamond Valley's agricultural character and the public interest values which are of concern to GBRW and other members of the interested public. A summary of the most significant of those concerns is as follows:

1. **Scope**: The decision to limit the DVGMP's scope to groundwater irrigation rights and mining rights with irrigation base rights means that mining rights without irrigation base rights, along with commercial rights and municipal rights, which otherwise would be completely curtailed under strict priority administration, would not be subject to the significant reductions over time that are incorporated into the Plan. While excluding non-irrigation uses may be appropriate in the specific circumstances pertaining to Diamond Valley, this limited approach should not be taken as a general precedent for other groundwater basin management plans, as the default starting point should be to seek as comprehensive a scope as possible.
2. **Governance**: The composition of the Advisory Board (AB), which will make recommendations to the State Engineer regarding administration of the DVGMP, presents a concern for both agricultural users and the interested public. Specifically, the AB does not include a position to represent environmental concerns or a position to represent public interest concerns, including local community interests. Both of these potential positions should be considered by stakeholders as a means by which the social and economic character of Diamond Valley, and the broader public interest, might best be protected under the DVGMP. Additionally, the Plan provides for a transition away from its initial agriculture-dominated composition over the first eight years of the GMP's implementation. The result will be to create five "at-large" positions which will be open to representatives of any type of user (mining, industrial, municipal, commercial, agricultural, or domestic). One apparent implication of these provisions is that the DVGMP assumes a shift away from agricultural water use in the Valley and is not intended to provide any guarantee that agricultural uses or interests will continue to prevail or have any control over the character of water use in Diamond Valley. Stakeholders should consider how representational seats on the AB might be allocated differently, in a way that would ensure that agricultural water and land uses and the public interest are adequately represented. This would better ensure that AB decisions best reflect the goals that are stated in the Plan, the priorities of the Diamond Valley community, and the public interest.
3. **Diminished State Engineer and Public Scrutiny and Review of Changes in Purpose and Place of Use:** The DVGMP's approach to the annual trading of allocations facilitates, and thereby encourages, temporary transfers that may be repeated over many years, which in effect may amount to permanent transfers. Under the procedure established by the Plan those temporary transfers would be subject to a significantly reduced level of scrutiny by the State Engineer and the concerned public, as compared with what would be required for an openly permanent or long-term transfer, including an exemption from the protest and hearing process. Stakeholders should strongly consider incorporating environmental and public interest considerations, along with a meaningful opportunity for public participation, into the review process for all transfer applications likely to be repeated, or actually being repeated after a first year, in order to ensure adequate protections for the environment and other aspects of the public interest.
4. **Character of Diamond Valley:** Although it may be an unintended consequence of the water marketing approach employed by the DVGMP, the Plan appears to anticipate and

facilitate the conversion of water use away from irrigated agriculture to other purposes of use, including mining, despite the stated goal of preserving the socio-economic structure of Diamond Valley, which currently is based on irrigated agriculture. The Plan does not include proactive measures designed to maintain irrigated agriculture in Diamond Valley and provides that yearly allocations are freely transferrable for any beneficial use recognized under Nevada law. Without protective measures designed to serve the stated goals of the Plan, the purpose of use of traded allocations will be left to the market to determine. If stakeholders and the State Engineer are concerned about the implications of converting water use in Diamond Valley away from irrigated agriculture, which appears to have been a major concern during scoping, an express limitation in the Plan on changes in purpose of use when allocations are purchased should be considered. An example of how such an approach might look can be found in the Groundwater Sustainability Plan currently being implemented in Ventura County, California, which limits trades of existing agricultural groundwater rights to trades among irrigators.[1]

5. **Environmental Protection:** The DVGMP does not adequately address, let alone protect, environmental resources or values in Diamond Valley, or any provisions for allocations of water to environmental uses. We believe that stakeholders should consider incentivizing environmentally friendly uses and trades under the Plan.
6. **Out of Basin Transfers**: While the DVGMP expressly prohibits out-of-basin transfers for the time being, it also unbundles water from the land to which the underlying water right is appurtenant through the creation of shares and more easily tradeable yearly allocations, which could facilitate such out-of-basin transfers in the future should the Plan be amended to allow such transfers. If stakeholders wish to prevent such out of basin transfers, it would be advisable to include standards in the Plan that are applicable to all transfers and that ensure adequate protections for the local economy and environment of Diamond Valley.

Overall the DVGMP appears to be a laudable, but not fully adequate, water marketing plan that needs some revision and, in places, completion in order to: (1) ensure that the complete range of values and goals related to groundwater in the basin are addressed and protected; (2) ensure adequate representation of agricultural water uses on the Advisory Board over the long-term; (3) provide for transparency of the terms and procedures under which the proposed Water Manager will make decisions regarding proposed transfers and other matters affecting groundwater use in the Valley; and (4) ensure that Diamond Valley water users and residents, and the concerned public in Nevada more generally, have an adequate opportunity to be heard and a meaningful role in decisionmaking processes affecting groundwater use in the Valley. A more comprehensive analysis of the plan's strengths and weaknesses is presented below.

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[1] See *Preliminary Draft Groundwater Sustainability Plan for the Oxnard Subbasin, at 1-18 (Nov. 2017), available at http://fcgma.org/images/Oxnard_GSP_OPT.pdf; see also Fox Canyon Water Groundwater Management Agency, Advanced Metering Infrastructure (AMI) & Water Market, http://www.fcgma.org/component/content/article/2-uncategorised/121-advanced-metering-infrastructure-ami-water-market.*

REVIEW AND ANALYSIS

A. Background of the Diamond Valley Groundwater Management Plan:

Diamond Valley, located in Eureka County is a major agricultural area in Nevada which relies on groundwater for irrigation. "With few exceptions, most irrigation occurs in the southern half of the basin, with limited irrigation west of the playa in the northern half of the basin."[2] Most of the pumped groundwater in the Valley is used for irrigation of alfalfa and grass hay, but groundwater also supplies domestic wells, stockwatering wells, mining, and commercial and industrial users in the Valley.[3] "Very little agricultural land in Diamond Valley was irrigated using groundwater prior to 1960."[4] However, over the past half century, Diamond Valley has become severely overappropriated, with groundwater levels declining at roughly two feet per year since 1960 resulting in over 100 feet of water level decline in the Valley.[5] The perennial yield of the Valley is 30,000 acre-feet per year ("afa"), but about 126,000 afa of irrigation groundwater rights are permitted.[6] As of 2016, about 76,000 afa of those permitted rights were pumped per year, resulting in withdrawals from the basin that exceed the perennial yield by a factor of roughly two and a half.[7] This imbalance between available water and pumped water has resulted in severe overdraft and continuously declining water levels.

On August 25, 2015, the State Engineer issued Order 1264, which formally designated Diamond Valley as Nevada's first and only Critical Management Area ("CMA") pursuant to his authority under NRS 534.110.[8] As described below, this designation gave groundwater rights holders in Diamond Valley 10 years to develop a Groundwater Management Plan ("GMP") that would work to remove the basin from CMA designation. In the absence of the adoption of a GMP for Diamond Valley, the State Engineer by law must administer the basin by strict priority starting in 2025, which would result in the complete curtailment of all groundwater rights with the priority date of about May 1960 or later.[9] Such curtailment would result in full curtailment of a significant number of irrigation rights, all mining rights, and some municipal rights.

Groundwater rights for irrigation and stockwatering have priority dates both before and after 1960, many of which would be curtailed under priority administration.[10] While mining rights currently do not represent a significant withdrawal of groundwater from Diamond Valley, the vast majority of groundwater rights for mining have priority dates of 1970 of later and would be

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[2] Diamond Valley Groundwater Management Plan ("DVGMP" or "GMP") app. D.
[3] DVGMP § 2.
[4] *Id.* at app. D.
[5] *Id.*; Nevada State Engineer Order 1264 (1985).
[6] DVGMP § 2.
[7] *Id.*
[8] Just prior to formally designating Diamond Valley a CMA, on August 21, 2015, the Nevada State Engineer issued Order 1263, reinitiating adjudication proceedings for Diamond Valley.
[9] DVGMP, at ES. Pressure for priority administration and curtailment of junior water rights probably was inevitable, but arose specifically from litigation initiated by the Sadler Ranch which claims that it owns vested senior spring water rights that have been impacted by the excessive pumping of groundwater in Diamond Valley. *See Eureka County v. Seventh Judicial District Court*, No. 72371,133 Nev. Adv. Op. 111, at 4-5 (Dec. 28, 2017).
[10] *See* Nevada State Engineer Hydrographic Abstract for Diamond Valley.

curtailed.[11] All Commercial and industrial groundwater rights post-date 1960 and would be curtailed.[12] All municipal and quasi-municipal groundwater rights also post-date 1960.[13]

In 2014, prior to the designation of Diamond Valley as a Critical Management Area by the State Engineer, but in anticipation of such a designation, a group of groundwater users, primarily irrigators, requested that the Eureka Conservation District (ECD) take the lead role in facilitating development of a GMP.[14] Subsequently, ECD contracted with Walker and Associates to conduct scoping for the development of a potential solution for the chronic over-pumping of groundwater in Diamond Valley.[15] After notifying all groundwater rights owners and all known domestic well owners by mail, the firm conducted three facilitated scoping meetings with Diamond Valley irrigators as well as interviews with ten Diamond Valley irrigators and two mining firms to develop input related to issues associated with and solutions addressing over-pumping.[16] During this scoping process, participants, mostly irrigators, identified 72 issues related to a groundwater management plan and 67 potential solutions for reducing groundwater pumping.[17]

Following the scoping process, Walker and Associates summarized the issues identified in those meetings is as follows:

1. Governance. How would a GMP be implemented and by whom? The State Engineer's role was important to participants. Additionally, would water rights owners buy in to the plan and in a timely way given the urgency?
2. Flexibility in the law of prior appropriation. How would a plan address the junior/senior water right issues that currently exists? Most participants were concerned that strict adherence to first in time first in right would have a devastating impact on existing agricultural economy. Additionally, flexibility in the use it or lose it provision of Nevada law was consistently mentioned. Finally, there was a concern that irrigation water rights owners should be treated equally, regardless of seniority.
3. Funding. Funding for a water right buyout program. Where would funds come from and how would water rights be valued?
4. Education. Education on best management practices to reduce water use, combined with information and participation in the development of a GMP is an important issue.

A summary of the potential solutions to over-pumping identified in those meetings is as follows:

1. Water rights buyouts
2. Mechanical and operation irrigation efficiency improvements coupled with metering
3. Transition to alternative low water use crops
4. Modify state water law to allow non-use without losing water right[18]

Following the scoping process, Walker and Associates determined that the majority of the participants in the process were in favor of developing a groundwater management plan for

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[11] *Id.*
[12] *Id.*
[13] *Id.*
[14] DVGMP § 4.
[15] *Id.*
[16] *See id.*; *see also id.* at app. B.
[17] *Id.* at app. B.
[18] *Id.*

Diamond Valley in order to avoid priority administration by the State Engineer and to give water rights owners in Diamond Valley local control over and flexibility with regard to water management in order to minimize negative impact of reductions in pumping.[19] On October 14, 2014, Eureka Conservation District sent a request for feedback to owners of all groundwater rights and all known domestic well owners in Diamond Valley about whether they thought Diamond Valley should be designated a critical management area and a groundwater management plan pursued.[20] Roughly 74% of the 20% of domestic, irrigation, and municipal users who responded to the mailing supported the development of a GMP for Diamond Valley.[21] Subsequently numerous workshops were held during which the DVGMP was developed.[22] At subsequent meetings during 2015, meeting participants made the decision to pursue, and eventually developed, the DVGMP.[23] During the plan development process, notifications and requests for participation were published in the local paper and mailed to groundwater rights holders.[24] Early in the development process, at a plan development workshop hosted by Eureka Conservation District, Professor Mike Young made a presentation on unbundling of water rights as a potential approach, and the first outline for the plan that came out of that workshop indicates that plan drafters were "influenced significantly" by Young's presentation and work.[25] It appears that no alternative approach or methodology for bringing the Diamond Valley groundwater basin into the required state of equilibrium and sustainably managing the basin's groundwater was considered, and that the focus was exclusively on the water marketing program presented by Professor Young. Over the course of the next two years, many meetings were held and the DVGMP was developed.[2627]

On August 16, 2018, a petition signed by the majority of groundwater rights holders in Diamond Valley was submitted to the State Engineer for consideration. According to the State Engineer's October 1, 2018, Hearing Notice, "[t]he public hearing will be held 10:00 a.m., Tuesday, October 30, 2018, at the Eureka Opera House Auditorium, 31 South Main Street, Eureka, Nevada. Written comments will also be accepted until the conclusion of the hearing."[28] After the hearing, the State Engineer will make a decision about whether to approve the plan. That decision may be reviewed by the district court pursuant to NRS 534.037(4) and NRS 533.450, which provides for petitions for judicial review, or appeals, of State Engineer decisions.

B. Groundwater Management Plans Generally:

Broadly speaking, whenever a groundwater basin is in danger of being problematically depleted, or already is being problematically depleted, an overarching goal of any sound groundwater management plan should be to achieve a sustainable approach to the use of the groundwater

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[19] *Id.*
[20] *Id.*
[21] *Id.*
[22] *Id.* at app. C.
[23] *Id.*
[24] *Id.*
[25] *Id.*
[26] *Id.*
[27] While the DVGMP was being developed, the State Engineer was moving forward with an adjudication of Diamond Valley, which is not yet complete. According to the State Engineer's Diamond Valley Informational Statement, the office hopes to complete the order of determination by January 31, 2020.
[28] Nevada State Engineer, Diamond Valley Groundwater Management Plan, Notice of Hearing (Oct. 1, 2018).

resource in question. This goal necessarily would involve halting declines in the water table and bringing the groundwater system into an equilibrium that supports prioritized goals and values. But sustainability here also would include maximizing conservation of the groundwater resource, ensuring that groundwater is put to its best uses as defined by the affected communities, and adopting management techniques that promote good stewardship of groundwater so that future generations have the same access to and opportunity to use the groundwater resource as current users. A sustainable approach to groundwater management also should balance economic, environmental, and social or cultural needs for the available water to provide for varying groundwater uses.

A groundwater management plan should address the varied objectives or goals of water users and residents in the basin, and should consider the linkages between the basin's hydrology and both the environmental and socio-economic components of groundwater management. A GMP should consider how best to reach and adhere to an optimal amount or rate of groundwater extraction and how that extracted groundwater should be allocated among different uses. A GMP also should consider whether pumping rules should vary within the basin by time and location to reflect differing potential impacts. Newman, Howitt and MacEwan, How Are Western Water Districts Managing Groundwater Basins?, 72 California Agriculture 28 (2018); Patterson, Doyle and Monsma, The Aspen Institute, The Future of Groundwater: A Report from the 2017 Aspen-Nicholas Water Forum (2017).

In acknowledgment of the adage that you cannot manage what you cannot measure, it generally is essential for a GMP to incorporate and require metering of groundwater pumping where possible. Additionally, the existence and rigor of a monitoring regime in the basin will increase incentives for improved water use technology and for more efficient water use.

A worthwhile consideration in a GMP is whether the approach being taken is properly structured to promote bottom-up collaboration between small and large stakeholders to promote broad buy-in from affected individuals and to provide flexibility in decision-making. Ideally a GMP also will include a component to provide for meaningful public education and effective communication about groundwater problems, issues, objectives, and related actions in the basin, as well as any related changing conditions. The purpose of this is twofold. One purpose is to provide adequate readily accessible information to stakeholders so that they can participate effectively in decisions that may affect their interests. An equally important purpose is to educate stakeholders so that they understand the nature of the issues or problems that they collectively face and the reason for the provisions of the GMP, which hopefully will enhance the level of support for the Plan within the affected community.

To ensure the integrity of decisions regarding groundwater use and management, and to ensure that the affected communities accept and support the management regime, a groundwater management plan must provide for a transparent system of groundwater governance (or management) and for readily accessible means by which interested water users and basin residents can meaningfully participate in the making of decisions regarding groundwater management in the basin. Along the same lines, to ensure that the goals and values which affected water users and residents have prioritized are properly served, a groundwater management plan should create an institutionalized structure for decisionmaking and governance that is fairly representative of stakeholders connected with those groundwater use goals and values.

As a general matter, a groundwater management plan should address the hydrology of the basin in question, including any hydrologic variations within the basin, such as between sub-

basins, and the implications of such difference for the potential benefits or detriments of increased or decreased pumping in particular areas in the basin.[29]

A groundwater management plan also should expressly recognize and address the full range of values and goals that different water users and residents in the basin have for groundwater in the basin. For example, some residents may chiefly value the continued viability of irrigated agriculture, such as ranching and/or farming, and the local communities that depend on that activity. Others may want to prioritize different forms of industrial or commercial development that require groundwater. Still others may put a high value on protecting the environmental resources that depend on groundwater directly or the traditional patterns of groundwater use in the basin, such as wildlife habitat created by irrigated agricultural uses of groundwater. By recognizing and promoting dialogue about how these varying values and objectives can be balanced, a groundwater management plan can achieve a broadly accepted approach to managing groundwater uses in the basin so as to ensure that the resource is managed sustainably in the future.

In addition, to be comprehensive or complete, a groundwater management plan should address and reflect as full a range as possible of alternative strategies or techniques for achieving the goals of the plan. As has generally been recognized, such strategies broadly break into supply side and demand side approaches to management. The creation of more formal and facilitated water markets, as is done in the DVGMP, is increasingly recognized as a potentially useful approach to enhancing efficiency and conservation. However, the general view seems to be that markets are not the whole solution, and that there remains a need and role for proactive oversight and direction from the appropriate regulator, which would be the State Engineer in Nevada. Consideration of rules that require or promote such techniques as water banking, water rights carryovers, crop conversion, and incentives for proactive groundwater recharging can play a key role in promoting the recovery of the groundwater table and supporting the continued viability of agricultural uses in the basin.

Finally, to provide a means of assessing a groundwater management plan's effectiveness a plan should provide for measurement of water use and monitoring of the groundwater system's response to the measures called for in the plan. Metering of wells is a good method for measuring rates of levels of groundwater use in a basin. Monitoring the response of the groundwater system seems to be a straightforward matter of measuring the groundwater table at various representative locations in the basin, with an emphasis on communities and/or environmental resources of particular concern.

So, a comprehensive groundwater management plan should adopt an integrated approach to water resource management that holistically addresses water quality and quantity issues and goals, available strategies for achieving desired outcomes, and opportunities and methods for enhancing water conservation, water marketing, and the provision of funds for proactive water management.

It may not be sound to rely on water marketing alone to achieve groundwater sustainability along with prioritized social, economic, and environmental goals.[30] This is so, in part, because water marketing approaches often fail to properly account for various transaction costs associated with the trading of water rights or shares and other costs necessary to ensure

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[29] Newman, Howitt and MacEwan, How Are Western Water Districts Managing Groundwater Basins?, 72 California Agriculture 28 (2018).

[30] Newman, Howitt, and MacEwan (2018); Patterson, Doyle, and Monsma (2017).

competent adaptive governance capacity. Water marketing approaches in isolation also pose the risk of unintentionally incentivizing undesirable results, such as a shift in the pattern of water usage that serves the interests of rent, or profit, seeking market participants but that undermines socioeconomic, environmental, and other public interest goals. For instance, the simple introduction of freed water marketing, or trading, has been criticized for its potentially harmful impact on lower-income agricultural producers and its potential to increase inequitable distribution of available water between the poor and the higher income interests. In order to protect against undesirable outcomes that may result from allowing purely profit-motivated reallocation, a water market with relatively free trading must be bounded by carefully crafted regulatory controls that will ensure that water remains in the hands of the local communities that always have depended on its availability.

C. Nevada Water Law Background:

1. Background Principles:

Because the adoption of a groundwater management plan for Diamond Valley would represent a significant change in the way water is managed, it is useful to engage in a brief review of Nevada water law which has governed appropriations of water and changes in its point of diversion, place of use, and purpose of use for much of the State's history. This review can inform an evaluation of the strengths and weaknesses of the Diamond Valley Groundwater Management Plan. In Nevada, as in the other western states, both ground and surface water belong to the public, and are subject to appropriation for beneficial use under the prior appropriation doctrine.[31] Under Nevada law, an appropriator of water does not obtain title to the water itself, but obtains a usufructuary right to divert water for beneficial use.[32] NRS 533.035 provides that "[b]eneficial use shall be the basis, the measure and the limit of the right to use water,"[33] and thus, if a water right goes unused or there is no longer a necessity for its use, the right to divert ceases and it may be deemed forfeited or abandoned by the State Engineer.[34] Additionally, the beneficial use requirement prevents speculative appropriations for which there is no identified intended use.[35] The right to divert water for beneficial use is granted subject to existing rights,[36] and carries with it a date of priority, which gives the appropriator the right to use water *vis a vis* other users.[37] The priority date gives the owner of an appropriative water right the right to the entire amount of water diverted, and is equivalent to either: (1) the date on which the water was put to beneficial use in the case of a vested right perfected prior to the enactment of Nevada Water law;[38] or (2) the date on which the applicant applied for a water right with the State Engineer in the case of a water right obtained after enactment of the relevant statute that governs it.[39] The prior appropriation doctrine does not contemplate the sharing of shortages, and so if there is insufficient water in the system to satisfy all permitted rights, juniors

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[31] NRS 533.025; NRS 533.030; NRS 534.020.
[32] *Application of Filippini*, 66 Nev. 17, 21-22 (1949).
[33] *See* NRS 533.070(1).
[34] NRS 533.045; NRS 533.060; NRS 534.090; *see also* NRS 533.410.
[35] *Bacher v. State Engineer*, 122 Nev. 1110, 1120-21 (2006); *see also* NRS 533,070; NRS 533.370(c)(1).
[36] NRS 533.030; NRS 533.430; NRS 534.020.
[37] *See* NRS 533.030; NRS 534.020; NRS 534.030.
[38] *See* NRS 533.085.
[39] *See* NRS 533.030; NRS 533.355; NRS 534.080(3).

with later priority dates will be curtailed so that seniors with earlier priority dates may receive their full allocations.[40]

2. Priority Administration and Groundwater Management Plans under Nevada Law:

NRS 534.110 governs the curtailment of junior groundwater rights in basins which are overappropriated, or in other words, for which permitted water rights generally exceed available water. NRS 534.110(7)(a) provides that the State Engineer "[m]ay designate as a critical management area any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin," and further that (b) "[t]he State Engineer . . . [s]hall designate as a critical management area any basin in which withdrawals of groundwater consistently exceed the perennial yield of the basin upon receipt of a petition for such a designation which is signed by a majority of the holders of certificates or permits to appropriate water in the basin that are on file in the Office of the State Engineer ... If a basin has been designated as a critical management area for at least 10 consecutive years, the State Engineer shall order that withdrawals, including, without limitation, withdrawals from domestic wells, be restricted in that basin to conform to priority rights, unless a groundwater management plan has been approved for the basin pursuant to NRS 534.037." In other words, after ten years, the State Engineer shall administer a designated basin by priority, cutting off junior rights as necessary to reach a balance between recharge and discharge, unless a groundwater management plan has been approved in that basin.

NRS 534.037(1), governing groundwater management plans, provides that "[i]n a basin that has been designated as a critical management area by the State Engineer ..., a petition for the approval of a groundwater management plan for the basin may be submitted to the State Engineer. The petition must be signed by a majority of the holders of permits or certificates to appropriate water in the basin that are on file in the Office of the State Engineer and must be accompanied by a groundwater management plan which must set forth the necessary steps for removal of the basin's designation as a critical management area." Further, NRS 534.037(5) provides that "[a]n amendment to a groundwater management plan must be proposed and approved in the same manner as an original groundwater management plan is proposed and approved pursuant to this section."

NRS 534.037(2) provides that "[i]n determining whether to approve a groundwater management plan submitted pursuant to subsection 1, the State Engineer shall consider, without limitation:

(a) The hydrology of the basin;
(b) The physical characteristics of the basin;
(c) The geographic spacing and location of the withdrawals of groundwater in the basin;
(d) The quality of the water in the basin;
(e) The wells located in the basin, including, without limitation, domestic wells;
(f) Whether a groundwater management plan already exists for the basin; and
(g) Any other factor deemed relevant by the State Engineer."

The State Engineer must hold a public hearing on the GMP prior to its adoption.[41] Any amendment to the GMP following adoption by the State Engineer "must be proposed and

[40] *See* NRS 534.110(7); *Application of Filippini*, 66 Nev. at 21.
[41] NRS 534.037(3).

approved in the same manner as an original groundwater management plan is proposed and approved" by the State Engineer.[42]

3. Change Application Procedures and Standards under Nevada Law:

NRS 533.040(1) provides that "[e]xcept as otherwise provided in this section, any water used in this State for beneficial purposes shall be deemed to remain appurtenant to the place of use." NRS § 533.040(2) further states that "[i]f at any time it is impracticable to use water beneficially or economically at the place to which it is appurtenant, the right may be severed from the place of use and be simultaneously transferred and become appurtenant to another place of use, in the manner provided in this chapter, without losing priority of right." Further, the Nevada Supreme Court has held that water rights may be transferred separately from the property to which they are appurtenant.[43] The standards applicable to changes in place of use are laid out in NRS 533.370, which provides, in relevant part, that:

> (1) "...the State Engineer shall approve an application submitted in proper form which contemplates the application of water to beneficial use if:
>
> (a) The application is accompanied by the prescribed fees;
>
> (b) The proposed use or change, if within an irrigation district, does not adversely affect the cost of water for other holders of water rights in the district or lessen the efficiency of the district in its delivery or use of water; and
>
> (c) The applicant provides proof satisfactory to the State Engineer of the applicant's:
>
> (1) Intention in good faith to construct any work necessary to apply the water to the intended beneficial use with reasonable diligence; and
>
> (2) Financial ability and reasonable expectation actually to construct the work and apply the water to the intended beneficial use with reasonable diligence.
>
> 2. Except as otherwise provided in subsection 10, where there is no unappropriated water in the proposed source of supply, or where its proposed use or change conflicts with existing rights or with protectable interests in existing domestic wells as set forth in NRS 533.024, or threatens to prove detrimental to the public interest, the State Engineer shall reject the application and refuse to issue the requested permit. If a previous application for a similar use of water within the same basin has been rejected on those grounds, the new application may be denied without publication.
>
> 3. In addition to the criteria set forth in subsections 1 and 2, in determining whether an application for an interbasin transfer of groundwater must be rejected pursuant to this section, the State Engineer shall consider:

[42] NRS 534.037(5).
[43] *Adaven Management, Inc. v. Mountain Falls Acquisition Corp.*, 124 Nev. 770 (2008).

(a) Whether the applicant has justified the need to import the water from another basin;

(b) If the State Engineer determines that a plan for conservation of water is advisable for the basin into which the water is to be imported, whether the applicant has demonstrated that such a plan has been adopted and is being effectively carried out;

(c) Whether the proposed action is environmentally sound as it relates to the basin from which the water is exported;

(d) Whether the proposed action is an appropriate long-term use which will not unduly limit the future growth and development in the basin from which the water is exported; and

(e) Any other factor the State Engineer determines to be relevant.

...

8. If a hearing is held regarding an application, the decision of the State Engineer must be in writing and include findings of fact, conclusions of law and a statement of the underlying facts supporting the findings of fact."

Finally, NRS 533.365, governing protest and hearing procedures, provides the mechanism by which the interested public or a water rights owner may participate in State Engineer decisionmaking processes. NRS 533.365(1) provides that: "[a]ny person interested may, within 30 days after the date of last publication of the notice of application, file with the State Engineer a written protest against the granting of the application, setting forth with reasonable certainty the grounds of such protest...." Further, NRS 533.365(4) provides that "[t]he State Engineer shall consider the protest, and may, in his or her discretion, hold hearings and require the filing of such evidence as the State Engineer may deem necessary to a full understanding of the rights involved. The State Engineer shall give notice of the hearing by certified mail to both the applicant and the protestant. The notice must state the time and place at which the hearing is to be held and must be mailed at least 15 days before the date set for the hearing." Finally, NRS 533.450 provides for judicial review of State Engineer decisions.

The DVGMP represents a departure from the principles of prior appropriation that for most of Nevada's history have governed and underpinned its water law. The Plan also would loosen the law's protections for existing rights, the public interest, and the environment reviewed in this section of the Report. The potential consequences of such a departure, intended or otherwise, should be evaluated in order to make an informed decision regarding whether such a departure is acceptable or desirable, and represents a sound policy choice. Any departure from longstanding law and policy should only be made with the utmost caution and only after considered and careful analysis of potential impacts or consequences. The below analysis of the DVGMP is presented in that context and in reference to existing law with the intent of helping to inform the decision about whether to approve the Plan in its present form or require some modifications to be made first.

D. Overview and Broad Review of Diamond Valley Groundwater Management Plan:

According to the DVGMP, "[t]he GMP provides an alternative approach to ensure that over time groundwater levels stabilize. Existing water users may continue to use water in proportion to their water rights and seniority. The GMP requires reductions in pumping over time. This is accomplished by a system of shares with annual allocations (acre-feet of water per share) of water being available based on a formula...Using the formula, shares are set for each water right and do not change. However, annual allocations (acre-feet of water per share) are reduced each year under the GMP to meet the required pumping reductions...The Plan creates a system to track water allocations and use. The State Engineer will administer and manage the Plan while being advised by a locally elected Advisory Board. The State Engineer is authorized to hire a Water Manager to assist."[44]

Further, "[t]he Diamond Valley Groundwater Management Plan applies to groundwater rights that serve an irrigation purpose and mining or milling rights that have an irrigation base water right. Priority (seniority) is factored into these rights using a formula which converts the rights to a set amount of shares. The shares are used on a year-to-year basis for calculating the volume of water (annual allocation in acre-feet of water per share) allowed to be used, sold, traded and banked. The GMP does not apply to vested water rights (including mitigation rights), municipal, industrial, stockwater, or existing domestic wells."[45]

In general, the DVGMP seems to present a reasonably well thought-out approach to promoting easier marketing of groundwater through a system of shares and progressively reduced allocations based on existing water rights. The basic hydrology of Diamond Valley, the magnitude of overpumping, and the rate of drawdown of the water table are well-known and appear to be addressed in some detail in the Plan's appendices, as is the anticipated approach to reducing the amount allocated to the shares based on each water right. Nonetheless, it is fair to point out that the Plan does not provide a comprehensive or holistic program for addressing the problems that have been created by historical overpumping of groundwater or for achieving the prioritized goals for Diamond Valley, particularly the goal of preserving the agricultural base and character of the Valley.

The Plan does not appear to address or reflect consideration of alternative strategies for reducing the depletion of the groundwater system in Diamond Valley. It also does not include alternative strategies for supporting the continued viability of traditional irrigated agriculture in the Valley and does not reflect consideration of any environmental resources or values. These values may be of considerably lesser significance in a basin such as Diamond Valley where the water table already is far too low to support phreatophytic plant life. However, existing irrigated agriculture may well have created wildlife habitat and environmental conditions that Diamond Valley residents value. Additionally, both the structure of the Advisory Board and the procedural rules pertaining to trades/transfers of water shares and allocations under the DVGMP should be reexamined to ensure adequate long-term representation of agricultural users and adequate opportunities for stakeholders of limited means to stay informed and participate meaningfully in the decision-making processes of the Water Manager. In addition, the DVGMP does not appear to have taken account of potential water quality issues or problems that may arise in connection with the transfer of shares from agricultural uses to use in mining and milling operations. Whether or not separate permitting processes are expected to address water quality issues

[44] DVGMP, at ES.
[45] *Id.*

adequately, some consideration and discussion of such potential implications of a shift to increased use of groundwater in mining and milling operations should be included in the Plan.

Overall the DV GMP appears to be a laudable, but not fully adequate, plan that needs some modest revision and, in places, completion in order to: (1) ensure that the complete range of values and goals related to groundwater in the basin are addressed; (2) ensure adequate representation of agricultural water uses and the public interest on the Advisory Board over the long-term; (3) provide for transparency of the terms and procedures under which the proposed Water Manager will make decisions regarding proposed transfers and other matters affecting groundwater use in the Valley; and (4) ensure that Diamond Valley water users and residents have an adequate opportunity to be heard and a meaningful role in decisionmaking processes affecting groundwater use in the Valley.

E. Section-by-Section Analysis of the GMP:

1. Stakeholder Involvement in Development of the GMP (GMP § 4):

Stakeholder participation, while extensive and the result of significant outreach efforts, appears to have been limited to water rights holders within Diamond Valley. Because the DVGMP could have broad implications for the future of groundwater management in Nevada, the State Engineer and the local stakeholders should consider providing a meaningful opportunity for members of the concerned public to participate in the development of the DVGMP in order to ensure that the broader public interest is represented.

2. Goals of the GMP (GMP § 6):

It is important to evaluate the adequacy of the DVGMP's stated goals in order to determine whether they are designed to move Diamond Valley towards the conditions (economic, environmental, and cultural) that stakeholders hope to see in the future. The DVGMP lists the following goals:

A. Remove the basin's CMA designation within 35 years by stabilizing groundwater levels in Diamond Valley

B. Reduce consumptive use to not exceed perennial yield

C. Increase groundwater supply

D. Maximize the number of groundwater users committed to achieving GMP goals

E. Preserve economic outputs from Diamond Valley

F. Maximize viable land-uses of private land

G. Avoid impairment of vested groundwater rights

H. Preserve the socio-economic structure of Diamond Valley and southern Eureka County[46]

The goals listed in Section 6 appear to be designed to restore groundwater levels in Diamond Valley while protecting local communities, and as a general matter they appear to provide an adequate foundation on which to build a plan. It is not clear, however, whether the "economic

[46] DVGMP § 6.

outputs," "land uses" and "socio-economic structure" referenced in the DVGMP's goals are meant to reflect the socio-economic priorities and goals of local communities, or whether they are being envisioned from more of a Statewide or overall societal perspective on economic and social priorities. Section 6 subsections E, F, and H could be clarified to more specifically provide for the preservation of local communities and their ways of life, specifically the continuation of irrigated agriculture if that is the desire of the community.

Stakeholders and the interested public should also evaluate the potential ramifications of failure to include protection of environmental values as a plan goal under Section 6. The plan does not provide water for the environment, but at the same time appears to contemplate conversion of water used for agriculture to other uses. The resulting fallowed land could mean a significant decrease in wildlife habitat in Diamond Valley. Stakeholders should consider what environmental goals could or should be incorporated into the DVGMP.

3. Scope of the GMP (GMP §§ 7 & 8):

a. Limit on Out-of-Basin Transfers (GMP § 7):

The DVGMP prohibits out-of-basin transfers of groundwater with the caveat that the plan may be amended in the future to allow such transfers.[47] Specifically, the DVGMP contemplates the amendment and addition of an out-of-basin transfer provision to the plan in the future if groundwater levels in the basin "have reached some threshold of stabilization, as determined under the provisions of this GMP."[48] If stakeholders are concerned about the possibility of future out-of-basin transfers under an amended plan, fn.11 could be strengthened to include the requirement that any future out-of-basin transfer provision in an amended Plan could not result in a downward trajectory towards or below the threshold of stabilization.

While the DVGMP expressly prohibits out-of-basin transfers, it also unbundles water from the land the underlying water right is appurtenant to with the creation of shares and more easily tradeable yearly allocations, which could have the unintended consequence of undermining traditional patterns of water use and weakening the socioeconomic structure in Diamond Valley, and thereby make such out-of-basin transfers more likely in the future should the Plan be amended to allow those transfers. Therefore, if stakeholders want to prevent such transfers, it would be advisable to include standards in the current plan which would apply to all transfers and which would ensure that transfers occur only if they are consistent with the goal of protecting local community values and priorities within Diamond Valley.

b. Groundwater Rights Included and Excluded from the GMP (GMP § 8):

"The Diamond Valley Groundwater Management Plan applies to groundwater rights that serve an irrigation purpose and mining or milling rights that have an irrigation base water right."[49] Excluded from the plan are vested water rights, municipal, mining rights that do not have an irrigation base right, industrial, stock water, or existing domestic wells which are regulated directly by the State Engineer. According to the DVGMP, all of these uses combined, not including vested rights, account for less than 5% of the total groundwater appropriations and less that 3% of the total groundwater pumped in Diamond Valley at the time of the GMP

[47] *Id.* §§ 6, 7 n.11.
[48] *Id.*
[49] DVGMP, at ES.

submission to the State Engineer.[50] With the exception of vested and some stock water rights, most if not all of these exempted rights would be curtailed under strict priority administration by the State Engineer.[51] The effect of excluding those junior rights appears to be protecting them from any curtailment while subjecting the water rights covered by the plan to progressively reduced water allocations over time.

Committed groundwater rights are as follows, according to the DVGMP:

Table 1a
Committed Groundwater Rights in the Diamond Valley Hydrographic Area (HA 153)

Manner of Use	Committed Groundwater Rights (af/yr)
Commercial	3.79
Domestic	33.60
Irrigation (including DLE)	125,284.24
Mining and Milling	2148.45
Municipal	1592.06
Quasi-municipal	570.16
Stockwater	904.19
Total	130,536.49
Source: http://water.nv.gov, accessed 5/4/2018[52]	

According to the DVGMP, "[a]t present, water use by the mining industry in Diamond Valley is limited to Ruby Hill Mine located on the outskirts of the Town of Eureka ... The mine's water rights allow for pumping up to 1,000 acre-feet per year. The pumping rate varies, but has

[50] *Id.* § 18.1 n.26.
[51] *See* Nevada State Engineer Hydrographic Abstract for Diamond Valley.
[52] DVGMP, at app. D.

averaged between about 600 to 800 af/yr. Of this amount, approximately half is currently infiltrated into the alluvial aquifer via rapid infiltration basins (RIBs) located west of the mine after the water has been treated to reduce the concentration of arsenic. The remainder is consumed in the milling process and incidental uses such as dust suppression. Mine usage is currently less than one percent of the total amount of water rights permitted in the basin. Operations at Ruby Hill have been suspended for the foreseeable future, but mine dewatering and some limited water use will continue for the foreseeable future. Other potential mining use includes the Mount Hope Project located approximately 28 miles northwest of Eureka. A portion of the proposed pit is situated in Diamond Valley and some of the groundwater proposed to be pumped to dewater the pit is expected to originate from the Diamond Valley HA. This water, potentially amounting to only a few hundred acre-feet per year, would be consumed by ancillary uses at the mine, assuming, of course the project ever becomes operational. Water not consumed within the Diamond Valley portion of the mine area would need to be infiltrated or otherwise returned to the Diamond Valley aquifer(s)."[53]

The decision to limit the plan's scope to groundwater irrigation rights and mining rights with irrigation base rights means that mining rights without irrigation base rights, commercial rights, and municipal rights, which otherwise would be completely curtailed under strict priority administration, would not be subject to the significant reductions over time. The result is that reductions to irrigators under the Plan would need to be equivalent to all necessary system-wide reductions, some of which, under priority administration, would have been born by other users not covered by the Plan. The significance of that burden should be evaluated by the stakeholders in order to make a determination about whether it is acceptable to them.

It may be that mining, municipal, and commercial rights do not lend themselves to inclusion in the DVGMP, and are not significant enough in quantity to be a necessary component of the Plan's reductions. However, there may also be alternative approaches that would impose reductions more equitably across all uses, including increasing the scope of the GMP to include all users, all of whom would face reductions, while limiting unbundling and trading to irrigation rights, which could be traded among all users under the Plan. Additionally, stakeholders should evaluate the acceptability of limiting the Plan's pumping reductions to irrigation rights while permitting sales of those allocations to users that are not covered by the Plan, such as mining, commercial, and municipal users.

We recognize that it may well be reasonable to exclude non-agricultural uses, and senior vested uses, from the progressive reductions to groundwater pumping that will occur under the DVGMP due to the specific history and circumstances of groundwater usage in Diamond Valley. However, we also note that this limitation to the scope of application for the DVGMP should not be taken as a precedent to be applied generally to other groundwater basins. The soundest approach would be to start from a default position that all groundwater uses in an overdrawn basin should be subject to a groundwater management plan in order to equitably provide for a return to equilibrium and sustainability while achieving goals that have been prioritized by stakeholders. From that starting point, particular uses or classes of use might be excluded as justified by the basin's particular circumstances.

4. Authority of State Engineer to Analyze Potential for Conflicts (GMP § 9):

Section 9 provides that the GMP shall not "supersede the authority of the State Engineer to analyze or take appropriate actions regarding groundwater withdrawals that may conflict with

[53] *Id.*

existing rights or domestic wells or impacts to vested rights (or claims)." However, Section 9.1 fails to mention the public interest criterion contained in NRS 533.370. If the intent of the Plan is, as stated, to protect certain local community values and priorities, then Section 9.1 should expressly include the public interest criterion so as not to weaken the level of scrutiny from that called for under NRS 533.370. Section 9 also should be revised to make it clear that the DVGMP does not relieve the State Engineer of his duty to enforce Nevada water law to protect existing water rights and the public interest. Section 14, analyzed below, addresses the way in which the State Engineer evaluates changes in pumping under the GMP.[54]

5. Administration and Enforcement (GMP § 10):

The DVGMP would be administered and enforced by the State Engineer, who would consider the recommendations of the Advisory Board, discussed below.[55] The DVGMP would be administered pursuant to a "to-be-drafted" Memorandum of Understanding ("MOU") between the Advisory Board ("AB") and the Nevada Division of Water Resources ("DWR" or "NSE").[56] To avoid procedures being put in place that fail to adequately protect the goals of the Plan or that do not provide adequate opportunities for affected water rights holders and the concerned public to participate in decisions under the Plan, we believe that stakeholders should have an opportunity to review and have input on this MOU prior to it being executed and possibly before the DVGMP is adopted by the State Engineer.

The DVGMP further provides for the State Engineer to contract with a Water Manager who would manage the terms and conditions of the DVGMP.[57] According to the DVGMP, the Water Manager must possess a bachelor's degree in hydrology, Civil Engineering, Geology, Natural Resource Management or equivalent, as well as three years of professionally verified experience in the areas of water flow measurement, collecting, and reporting hydrologic data.[58] The Manager must also have knowledge of Nevada Water Law, hydrologic groundwater flow systems, pumping and irrigation systems.[59] According to the job description included in the DVGMP, the Water Manager would work with "limited supervision."[60] The Water Manager would manage water under the GMP and would respond to complaints, compile and analyze data, prepare budgets, and implement water management programs in Diamond Valley.[61] Stakeholders should be cautious about proceeding on the assumption that a water manager with a simple bachelor's degree would be qualified to perform the required functions, and should strongly consider requiring that automatic review by the State Engineer's Office be built in to ensure proper administration of the GMP.

The State Engineer and stakeholders should carefully consider whether the Plan's provision for appeals of Water Manager decisions to the State Engineer within 30 days of a Water Manager decision truly is an adequate safeguard against improper decisions by the Water Master that may harm water rights holders or other members of the concerned public. The requirement to initiate such an appeal process, which would follow a decision made under guidelines less protective than those contained in NRS 533.370, could amount to a significant additional burden

[54] *Id.* § 9.2.
[55] *Id.* § 10.1.
[56] *Id.* § 10.2.
[57] *Id.*
[58] *Id.* at app. E.
[59] *Id.*
[60] *Id.*
[61] *Id.*

on complainants, which stakeholders may consider unreasonable. The State Engineer and stakeholders should consider an alternative which would provide for a simple automatic State Engineer review of a Water Manager decision at the request of an affected water rights owner or aggrieved person.

6. Structure of GMP Advisory Board (GMP § 11):

Section 11 of the DVGMP provides for a seven member Advisory Board ("AB"), which initially would include one position representing mining interests, two for ranching interests with vested spring rights, four for farming interests with mixed seniority groundwater rights, and two for farming interests with senior-most groundwater rights (one of which, an initial eighth AB positon, expires as soon as the GMP is approved). A seven member board seems numerous enough, and the initial breakdown of that board appears to be sufficiently protective of agricultural interests and uses at the present time. However, the AB does not include any position for environmental or sustainability concerns or the public interest. It appears that during the Plan's development process, the potential for an elected position representing basin-wide concerns was raised. Such a position would be desirable to represent local community interests. One or two additional positions should be considered for the AB to ensure that local community and broader public interests are adequately represented and protected under the DVGMP.

We are concerned by the speed and extent to which the DVGMP provides for a transition away from this structured representation over the first eight years of the Plan's implementation. Eight years is a relatively short time in the context of Diamond Valley's historic challenges with groundwater management, its designation as a CMA, and the 35-year period during which the DVGMP is intended to result in removal of the CMA designation. Under the Plan as currently drafted, over this short period of time the Advisory Board would shift from having six of seven seats reserved for agricultural interests (one for ranching and five for farming interests of varying seniority) to having only two seats reserved for any type of agricultural interest (ranching or farming). The result would be to create five "at-large" positions which will be open to representatives of any type of user (mining, industrial, municipal, commercial, agricultural, or domestic). This creates a substantial possibility, if not likelihood, that financially powerful interests could quickly acquire a majority of water shares through the relatively free trading of water shares permitted under the Plan, and could then use their voting power to skew the membership of the AB in a direction that would no longer be protective of local irrigated agriculture, other local community priorities, or the public interest.

Additionally, according to the DVGMP, votes in elections of Advisory Board members will be "weighted according to number of Shares held by a voting rights holder."[62] Such weighting will facilitate the concentration of power to control the AB's membership and decisions in the hands of one or a few dominant water shareholders. This element of the Plan is troubling because it too would allow for a significant reduction in the representativeness of the AB, possibly resulting in ineffective representation of important community values and priorities (as well as the broader public interest) in decisions about how Diamond Valley's groundwater will be managed in the future.

One apparent implication of these provisions is that it is anticipated that the GMP will, in short order, remove any guarantee that agricultural uses or interests will continue to prevail or have any kind of controlling voice or veto power over the character of water use in Diamond Valley. By structuring the eventual membership of the AB as described above, the Plan almost

[62] *Id.* § 11.6.

assumes that the prevailing purpose of use in the Valley will shift from agriculture to a different use, which use would be represented by the at-large AB members. As we have described, this raises serious concerns about both the AB's representativeness and its reliability as an authoritative body meant to protect local community values and the public interest. We believe that the State Engineer and stakeholders should consider a modified number and system for allocating positions and votes on the Advisory Board to better ensure that local community values and the public interest are adequately represented and protected in AB decisions.

A final concern arises from the DVGMP's procedural provision for only three days' public notice of AB meetings. Such short notice raises concerns about the transparency of the decisionmaking process under the GMP and about the adequacy of opportunity for input from affected water users and the concerned public before decisions are made. While three days is the minimum notice allowed under the Nevada Open Meetings Law, since decisions made at AB meetings may have a direct and profoundly significant impact on vital property interests of water rights holders, we recommend that this provision be revised to provide more notice – at least one week in advance of AB meetings.

7. The Conversion of Groundwater Rights to Shares (GMP § 12):

Sections 12 and 13 of the DVGMP outline the process that would be required to unbundle water from the land it is associated with to both impose phased reductions in pumping and create readily transferrable annual groundwater allocations.[63] Section 12 governs the process by which shares would be created to account for seniority of each water right, thereby facilitating the unbundling of water from the right it is attached to. According to the DVGMP, shares would be allocated to each base water right covered by the plan. These shares would be tied to and unseverable from the land and well or wells described in the permit or certificate held at the time the GMP is approved.[64] "The formula used to calculate the number of Shares for each groundwater permit or certificate under the GMP shall take into account the priority date (i.e., seniority) of the permit or certificate."[65] Under the Plan, these shares are set and do not change. The State Engineer will develop a share register which is accessible by the water right owner and which is updated whenever base rights change hands.[66]

The DVGMP uses a range of priority factors from 1.0 to 0.8 to adjust the amount of shares to be assigned to groundwater rights of differing seniority. This seems to be a somewhat narrow range, when considering the historic intent and practical effect of the prior appropriation doctrine. The use of such a narrow range of differentiation in setting the value of senior versus junior water rights could be seen as, in effect, penalizing senior water rights holders for the DWR's historic series of errors in permitting the over-appropriation of groundwater in Diamond Valley.

The DVGMP provides for the calculation of the number of shares for mining groundwater rights that are based on an irrigation permit by reference to the volume of the underlying (or base) irrigation permit, not the volume of the mining permit. It is unclear to us whether this will increase, decrease, or be neutral in terms of the practical amount of water made available for use or trade on the basis of such water rights. If it will increase the practical amount of water

[63] *Id.* § 12.
[64] *Id.* § 12.2.
[65] *Id.* § 12.4.
[66] *Id.* § 12.10, 12.11.

available for mining uses or for trade, then the implications of doing so should be clearly identified and evaluated.

8. The Creation of Tradeable Yearly Allocations (GMP § 13):

Section 13 of the DVGMP sets up a system of yearly allocations of water which can be traded freely traded on an annual basis. An annual allocation is defined in the GMP as the amount of groundwater allocated to each share each year measured in acre-feet per share.[67] Each allocation is placed into a groundwater account and linked to the share register.[68] Allocations may be used for any beneficial purpose under Nevada law consistent with the GMP as long as the groundwater use is linked to and withdrawn from a Groundwater Account with a positive balance.[69] Water Allocations can be used, traded or sold, or banked for future use.[70] While there is no restriction on the amount of water that can be banked from year to year, banked water carried over to the next year will be reduced to account for natural losses based on location within the basin.[71] Annual allocations are reduced each year under the GMP to meet the pumping reductions required by the Plan in order to achieve the level of equilibrium necessary for removal of the CMA designation by the State Engineer.[72] Those reductions in allocations (or acre-feet per share) are laid out in Appendix G of the GMP.[73]

As noted above, the DVGMP appears to prevent the severability of groundwater rights from the land and well(s) that served as the basis for their permits or certificates by tying shares to the water right they are associated with.[74] However, these shares are the basis for annual allocations of groundwater which may be easily sold, traded, or leased.[75] By setting up a system under which allocations are traded on a yearly basis,[76] the GMP facilitates and encourages temporary transfers that may be readily repeated and which, therefore, in effect may amount to permanent transfers. The implications of this likely result or trend are examined below.

The DVGMP also does not limit the ability to convert groundwater from existing uses to different use in the future.[77] According to the Plan, once a water right has been redefined as shares and allocations, those allocations become more or less freely transferrable to any beneficial use recognized under Nevada law.[78] However, it is unclear whether a change in the purpose of use can be accomplished via purchase of allocations alone as suggested in Section 13.8, or whether purchase of the base right and shares associated with that allocation also is required. Currently the plan appears to address the procedure for changes in purpose of use only by way of example in footnote 29, which describes the requirement that a developer purchase not only an allocation but also the associated base water rights and shares and subsequently apply to the State Engineer for a change permit under the procedures provided for in 533.370. We

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[67] *Id.* § 13.1.
[68] *Id.* § 13.2.
[69] *Id.* § 13.8.
[70] *Id.* §§ 13.8, 13.9, 13.10.
[71] *Id.* § 13.9.
[72] *Id.* § 13.12.
[73] *Id.*
[74] *Id.* § 12.2.
[75] *Id.* §§ 13.8, 13.10, 14.8, 14.9.
[76] *Id.* § 13.
[77] *Id.* § 13.8.
[78] *Id.* § 13.8, 13.10.

recommend that a section be added to the Plan that clearly lays out the procedures and standards for changes in purpose of use for traded water allocations under the Plan's market mechanism so that they are clear and their implications can be evaluated at the outset.

Further, absent some limitation on changes in the purpose of use, it is likely that allocations will be purchased by those most easily able to afford them, which may not be irrigated agriculture operations. Once those allocations are purchased and lands are fallowed, it could be more likely that the underlying water right will be sold either to other irrigators or to different uses previously excluded from the GMP. The resulting re-allocation of water use in Diamond Valley has been left to the market to determine with little guidance in the Plan to ensure any particular desired character of the Valley that may be envisioned by stakeholders. If the a goal of the Plan is, as stated, to protect the existing socioeconomic structure of Diamond Valley, which is based on irrigated agriculture, then a restriction should be added to the Plan to limit or prevent changes in purpose of use from agriculture when allocations are purchased. A useful example of this kind of approach currently is being implemented in Ventura County, California, in which trading under the groundwater management plan is limited to trades among irrigators.[79] Such a limitation could be lifted by way of an amended plan if conditions change in the future, and at that point stakeholders envision an accepted or planned transition away from irrigated agriculture.

In relation to mining uses of groundwater, Section 13.15 of the DVGMP requires that all pit lakes "which did not possess a state or federally approved Plan of Operations by the date the GMP was approved by the State Engineer will be required to dedicate groundwater rights (with associated Shares and Allocations) to account for estimated evaporative losses" from the pit lake. "Groundwater rights dedicated for pit lake groundwater evaporation will be placed into [a] special category of the Share Register and will continue to receive annual groundwater allocations...The total number of groundwater rights dedicated must have an estimated Allocation at Year 30 of the projected reduction table in Appendix F equal to or greater than the calculated evaporation rate. The dedication of groundwater rights (and associated Allocations) to account for pit lake evaporative losses must be in place when water is first present in the pit bottom after the cessation of mine dewatering activities."[80] While accounting for evaporative loss from a pit lake is necessary and sound, this section appears to anticipate a future pit lake (perhaps associated with the Mount Hope Mine), which will require the owner or operator of the mine to buy groundwater rights and dedicate the shares and allocations based on those rights to satisfying this ET requirement. Those re-allocations will result in the conversion of some amount of irrigation water rights or allocations to mining uses. It is unclear whether the amount of water rights or allocations likely to be changed from irrigation use to a mining use to compensate for evaporative loss from a Mount Hope Mine pit lake is significant enough to raise serious concern among stakeholders. However, we believe that stakeholders and the State Engineer should seek to have that question answered before the DVGMP is adopted.

Finally, the streamlined review procedure created by the DVGMP for the review and approval of repeatable annual sales, trades, or leases of water shares does not appear to be readily accessible to the public and does not provide for input from the concerned public or

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[79] See *Preliminary Draft Groundwater Sustainability Plan for the Oxnard Subbasin, at 1-18 (Nov. 2017), available at http://fcgma.org/images/Oxnard_GSP_OPT.pdf; see also Fox Canyon Water Groundwater Management Agency, Advanced Metering Infrastructure (AMI) & Water Market, http://www.fcgma.org/component/content/article/2-uncategorised/121-advanced-metering-infrastructure-ami-water-market.*

[80] *Id.* § 13.15.

conservation community. This lack of openness or access raises significant concerns regarding the transparency of decisions concerning groundwater usage in Diamond Valley under the Plan. We believe that stakeholders should consider whether a greater degree of public access and input to such decisions, and greater public availability of information, should be required or whether it is preferable to allow anonymity to encourage water transfers.

9. GMP Approach to Well Use and Management (GMP § 14):

While allocations themselves appear to be freely tradable under the plan with little or no scrutiny, increases in pumping that result from those trades are subject to evaluation and approval by the State Engineer. According to the DVGMP, "[t]he well-use approval process in Section 14 of this GMP is the mechanism for the State Engineer to complete conflict analyses for new wells or increases in diversion rate in existing wells higher than permitted under the base right."[81] While permanent transfers will continue to be reviewed by the State Engineer under the protest procedures and standards contained in NRS 533.345, NRS 533.365, and NRS 533.370, consistent with the goal of increasing flexibility and efficiency, and consistent with the encouragement of temporary yearly transfers, Section 14 of the DVGMP replaces the regular change application review requirements and protest procedure for permanent transfers under NRS 533.345(1), NRS 533.365, and NRS 533.370 with a less thorough and less transparent process for reviewing and approving the increases in pumping associated with the transfer of groundwater allocations on a yearly basis, which is consistent with NRS 533.345's provision governing temporary transfers.[82]

This reduced level of scrutiny for pumping increases associated with transfers encouraged by the DVGMP raises some concern over the potential for inadequate protection of other water rights and the public interest. On the one hand, subjecting such pumping increases to the lesser level of scrutiny for temporary transfers makes sense because the transfers of the underlying allocations are only for one year. On the other hand, since the Plan effectively creates incentives for repetitive one-year transfers of allocations, this reduced level of scrutiny could result in the ready, casual approval of what effectively are permanent or long-term transfers without the level of scrutiny considered appropriate to safeguard other existing water rights and the public interest from the potential harmful effects of such transfers. The State Engineer and stakeholders should carefully consider the implications of establishing a system that shelters such transfers and the pumping increases that they could result in to a substantially diminished level of administrative review and public scrutiny.

As noted above, by setting up a system under which allocations are traded on a yearly basis,[83] the DVGMP facilitates and encourages temporary transfers that easily may be repeated and which therefore may effectively amount to permanent transfers. Under the Plan, these temporary transfers of one year or less could, in effect, be exempt from the State Engineer's change application standards or process, including the protest and hearing process.[84] This is because the GMP gives the State Engineer authority to determine, prior to compliance with NRS 533.365 and NRS 533.370's protest procedures and associated evidentiary submissions, whether an application to transfer water for less than one year is in the public interest and does not conflict with existing rights.[85] While this authority is consistent with Nevada law, the

[81] *Id.* § 9.2.
[82] *Id.* §§ 9.2, 13, 14.8, 14.9 n.20.
[83] *Id.* § 13.
[84] *Id.* §§ 14.8, 14.9.
[85] *Id.*

encouragement of a pattern of temporary transfers which cumulatively amount to permanent transfers would circumvent the procedures and standards contained in NRS 533.365 and NRS 533.370 that otherwise would govern permanent transfers. We are concerned that effectively exempting such transfers from rigorous consideration of potential conflicts and harms to the public interest, as well as from participation in water allocation decisions by the interested public, may subvert the legislative intent of those statutory provisions.

Stakeholders should evaluate the relative importance of promoting the transactional efficiency of water trades, on the one hand, in comparison with the potential loss of transparency, accountability, and protection of existing water rights owners and the environment, on the other hand, that could result from the Plan's encouragement of temporary transfers which would be exempt from Nevada water law's requirements for permanent change applications. Additionally, because the DVGMP could be used as a model for future similar plans in other parts of the State or in other states, the State Engineer should evaluate whether it is in the public interest to provide for such an exemption from the State Engineer's decisionmaking process, which is designed to protect existing rights and the public interest, including the environment. The State Engineer and stakeholders should consider building protections into the Plan that would guarantee the desired flexibility and efficiency while ensuring that the interested public has a voice and that changes in place or purpose of use do not harm existing water rights owners or the public interest.

Along similar lines, we are concerned by the fact that Sections 14.6 and 14.7 of the Plan describe discretionary standards to guide the State Engineer's decisionmaking authority to deny new wells applications or additional withdrawals from existing wells which appear to depart significantly from the requirements that ordinarily would apply to such decisions under NRS 533.370. Denial of an application under NRS 533.370 is mandatory, not discretionary, in the circumstances described in Sections 14.6 and 14.7 of the GMP, and such a departure from Nevada law could have the effect of allowing impacts to existing water rights and the environment that otherwise would be prohibited.[86]

Additionally, Sections 14.6 and 14.7 do not even mention, let alone provide for, any consideration of whether such applications are consistent with the public interest, which is required by NRS 533.370. This omission may be an oversight, as the public interest criterion is required under Sections 14.8 and 14.9. Nonetheless, failure to include the public interest criterion of Nevada water law in the evaluation of proposed new wells would be a significant departure from, and weakening of, the protection provided by longstanding Nevada law

This departure from the protections contained in Nevada water law exemplifies a pattern throughout the GMP of loosening the procedural and substantive requirements that Nevada water law has long adhered to for both new appropriations and changes in place of diversion, place of use, and manner of use. Those requirements were based on fundamental prudential principles meant to protect against unreasonable harmful effects and to ensure the sustainability of the State's water resources. The failure to achieve those ends in Diamond Valley is due to the DWR's past failure to apply the law rigorously, rather than to any problem with the law's requirements. Accordingly, we believe that the State Engineer and stakeholders should expressly require consideration of potential harm to the public interest in these kinds of decisions under the Plan. We also believe that stakeholders and the State Engineer should make denial of such applications mandatory where the proposed new well or withdrawal would be inconsistent with or threaten to harm the public interest.

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[86] *Id.* §§ 14.6, 14.7.

Finally, we note that the protection of wells that are maintained as required by the DVGMP from the risk of abandonment under Nevada law establishes a positive incentive for conservation and water banking.[87] Additionally, the DVGMP's provision allowing for unlimited water banking encourages conservation consistent with the goal of the Plan.[88] Both of these provisions are designed to rectify the problems, including conservation disincentives, associated with the "use it or lose it" component of the prior appropriation doctrine, and both are positive steps towards encouraging conservation in Diamond Valley which are responsive to comments made during the scoping process by interested citizens.

10. Approach to Groundwater Use Metering and Reporting (GMP § 15):

The GMP contains a number of provisions which are designed to ensure that accurate and continuous well metering occurs throughout the Valley to ensure accurate monitoring of water use.[89] Stakeholders could explore the potential for an additional provision which would assume a certain level of water use during any period of flow meter failure to encourage users to maintain properly working measuring devices and to better account for usage during breaks in meter functionality. Additionally, the Plan includes provisions governing flow metering of each well subject to the GMP to ensure that only the amount of water authorized for withdrawal is actually withdrawn, but it does not include details of a monitoring program which would give the State Engineer information about water levels that could be used to inform decisionmaking about the amount of groundwater permitted to be pumped as the Plan's effects on groundwater conditions play out. Such monitoring is referred to as an "important component of the GMP,"[90] but details of that monitoring and how it is to be used to inform State Engineer decisionmaking is not included in the Plan. For example, it is unclear whether the use of water level monitoring will be limited to a broad basin-wide scale to assess the Plan's effectiveness or whether it will also be used to ensure that individual transfers do not conflict with existing rights or threaten to be detrimental to the public interest. We recommend that the State Engineer and stakeholders consider including a monitoring provision which would both give the State Engineer a better picture of water levels at a basin-wide level and allow the State Engineer to take proactive action to prevent site-specific harms to existing water rights owners and the public interest that could result from approvals of transfers under the Plan.

11. Implications of Approach to Overdraws of Groundwater Accounts and Annual Special Assessments Penalties (GMP §§ 16 & 20.5):

The DVGMP adopts a somewhat permissive approach to a groundwater user's overdraw of an annual allocation account (i.e., the overuse of groundwater over what has been deemed properly available under the user's water rights and shares).[91] While the Plan adopts the principle that a user must obtain additional water allocations to compensate for such an overdraw, it also allows users to instead borrow against their future annual allocations.[92] By postponing the ultimate reckoning a groundwater user must face for overuse of groundwater, this approach could encourage cumulatively unmanageable imbalances between allocations

[87] *Id.* § 14.2.
[88] *Id.* § 13.9.
[89] *Id.* § 15.
[90] *Id.* § 13.12 n.18.
[91] *Id.* § 16.
[92] *Id.* § 16.3.

and actual use, and eventually require more socioeconomically disruptive corrections to be made. It also could encourage those with the greatest resources to engage in such overdrawing because they will have the greatest capacity to bear future reductions. By allowing for, and perhaps inadvertently incentivizing a certain amount of overuse by those with the greatest water rights and shares, this component of the Plan may unintentionally perpetuate the overpumping of groundwater in Diamond Valley and undercut the goals of the GMP.

The relatively permissive approach to the overdraw of a groundwater account contrasts with the strict punitive approach taken by the GMP toward any delay in water users' payment of annual assessments for the funding of the GMP and the Water Manager who will administer it.[93] The Plan will not allow any annual groundwater allocation whatsoever to the account of any groundwater user who has paid not their annual assessment, and immediately once the assessment's due date passes the Plan begins to impose progressive monthly reductions, or depreciations, to the amount of the groundwater allocation that may be allowed to the account after late payment is made.[94]

There may be sound reasons for providing some flexibility to allow limited overdraws of groundwater accounts over relatively short timeframes in order to deal with exceptional dry years. And there may be a need to ensure that the duty to pay annual assessments is taken seriously in order to ensure that there is adequate funding to implement the Plan. Nonetheless, the contrast between the former and the latter seems likely to bear hardest on water rights holders in Diamond Valley who already are most vulnerable either because they will have the smallest amount of water shares under the Plan or because they are the poorest financially, or both. We therefore suggest that, before adopting the Draft DVGMP in its present form, the stakeholders and State Engineer consider whether some modification of these provisions would better comport with the Plan's stated goal of protecting the socioeconomic structure of Diamond Valley.

12. Treatment of Groundwater Uses Excluded from GMP (GMP § 18):

Pursuant to Section 18.2 of the DVGMP, groundwater uses which are excluded from the Plan, such as vested, mining rights without an irrigation base right, commercial, stockwater rights, and domestic wells, shall remain under the provisions of Title 48 of the Nevada Revised Statutes and any applications to change place of use or diversion or purpose of use would proceed before the State Engineer. Because they are excluded from the Plan, these uses also would not receive shares or allocations.[95] As such, they also would not be subject to the reductions contemplated by the plan as discussed above.

However, the Plan does contemplate the conversion of water shares and allocations from uses covered by the GMP to uses that were not covered by the GMP at the time of its approval. To at least some extent groundwater rights under the GMP can be used for so-called "excluded" uses, but as a consequence those previously "excluded" uses then would become at least partially subject to the requirements of the GMP.[96] In the event of such a change in purpose of use, only the amount of an existing water allocation under the Plan that is converted to the "excluded" use would be subject to the GMP.

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[93] *Compare* DVGMP § 16 *with* § 20.5.
[94] *Id.* § 20.5.
[95] DVGMP § 18.2.
[96] *Id.* § 18.3.

The conversion of an allocation based on an irrigation groundwater right to another, "excluded," use is allowed for, and, if permanent, requires the ordinary application and permitting process of the NSE under NRS 533.345, NRS 533.365, and NRS 533.370.[97] If approved, then the new use (which previously would have been considered "excluded") would fall under the GMP and its requirements.[98] For example, in the event that allocations under the Plan are used for development projects, the State Engineer would evaluate what base rights would need to be purchased in order to supply the project for its life, accounting for the planned reductions outlined in Appendix G of the Plan.[99] We do not necessarily think there is anything problematic about the Plan's approach to such conversions from uncovered to covered types of groundwater uses, but we do think it is important to ensure that the implications of such conversions and how the GMP would apply to the new uses are openly analyzed. In particular, we hope that the stakeholders have been given an opportunity and the necessary information to evaluate whether it is equitable to exempt non-irrigation uses from the reductions imposed by the Plan while allowing those same uses to purchase irrigation rights that are covered by the Plan for conversion to a previously exempted use.

The GMP makes recommendations to encourage groundwater conservation in the uses that are excluded from the Plan, but these recommendations are simply aspirational goals as those excluded users are not bound by the Plan.[100]

13. Non-Consumptive Uses (GMP § 19):

Section 19.1 of the DVGMP provides that non-consumptive uses of groundwater in Diamond Valley such as mine pit dewatering, will remain under the authority of the State Engineer. However, Section 19.2 suggests that any consumptive use component of this right will require an allocation under the GMP. It would be desirable to clarify that Section 19 applies only to those mining rights with irrigation base rights as all other mining uses are exempted from the GMP. Section 19.3 contains a provision which encourages, but does not require, that return flows from these non-consumptive uses provide a net benefit to the aquifer. It would be desirable to make this provision a requirement as opposed to a suggestion. Similarly, it would be helpful to describe measures in detail that would provide such a net benefit to the aquifer in the Plan, so that the Plan itself provides guidance as to how to achieve and/or manage such return flows in a manner that enhances the probability that their quality and quantity are consistent with Nevada law and the goals of the DVGMP.

14. Encouragement of Groundwater Conversion from Irrigation to Mining Uses (GMP §§ 13.15, 20.6, 21):

One of the goals listed in Section 6 of the DVGMP is to "[p]reserve the socio-economic structure of Diamond Valley and southern Eureka County."[101] However, the GMP not only contemplates relinquishment and conversion of groundwater rights and allocations from irrigation uses to other uses, it appears to facilitate and perhaps incentivize conversions to mining uses in particular. This is reflected in the Plan's allowance for a mining operator to forego the ordinary payment of the assessment that would be due for pit lakes or other man-made surface water bodies by dedicating groundwater rights and allocations at a 2:1 ratio to the actual amount of

[97] *Id.* § 18.3 n.29.
[98] *Id.*
[99] *Id.*
[100] *Id.* § 18.4.
[101] DVGMP § 6.

evaporative loss from such bodies. The Plan further provides that the amount of such dedicated rights and allocations that exceeds the amount of evaporative loss is to be made available and equally distributed to the remaining groundwater users under the GMP.[102]

The implication of this provision is that the developers of the DVGMP anticipate the conversion of water rights from irrigation to mining operations, and that they have created this 2:1 conversion option with any excess left from the converted rights going to all remaining groundwater users under the Plan (which would be irrigators) as an incentive for such conversions or to soften potential opposition among remaining irrigators to such conversions.

Additionally, as noted above, Section 13 of the DVGMP, which addresses and appears to anticipate a future pit lake (perhaps associated with the Mount Hope Mine), and provides for necessary reallocations, would facilitate conversion of irrigation rights to mining uses. While the Plan does not expressly refer to the Mount Hope Mine project, it does acknowledge the presence of an ongoing effort by the Mount Hope Mine's owner, General Moly, Inc., to work with the Eureka Producers Cooperative to fund a "Diamond Valley Sustainability Trust" for the purpose of encouraging relinquishment or retirement of groundwater rights or allocations. [103] It also is common knowledge that the DVGMP has been developed at the same time as the groundwater ramifications of General Moly's Mount Hope Mine project is being litigated. So, it seems reasonable to assume that the developers of the DVGMP bore that project in mind when addressing the potential conversion of agricultural shares to mining uses, including use to offset evaporative losses from mine pit lakes.

These provisions related to mining in the Plan itself, contained in Sections 8, 13, 20, and 21, coupled with the recent litigation involving Eureka County and General Moly, suggest that the Plan has been developed with such conversion in mind. While the mining provisions of the Plan appear to have been drafted with General Moly's Mount Hope Mine in mind, it is unclear whether the intent is to more broadly encourage mining at the expense of irrigation.[104] Additionally, it is unclear whether the amount of water needed to supply the Mount Hope Mine pit lake, and any other anticipated mining uses, would be significant. Allowing for those uncertainties, we believe it is important for the State Engineer and stakeholders to address the potential for and carefully consider the implications of the transfer of a large amount of water to that mine or other mining operations under the Plan before the DVGMP is adopted.

15. Implications for the Local Agricultural Economy and Culture of Anticipated Conversion from Existing Irrigation Uses (GMP § 21, 22, 23):

As noted above, it appears clear that the DVGMP contemplates the conversion of agricultural rights to other uses as time passes.[105] Notwithstanding this anticipated conversion, and despite the fact that one of the Plan's stated goals is to protect the socioeconomic structure of Diamond Valley, the DVGMP does not provide protections to local communities that may be concerned about socioeconomic impacts of such conversions. The omission of any proactive protections against potential harms from such conversions to the agriculture-based community in Diamond Valley, despite the fact that preservation of the socioeconomic structure of Diamond Valley is listed as one of the Plan's goals, raises concerns about the adequacy of the DVGMP because during scoping stakeholders expressed substantial concern about the protection of Diamond

[102] *Id.* § 20.6.
[103] *Id.* § 21.1 n. 31.
[104] *Id.* § 21.1 n.31.
[105] *Id.* § 22.

Valley's socioeconomic structure. Potential harms from the conversion of agricultural rights to other uses include impacts to the local tax base, the agrarian culture, the local economy and job base, and air quality due to dust emissions from fallowed land. Given the fact that agriculture is, and for a considerable time has been, the dominant basis of the Diamond Valley economy and that agriculture sustains and defines the character of the rural community in Diamond Valley, we believe that stakeholders and the State Engineer should consider making the Plan more holistic by adding provisions designed to proactively ensure the local agricultural economy's continued existence. In addition to the direct gross value of Diamond Valley's agricultural output, the value added in terms of employment, local taxes, income growth, and social resilience must be taken into account in evaluating the relative importance of sustaining Diamond Valley's agricultural use of groundwater.

Potential protections for local agricultural economies could include ensuring greater representation of that sector's voice on the AB beyond the initial 8 year period covered in the Plan, additional incentives to promoter agriculture to agriculture trading, a partial or total limitation under the Plan to trading between agricultural users, and limitations on trading to prevent an excessive concentration of pumping in one part of the basin that would create problematic impacts. Additionally, funding for economic development in Diamond Valley could be used to alleviate the negative impact on local communities that the transition away from irrigated agriculture likely would cause. Such funding might be dedicated to supporting crop conversion to less water intensive crops and use of efficient irrigation technology, which could enable existing agricultural users to remain operational while engaging in trading of unused allocations. With proper planning and funding, the conversion of some water allocations or shares from agricultural to non-agricultural uses need not lead to an unwanted and unintended decline in the agricultural economy of Diamond Valley. Pilot programs that have been developed for other basins in the West could serve as models for such conversion, but they would require funding from some source such as the State or a water fund funded by assessments under the Plan. Allocation trading fees could also be used to help fund such a program if set at sufficient rates.

16. Implications for the Environment of Anticipated Conversion from Existing Irrigation Uses (GMP §§ 21, 22, & 23):

As noted above, the DVGMP acknowledges that it appears likely that the Plan will facilitate transfers from irrigated agriculture to other uses. The DVGMP's inclusion of fallow land stabilization among the needs to be funded through the Plan's annual assessments reflects an anticipation that some amount of the land and water rights currently being used for irrigated agriculture in Diamond Valley will go out of production.[106] This expectation is also made explicit in the sections addressing the manner of relinquishing existing groundwater rights or allocations and the treatment of such rights or allocations.[107] It also is reflected in the Plan's acknowledgement of the likelihood that Diamond Valley lands will be retired from irrigation. Despite this expectation, the GMP does not address the implications for the fallowing of irrigated land on wildlife habitat or air quality.

While the Plan expresses a preference for some continued beneficial use of retired lands, the Plan makes no concrete commitment and does not provide for any specific action to ensure such continued beneficial use.[108] It does not mandate that owners of fallow lands plant cover

[106] *Id.* § 20.4.
[107] *Id.* § 21.
[108] *Id.* § 22.

crops and control weeds and rodents.[109] Without concrete requirements, it is unlikely that any environmental protections for habitat on fallowed land will be realized.

We believe that, in the interest of providing a more holistic level of protection for Diamond Valley, stakeholders and the State Engineer should explore the possibility for additional provisions requiring specific actions to be taken and/or plans to be developed to maintain retired lands, in order to protect existing wildlife habitat and environmental integrity. Examples and guidance are available in an Environmental Defense Fund report that includes suggested water market reforms which could be used to provide protection for the environment in the context of water trading.[110] Those reforms include incentivizing environmental protection with the creation of an environmental water fund using transfer fees, including protections for local water uses that might be harmed by changes in place of use, and promotion of exchanges that achieve multiple objectives.[111]

On a broader level, the DVGMP contains only minimal acknowledgment of the environmental effects of existing overpumping of groundwater in Diamond Valley or of the various potential changes in use that may occur as a result of the water market created by the Plan. Similarly, the Plan does not address whether or how environmental needs or uses will be served by the market system established under the GMP. We urge the State Engineer and stakeholders to revise the DVGMP to include meaningful consideration of current environmental conditions and the potential environmental effects of future water management decisions, and to include provisions designed to incentivize environmentally protective measures.

17. Procedure for Amending or Discontinuing the GMP (GMP § 26):

Pursuant to Section 26 and NRS 534.037(5), the GMP can be amended or discontinued by the same procedure required for the Plan's initial proposal and approval. This means that a majority of water rights holders' signatures are required, after which the proposed amendment or termination of the GMP is presented to the State Engineer, who then must hold a properly noticed hearing to take testimony on the proposal. The process would require the signatures of "a majority of the holders of permits or certificates to appropriate water in the basin." NRS 534.037(1). This statutory language is different than the weighting of votes of water rights or shares that is provided for in the Plan for certain types of decisions or actions under the Plan. Imposing this more inclusive, and burdensome, requirement appears to be protective of current water rights owners who may transfer allocations while maintaining their underlying water rights, which would guarantee their right to vote on whether to amend the Plan.

The DVGMP provides that changes to Nevada law shall not be deemed to be amendments to the DVGMP regardless of how they affect aspects of the Plan. We believe that, before adopting the DVGMP, the State Engineer and stakeholders should consider what sorts of changes to Nevada water law could alter the operation or effects of the Plan in ways that raise significant concerns, whether such changes to the law are reasonably likely, and if so whether they warrant modification of the Plan to protect against unintended consequences under the DVGMP from such changes in Nevada law.

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[109] *Id.* § 22.4.
[110] Environmental Defense Fund, Better Access. Healthier Environment. Prosperous Communities. Recommended Reforms for the California Water Market (2016).
[111] *Id.*

CONCLUSION AND SUMMARY OF RECOMMENDATIONS

As mentioned at the outset, this Report's public interest-oriented analysis is meant to be a supportive tool to assist decision makers in preparing the best plan possible for the management of groundwater in Diamond Valley. Overall the DVGMP appears to be a laudable, but not fully adequate, water marketing plan that needs some revision and, in places, completion in order to meet its stated goals and adequately protect the public interest.

To begin with, we recommend that stakeholders and the State Engineer consider alternatives to water marketing for comparative purposes to ensure that the best possible approach, or combination of approaches, is taken in Diamond Valley. It does not appear that any such alternatives were considered either during scoping or in the development of the DVGMP.

As explained above in this Report's analysis of the Plan's strengths and weaknesses, it is important for the stakeholders and the State Engineer to consider making revisions to address the potential unintended consequences of: (1) limiting the scope of the DVGMP and its pumping reductions to groundwater irrigation rights and mining rights with irrigation base rights; (2) not including any position on the AB to represent the public interest, including local community interests and environmental concerns;; (3) the built-in transition away from guaranteed agricultural representation to at-large positions that may be held by whatever individual or entity might purchase water for other uses under the Plan; (4) diminished State Engineer and public review of changes in purpose and place of use that will result from encouraging the trading of allocations on a temporary annual basis; (5) allowing the market to determine what dominant purpose of use persists or emerges in Diamond Valley; (6) failure to provide for environmental protection or incentives for environmentally friendly uses; and (7) the potential for unbundling water from land to create increasing pressures for out-of-basin transfers. Stakeholders should consider incorporating additional constraints into the DVGMP that would be designed to ensure that potential unintended consequences are avoided and the goals outlined in the plan are realized so that the public interest is adequately protected.

To protect against such unintended consequences, we recommend that the stakeholders and State Engineer strongly consider revising parts of the Plan to better: (1) ensure that the complete range of values and goals related to groundwater in the basin are addressed and protected; (2) ensure adequate representation of agricultural water uses and the public interest on the Advisory Board over the long-term; (3) provide for transparency of the terms and procedures under which the proposed Water Manager will make decisions regarding proposed transfers and other matters affecting groundwater use in the Valley; and (4) ensure that Diamond Valley water users and residents have an adequate opportunity to be heard and a meaningful role in decisionmaking processes affecting groundwater use in the Valley.

Mark Moyle Farms LLC.

P.O. Box 842
Fallon Nevada 89407

October 29, 2018

Dept. of Conservation and Natural Resources
Division of Water Resources
901 South Stewart Street, Suit 2002
Carson City, Nevada 89701-5250

Written Testimony in Support of the Diamond Valley Groundwater Management Plan,DVGMP. On behalf of Mark Moyle Farms LLC. and Diamond Natural Resources Protective and Conservation Association.

Testimony provided by Mark S Moyle.

I would like to take a moment to thank the many people who have worked so hard for so long to develop and create the DVGMP. We have been fortunate to have so many talented individuals working on this, the first of its kind GMP, in the State of Nevada.

It is important to keep in mind that this DVGMP was developed specifically for Diamond Valley.

Diamond Valley has its own unique circumstances and conditions that this DVGMP has been designed for. It is not intended to deal with other areas of the State of Nevada and their challenges. Because this DVGMP is the first of its kind in Nevada there will no doubt be concerns about how this plan might impact the rest of the State. I am sure that there will be more GMPs developed in the future that may adopt some of the features in the DVGMP, but the future GMPs will have to deal with different conditions and situations. It is my concern that interests outside of Diamond Valley, fearful of the unknown, may try to interfere with what has been developed for this unique area. We do welcome outside constructive criticism and input as long as it has the intention of making this plan better for its intended purpose.

There have been hundreds of hours of meetings and discussions as well as intense debate that have gone into the development of the DVGMP. There has been a lot of compromise and consideration given to the many issues that this plan needs to address. The goal has always been to get consensus on the issues at hand. We did not always get consensus, but we did get the majority to agree before we moved on.

The goal in the development of the DVGMP is to reduce groundwater pumping in a manner that will do the least damage to: the water users directly, the local economy, the environment in regards to weed and rodent problems, and return the groundwater resource back to a sustainable level.

The DVGMP is not perfect in every way. It comes at a cost to all Irrigators who will cut their pumping by 30% in the first ten years that the plan is implemented. The Irrigators that support this plan understand that we all need to sacrifice for the long-term benefit of the community and the long-term continued success of the farming industry. Diamond Valley is the heart of southern Eureka County's economy. The few Irrigators who are not in favor of this plan seem only to be able to focus on what their sacrifice would be and could care less about the community as a whole; additionally, some are motivated by political reasons. Because implementation of the DVGMP will come at a cost to so many, it is understandable that there will be people who will not support it.

Strong, willing, and giving people who understand that it takes community effort to sustain and survive built Diamond Valley. It took a huge group effort to get the electric power to Diamond Valley. It took a group effort to work on the power cost increase challenge that occurred in the early 1980's. It took a group effort to develop the Weed and Gopher Control Districts. It took a group effort to get the roads paved in Diamond Valley. It took the same group effort to develop the DVGMP. The purpose of the DVGMP is to continue the ongoing success of the entire southern Eureka County area and the enterprises that exists there. The long time residents of Diamond Valley have endured a lot of challenges in the past and have worked together to solve them. I am confident in the resilience of the people who have made a living here. I would encourage them to be aware of some residents who have demonstrated by their actions their intent to only take from this community.

There are only two options, strict curtailment by priority or adopting the DVGMP.

The DVGMP is the best solution to an extremely difficult situation that was created by actions and conditions in the past. It is an extremely proactive solution created by the people who are the most impacted. The DVGMP has been developed with input and participation from the agency responsible for its implementation, the Nevada Division of Water Resources. I am extremely grateful for all who have worked and participated on the development of this DVGMP.

It is now time to put the DVGMP into effect so we can insure that the water resource we all depend on will be preserved for the future.

Thank you for your consideration,

Mark S Moyle
Managing Member of Mark Moyle Farms, LLC
President of the Board of DNRPCA

October 25, 2018

Dear Jason King

My name is William Norton and I am a second generation farmer here in Diamond Valley. My family has lived here for over 40 years since 1978. Eureka County is a wonderful place to live and raise up a family.

I would like to start off letting you know that I am in favor of the GMP presented to your office. Under the plan I have an opportunity to manage to the reduction of water usage. If the GMP is not approved and curtailment were to take place I would lose everything that I have worked for these past 40 years.

One of my main reasons for working on the GMP for the past 3 years is to help make decisions for the entire community. Once again if curtailment were to take place many farmers and their families would be out of business and this would affect the community in a negative way. Property values would diminish greatly affecting the community as a whole.

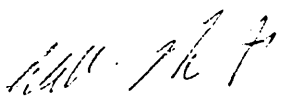
Under the plan I believe that most farmers would be able to still make a living and contribute to the community.

When my family purchased the property 40 years ago we were under the understanding that as long as we used our water rights we would not lose them. Had I have known that there was a good chance that I could lose everything that I have built I would never have settled here in Eureka.

I would like to say that I appreciate all of the input and help in developing the plan from the Division of Water Resources. I believe this plan will be a great benefit to the town of Eureka and the entire community and other farmers like myself.

Thank you again for your help and support,

William Norton



October 28, 2018

Nevada Division of Water Resources

901 South Stewart Street, Suite 2002

Carson City, Nevada 89701

Attention: Jason King, State Water Engineer

Dear Mr. King,

When I came to Diamond Valley, 60 years ago, there were 80 to 100 acres of hay. Now there are close to 20,000 acres. During the 1960's, we were clearing brush and drilling wells. We used diesel and propane engines to pump water. We mostly raised grain to get beneficial use and deeds to our land. Many places changed hands several times.

In 1972, we got electric power and the price of hay improved. In the early 1980's, we had three years of monsoon rain, higher power rates, high interest rates, and the invasion of rodents. Over the years, much time and energy has been spent just to maintain some control. Despite all of the problems, we are now faced with the biggest challenge of all – water. It seems that we have only two possible choices, curtailment or the ground water management plan.

If the choice is curtailment, what will happen? Our power rates will increase. County revenue will decrease; consequently, leaving roads to be poorly maintained. Farms with junior water rights will be overrun with rodents and weeds. A return to these difficult experiences of the past is not a welcomed choice.

It has taken so many years of struggle to develop Diamond Valley that I am very willing to share some water as outlined in the Diamond Valley Ground Water Management Plan. I applaud all of the senior water right holders who are willing to share water in order for Diamond Valley to continue to prosper.

I want to offer a special thanks to the committee members who have worked diligently for several years to develop the Diamond Valley Ground Water Management Plan. My best hope is that this plan will allow the viability of all of the farms; thus, keeping Diamond Valley a beautiful place to live and work as it is now.

Sincerely,

Donald Frank Palmore

Donald Frank Palmore

Farmer, Diamond Valley

Nevada Division of Water Resources
Diamond Valley Ground Water Management Plan Hearing, October 30th, 2018.

Written Statement:

I Marty Plaskett, a life long farmer in Diamond Valley, support the implementation of the Ground water Management Plan (GMP or Plan) 100 percent because of the following reasons:

- The plan was created and accepted by a majority of those it will affect, through many years of deliberation and design input from the regulatory side of plan management. A local solution, by locals, with the State Engineer's oversight to bring the basin into balance and remove the critical management area designation.

- The pumping reduction schedule is based on water right seniority, favors ultimate water use efficiency. better management practices and rewards water conservation with banking credits. I have proven to myself, on my own farm in the last two years, that the plan will not affect my yields and ability to produce a quality product. Better efficiency and better management along with advances in farming in the coming years will offset the pumping reductions in my operation.

- The Plan was purposely designed to keep the community whole, allowing all users access to water and balancing the basin for ultimate health of the aquifer. The tax base is maintained, and all the social economic units involved with a community are not disrupted by a dwindling population that would occur with our alternative option, curtailment of pumping.

- The Plan is flexible in that it has set benchmark reductions, with yearly allocations adjusted through well monitoring data, annual precipitation values, and conservation relief. Until a better solution rises, it is the most logical path toward basin water balance.

In closing it is important to recognize and appreciate all the hours in meetings, time traveling, arguing and refining a solution to a problem that has been festering for 50 years:
Thank you;
State Engineer and staff for your involvement in Plan structure and management.
Eureka County for allowing our resource manager to keep the ball rolling,"uphill", which is a gross understatement.
Eureka County Hydrology expert for arming us with the data to quantify our efforts.
DNRPCA members.
GMP committee.
Conservation District support.
There is no "I" in this "Team" dedicated to making Diamond Valley sustainable.

Marty Plaskett

Marty Plaskett

Jason King
State Engineer
Nevada Division of Water Resources
901 S. Stewart St., Suite 2002
Carson City, NV 89701
Office Phone: (775) 684-2800
Office Fax: (775) 684-2811

11-02-18

COMMENTS TO THE DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN

Dear Sir,

I am a member of the advisory board for the Diamond Valley GMP representing the vested water rights holders. I have vested and junior water rights in the north end of Diamond Valley. I am opposed the Diamond Valley Groundwater Management Plan as written. It is my belief that it violates NRS 533 which expressly protects the rights of vested water right holders. There is no provision made to mitigate vested rights and the future impact on vested water right holders is unknown. Also, as you know the adjudication process is still on going at this time.

I also disagree with the provision to increase the deduction made to the banking of water north of the CCC road due to phreatophytes. According to the USGS report my property lays outside of the phreatophyte zone yet I am to receive the full deduction as if it was inside of the phreatophyte zone.

Sincerely,

Ira and Montira Renner
HC 30 Box 343
Spring Creek, NV 89815
775-744-4342
imrenner@yahoo.com

RUBY HILL
MINING COMPANY LLC

October 29, 2018

Jason King, PE, State Engineer
Nevada Division of Water Resources
901 South Stewart Street, Suite 2002
Carson City, Nevada 89701

Re: Diamond Valley Groundwater Management Plan

Dear Mr. King,

The purpose of this letter is to affirm Ruby Hill Mining Company, LLC's (RHMC) strong support of the Diamond Valley Groundwater Management Plan (GMP).

As you may be aware, RHMC purchased the Ruby Hill Mine in Eureka, Nevada in late 2015 and since then has been actively involved with the strategic development of the GMP efforts.

The GMP is the most equitable tool to protect the water supply in the Diamond Valley Basin (Basin) while still allowing users access to a resource that is absolutely fundamental to the continued wellbeing and socio-economic structure of Diamond Valley and southern Eureka County.

Implementation of the GMP is permitted by law (NRS 534.037). The GMP concept was adopted by the state legislative to give the State Engineer a tool to avoid the strict application of curtailment by priority in situations where a different approach is warranted. RHMC believes that the Basin is one of these situations. As such we urge your office to take advantage of the opportunity afforded under Nevada law and this well thought out water management tool to protect and restore the Basin instead of imposing strict curtailment by priority - a measure that would no doubt have draconian, devastating, and likely irreversible implications for Eureka County and its residents.

Unlike curtailment by priority, the GMP proposes to reduce water use over time (with a significant reduction being applied on year 1) through the implementation of a share system that assigns annual allocation of water based on a formula that takes priority (seniority) into account. The share system proposes to create a free and open water market designed to stabilize groundwater levels by encouraging water saving efficiencies and behaviour (like banking) through economics – replacing the current "use it or lose it" principle with "use it, save it, or sell it". The GMP also proposes to impose rigorous tracking mechanisms to ensure that water usage does not exceed the permitted amount annually per share.

The Ruby Hill Mine has been a significant economic force in Eureka County for many years. The identified reserves of the mine are significant, and we anticipate that RHMC will continue to be an important economic driver in the area. However, our future is dependent on having water available for our mine over many years. We strongly believe that the GMP will achieve the goal of expanding economic development and protecting vested interests while at the same time balancing water pumpage, and protecting the long term wellbeing of the Basin and the residents of southern Eureka County.

Please do not hesitate to contact us should you have any questions or concerns on the views expressed above, or our support of the GMP generally.

Sincerely,

Joseph Martini

Director of Environmental Affairs

Cc: Reed A. Cozens, P.E., Resource Concepts, Inc.

IN THE OFFICE OF THE STATE ENGINEER
OF THE STATE OF NEVADA

IN THE MATTER OF THE PETITION FOR APPROVAL OF THE PROPOSED DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN.

SADLER RANCH, LLC'S OBJECTIONS TO THE DIAMOND VALLEY GROUNDWATER MANAGEMENT PLAN

COMES NOW, Sadler Ranch, LLC ("Sadler Ranch") by and through its attorneys of record, PAUL G. TAGGART, ESQ. and DAVID H. RIGDON, ESQ., of the law firm of TAGGART & TAGGART, LTD., and hereby respectfully submits its objections to the proposed Diamond Valley Groundwater Management Plan ("GMP").

INTRODUCTION

The proposed GMP fails to adequately protect the Diamond Valley groundwater aquifer and the vested, domestic, and other water rights holders who rely on it. The proposed GMP also fails to meet the requirements of NRS 534.037 because it is not supported by substantial evidence showing that its implementation will result in the removal of the basin's designation as a critical management area ("CMA"). The proposed reductions in pumping would allow perpetual drawdown of water levels in the basin, beyond the life of the plan, without providing any mitigation for the harm done to pre-statutory vested water rights holders.

The proposed GMP violates other important provisions of Nevada's water laws. For example, the proposed GMP improperly allows water users to "bank" unused water in the aquifer for use in later years despite the fact that no application for an Aquifer Storage and Recovery ("ASR") project has ever been applied for or approved by the State Engineer and that this water is not available for storage because it is water allocated in excess of the basin's perennial yield. The proposed GMP also improperly limits the State Engineer's ability to make and enforce needed regulations for the basin.

Because the GMP fails to meet the statutory criteria for approval and violates important provisions of Nevada's existing water law, it should not be approved.

JURISDICTION AND STANDING

The State Engineer is authorized under NRS 534.037 to consider the adoption of a groundwater management plan upon submission of a petition requesting the same signed by a majority of the holders of water rights within the basin. Upon receipt of such a petition, the State Engineer is required to hold a hearing to take testimony and consider evidence for and against the plan. On October 1, 2018, the State Engineer issued a notice indicating that he had received a petition requesting approval of the proposed GMP and setting a date for a hearing. Accordingly, the State Engineer has jurisdiction to consider Sadler Ranch's objections to the proposed GMP.

Sadler Ranch is the owner and operator of one of the oldest continuously operated ranches in Nevada. The ranch is located in the Diamond Valley hydrographic basin and was established by Reinhold Sadler who served as governor of Nevada from 1896 to 1903. The ranch consists of more than 3,000 acres of privately held property. Over 2,000 acres of the ranch was historically irrigated with water from the Big Shipley and Indian Camp Springs. The State Engineer has previously determined that the water from these springs is hydrologically connected to the groundwater aquifer in Diamond Valley and that pumping in the aquifer by holders of junior priority permits has detrimentally impacted the flow of Sadler Ranch's springs.[1] In addition to its pre-statutory vested rights Sadler Ranch owns groundwater permits issued by the State Engineer that may be subject to the provisions of the GMP.[2] Accordingly, Sadler Ranch has standing to file the instant objections, provide testimony and evidence at the GMP hearing, and appeal any approval of the GMP pursuant to the provisions of NRS 534.037(4) and NRS 533.450.

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[1] *See* State Engineer Ruling 6290.

[2] The question of whether the proposed GMP can be involuntarily enforced against holders of permits who did not consent to the plan is an open question of law. Sadler Ranch expressly reserves its right to challenge enforcement of the provisions of the proposed GMP against its state-issued water rights permits.

STANDARD OF REVIEW

Under NRS 534.037(1) a groundwater management plan is required to include "the necessary steps for removal of the basin's designation as a critical management area." A basin is designated as a CMA when "withdrawals of groundwater consistently exceed the perennial yield of the basin."[3] Accordingly, to approve a groundwater management plan, the State Engineer must determine that the plan will result in withdrawals of groundwater from the basin being less than the basin's perennial yield.

All State Engineer determinations must be supported by substantial evidence in the record.[4] Substantial evidence is evidence that a reasonable person would accept as adequate to support a conclusion."[5] The Nevada Supreme Court has ruled that the substantial evidence standard of review is reliant on the fullness and fairness of the proceedings in front of the State Engineer and includes a requirement that the State Engineer clearly resolve all objections raised and provide detailed findings regarding those objections.[6]

Therefore, to approve the proposed GMP, the State Engineer must specifically reference substantial evidence in the record demonstrating that the implementation of the GMP will result in withdrawals of water in the basin consistently remaining below the 30,000 acre-feet/year ("afy") perennial yield of the basin previously established by the State Engineer.[7] Any proposed groundwater management plan must also comply with the existing water law statutes.

In these proceedings the State Engineer is acting in a quasi-judicial capacity. Quasi-judicial proceedings "are those proceedings having a judicial character that are performed by administrative agencies."[8] The functions of a quasi-judicial proceeding include "hearing the parties in open forum, taking the matter under advisement, deliberating, writing a written decision,

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[3] NRS 534.110(7).
[4] *Revert v. Ray*, 95 Nev. 782, 786, 603 P.2d 262, 264 (1979).
[5] *Pyramid Lake Paiute Tribe of Indians v. Ricci*, 126 Nev. 521, 525, 245 P.3d 1145, 1148 (2010).
[6] *Revert*, 95 Nev. at 787, 603 P.2d at 264-65.
[7] *See* Nevada Division of Water Resources, Hydrographic Area Summary for Basin 153 (Diamond Valley).
[8] *Stockmeier v. Nevada Dep't of Corr. Psychological Review Panel*, 122 Nev. 384, 390, 135 P.3d 220, 223 (2006).

and making that decision available to the parties and to the public."[9] Like a judge in a court of law, the agency's function in a quasi-judicial proceeding is *not* to act as an advocate for one party, but to judge the request before it in a neutral and impartial manner.

In State Engineer proceedings, the burden of proof is on the party requesting approval of its application or plan.[10] Accordingly, the proponents of the GMP bear the burden of providing evidence demonstrating that the GMP will reduce withdrawals of water in the basin below the established perennial yield. The proponents cannot rely on the State Engineer to provide this evidence for them, or to fill in evidentiary gaps. Instead, they, themselves, must provide all the evidence required to meet the burden. In addition, such evidence must be relevant, authenticated, and credible. Based on the evidence included with the proposed GMP, the proponents have failed to meet their burden.[11]

OBJECTIONS

The proposed GMP, as submitted, does not contain the necessary steps for removal of the CMA designation from Diamond Valley. First, the proposed pumping reductions are inadequate and authorize continued groundwater mining. Second, the proposed GMP continues to harm holders of senior vested rights in the basin. Third, several provisions of the proposed GMP violate Nevada's existing water laws.

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[9] *Ariz. P.C., Inc. v. Ariz. Bd. of Tax App., Div. 1*, 558 P.2d 697, 699 (Ariz. 1978).

[10] *JM v. Dep't of Family Servs*, 922 P.2d 219, 221 (Wyo. 1996) ("The general rule in administrative law is that, unless a statute otherwise assigns the burden of proof, the proponent of an order has the burden of proof.") (citing BERNARD SCHWARTZ, ADMINISTRATIVE LAW § 7.8 (2d ed. 1984)).

[11] The State Engineer has not established a formal evidence exchange prior to the hearing or required pre-hearing briefs from the parties. Accordingly, the only evidence that Sadler Ranch has had the opportunity to review is the proposed GMP and the appendices attached thereto.

I. The GMP's proposed pumping reductions are inadequate because they will not cause withdrawals in the basin to be reduced below the established perennial yield, were not developed using the groundwater model, and have no monitoring plan or triggers and thresholds to guide future management decisions.

For over 45 years pumping in Diamond Valley has consistently exceeded the basin's perennial yield.[12] Even under the most aggressive pumping reduction schedule provided in the GMP, at the end of the plan (35 years from now) withdrawals in the basin will still exceed the available water. This continuing deficit means that the proposed GMP does not meet the statutory mandate requiring withdrawals be less than the perennial yield. The purpose for the requirement that a proposed GMP bring withdrawals in a basin below the perennial yield is to ensure that groundwater levels will stabilize as a result of the implementation of the plan. Otherwise, groundwater mining of the aquifer will continue indefinitely and senior water right holders will continue to be harmed.

The proposed GMP states that the plan "must set forth the necessary steps for removal of the basin's designation as a critical management area" and that the standard for designating a critical management area is whether "withdrawals of groundwater consistently exceed the perennial yield of the basin."[13] In addition the proponents state that one of their goals is to "stabilize groundwater levels of the aquifer."[14] However, the proposed GMP lacks any scientific analysis describing how the pumping reduction goals relate to the characteristics of the Diamond Valley aquifer or whether these goals will actually result in a stabilization of groundwater levels. Absent credible scientific evidence showing that the proposed pumping reductions will correct the current basin deficit, and thereby meet the statutory goal of achieving a stabilization of groundwater levels, the State Engineer lacks substantial evidence to approve the plan.

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[12] The State Engineer has determined that the perennial yield of the basin is 30,000 afa. *See* Nevada Division of Water Resources, Hydrographic Area Summary for Basin 153 (Diamond Valley). Since 1971, pumping has consistently exceeded this level. *See* GMP at 169 (Figure 6).

[13] GMP at 10 (quoting NRS 534.037(1) and NRS 534.110(7)(a)).

[14] GMP at 18.

A. The GMP contains no groundwater modeling or other evidence demonstrating that the reductions in pumping will result in a stabilization of groundwater levels.

The only way to determine whether the proposed pumping reductions will result in a stabilization of groundwater levels is to retain a groundwater modeling expert and have them perform groundwater model simulations using various pumping reduction scenarios. This has not been done. The groundwater model that was used to determine the evapotranspiration depreciation percentages used in Section 13.9 of the plan[15] should also be used to determine the effect of the proposed pumping reductions on the aquifer.

The State Engineer has regularly required groundwater modeling of this type when reviewing permits requesting both new appropriations of groundwater and changes to existing appropriations. Because the proposed GMP allows water to be freely moved around the basin, and to be used for different purposes,[16] it should be treated in the same manner, and held to the same standards, as a change application. Since the State Engineer would require individuals submitting change applications of this magnitude to engage in some form of groundwater modeling to demonstrate that the pumping associated with such applications will not result in groundwater mining, he should do the same here.

Given that a groundwater model has already been developed for the Diamond Valley basin, it is unclear why this model was not used to evaluate the proposed GMP. The only reasonable inference that can be drawn from the failure to do so is that the proponents of the GMP instinctively know what such modeling will show – that the reductions in pumping proposed in the plan are inadequate to stem the existing groundwater declines and bring the basin back into balance.[17] Without a groundwater model simulation showing that the proposed reductions in pumping will balance the water budget in the basin and thereby halt the continuing decline in

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[15] GMP Appendix I.

[16] *See* GMP at 17 (Section 13.8 states that "[g]roundwater subject to this GMP may be withdrawn from Diamond Valley for any beneficial purpose under Nevada law.")

[17] *See Bass-Davis v. Davis*, 122 Nev. 442, 448, 134 P.3d 103, 106 (2006) ("When evidence is willfully suppressed, NRS 47.250(3) creates a rebuttable presumption that the evidence would be adverse if produced.").

groundwater levels, the State Engineer lacks the substantial evidence needed to support approval of the proposed GMP.

B. The proposed GMP does not include a monitoring plan to measure its effectiveness in stabilizing water levels in the basin.

The proposed GMP includes an appendix with two proposed pumping reduction schedules – a "Benchmark" schedule and a "Most Aggressive" schedule.[18] The plan states that, after an initial 10-year period, the State Engineer may adjust the benchmark pumping reduction schedule based on "groundwater level monitoring data multi-year trends."[19] However, there is no description in the proposed GMP of the number or locations of the groundwater monitoring wells, the devices that will be used to measure groundwater levels, the frequency of observation, or the party responsible for taking measurements. There is also a lack of analysis regarding the placement of the monitoring wells and devices and a description of why such locations were chosen. In short, the proposed GMP fails to include a monitoring plan that can be used to guide the State Engineer in his decision-making process.

The Hydrologic Setting report included with the proposed GMP states that "[g]roundwater exploitation in the basin has caused the discharge from many springs to decline or cease to flow altogether."[20] To be effective, any monitoring plan must provide for monitoring wells and devices that can specifically track the spread of the cone of depression from the southern pumping into these sensitive areas. Other natural resources that are being affected by the over-pumping of the basin must be identified and monitored as well. As the water table drops because of the continued over-pumping authorized by the plan, there should be system of tracking the effects of these declines on irrigation domestic, municipal, mining and stockwater wells in the basin. Without an effective monitoring plan, there will be no evidentiary basis the State Engineer can rely on in making the decision whether to attenuate or accelerate future pumping reductions.

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[18] GMP at 293.
[19] GMP at 18 (Section 13.13).
[20] GMP at 276.

C. The proposed GMP does not include objective thresholds and triggers to determine whether more aggressive reductions in pumping will be required.

The Nevada Supreme Court has determined that any decision made by the State Engineer regarding future water withdrawals in a basin must be based on "presently known substantial evidence, rather than information to be determined in the future."[21] Accordingly, if a plan requires the State Engineer to make future determinations it must include objective triggers and thresholds to guide the State Engineer in making his decision.

As noted above, under the proposed GMP the State Engineer has the authority to increase pumping reductions beyond those provided in the benchmark schedule.[22] However, there are no objective standards guiding such a decision. Instead, the State Engineer is merely directed to consult with the Advisory Board and review multi-year groundwater data. Nothing in the plan lists factors or considerations that the Advisory Board and State Engineer must consider in making their decision. There are also no objective triggers or thresholds which, if crossed, require additional action be taken (i.e., if groundwater monitoring and modeling shows X, then the Advisory Board and the State Engineer must do Y).

Because the proposed GMP does not include any objective triggers and thresholds to guide the Advisory Board and State Engineer in making required future determinations, it does not provide substantial evidence showing that it includes the necessary steps to bring the basin back into balance.

D. The proposed GMP improperly limits the State Engineer's discretion to order accelerated pumping reductions.

In addition to not providing objective triggers and thresholds to guide the determination of whether more aggressive pumping reductions are needed, the proposed GMP also artificially limits the State Engineer's discretion regarding how much of an accelerated reduction can be ordered. Under the plan, the State Engineer is strictly prohibited from deviating from the

[21] *Eureka Cnty. v. State Engineer*, 131 Nev. Ad. Op. 84, 359 P.3d 1114, 1120 (2015).
[22] GMP at 18 (Section 13.13).

benchmark reductions during the first 10-years of the plan.[23] Then, after the 10-year period expires, the State Engineer is only authorized to increase or decrease pumping reductions by a maximum of two percent per year.[24] This means that even if groundwater levels continue to decline, and even if such declines have catastrophic results, the State Engineer will be prohibited from taking action to correct the problem. Such provisions represent an unlawful intrusion on the State Engineer's authority to regulate the groundwater basin in a manner that protects both the environment and vested water right holders.

The Legislature has granted the State Engineer the power to "supervise" all groundwater wells within a basin (except domestic wells)[25] and "make such rules, regulations and orders as are deemed necessary essential for the welfare of the area involved."[26] In addition, the Legislature has authorized the State Engineer to order a curtailment of pumping in basins where evidence indicates that "average annual replenishment to the groundwater supply may not be adequate for the needs of all permittees."[27] The State Engineer's authority under these provisions may not be limited or waived by the approval of a GMP.

With the adoption of NRS 534.037 and NRS 534.110(7) the Legislature permissively allowed the State Engineer to consider approving a GMP in lieu of regulation by priority. However, the Legislature did not, either expressly or impliedly, state that a GMP can excuse the State Engineer from exercising his general regulatory authority or limit the manner in which he may do so. The purpose of a GMP is to provide water right holders the opportunity to take collective action to limit their own appropriations in a manner that benefits everyone. The Legislature did not authorize a GMP to create an entirely new regulatory scheme that exempts water users from the State Engineer's general regulatory authority or from other mandatory provisions of the water law.

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[23] GMP at 18 (Section 13.13).
[24] *Id.*
[25] NRS 534.030(4).
[26] NRS 534.120(1).
[27] NRS 534.110(6).

Because the proposed GMP unlawfully restricts the State Engineer's ability to adopt future regulations if such regulations are needed to protect the groundwater resource in Diamond Valley, the GMP cannot be approved in its current form.

II. The GMP does not protect holders of senior vested rights.

A basic principle of Nevada's water laws is that vested rights to water (i.e., groundwater rights established before 1939[28] and artesian surface water rights established before 1913[29]) cannot be impaired by any action of the State Engineer. Adopting a groundwater management plan that authorizes continued water level declines, where such declines will continue to impact vested rights, would violate this non-impairment principle.

A. The GMP ignores the impacts to senior vested rights holders of allowing for 35 more years of over-pumping of the basin aquifer.

In 1968, J.R. Harrill, a USGS scientist, estimated that the top 100 feet of alluvium in the Diamond Valley basin holds approximately two million acre-feet of water.[30] This is commonly understood to be the quantity of water that can be removed from a basin during the time it transitions to a new equilibrium in response to groundwater development (i.e., transitional storage) as long as such withdrawals do not impact existing water users. Since the late 1960s, groundwater pumping in Diamond Valley has already captured 1.75 million acre-feet, or 87.5% of this water.[31] Despite this, the proposed GMP allows the over-pumping to continue for another 35 years[32] By the end of this 35-year period, it is estimated that more than 2.5 million acre-feet will have been removed from basin storage with no equilibrium in sight.[33] This means that not only will the irrigators in Diamond Valley have mined the entire quantity of transitional storage in the basin,

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[28] NRS 534.100(1).
[29] NRS 533.085(1).
[30] Exhibit 1.
[31] *Id.*
[32] As noted above, even after the 35-year period has expired, withdrawals of water from the basin will continue to exceed recharge by a significant amount.
[33] Exhibit 1.

they will have also mined an additional 500,000 acre-feet of water from the permanent aquifer with no end in sight.

Holders of senior-priority vested rights have already borne the brunt of this recklessness. Most of the artesian springs in the basin have stopped flowing or had their flows significantly reduced. In addition, land subsidence associated with groundwater declines has damaged property.[34] The subsidence has also resulted in uneven terrain on the ranch that has eliminated the ability to flood irrigate certain fields that were historically irrigated in this manner.[35] Continued over-pumping in the basin will only worsen the problem. As the USGS predicted, even with the pumping reductions in the proposed GMP, water levels in the basin will continue to decline thereby furthering the harm done to the vested right holders.

B. The GMP fails to provide adequate mitigation for the existing and future harms senior vested rights holders have suffered and will continue to suffer.

The proponents of the GMP claim that its purpose is not to address the inequities of the past, but to try and provide a path forward.[36] Assuming, *arguendo*, that this is an appropriate response to property owners who have suffered significant losses as a result of past over-pumping, if the plan authorizes continued pumping that harms such individuals it must also include mitigation measures to offset those harms.

While several vested right holders have been issued mitigation rights to replace lost spring flows, these rights do not provide the full measure of mitigation they are entitled to by law.[37] A senior water right holder who has been harmed by a junior right holder has the right to demand the full delivery of his water, at his customary headgate, *at no additional cost*.[38] Vested right

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[34] Exhibit 2.

[35] For additional information regarding the land subsidence problem in Diamond Valley *see generally* REI ARAI, APPLICATION OF SYNTHETIC APERTURE RADAR INTERFEROMETRY (INSAR) IN DEFINING GROUNDWATER-WITHDRAWAL-RELATED SUBSIDENCE, DIAMOND VALLEY, NEVADA (August 2009).

[36] GMP at 241 ("This GMP does not address the inequities of the past.").

[37] Sadler Ranch continues to dispute whether the quantity of its mitigation rights provide the same quantity of water as was historically used on the ranch.

[38] *See Pima Farms Co. v Proctor*, 245 P. 369, 372-73 (Ariz. 1926) ("An appropriator of water from a running stream is entitled to have it flow down the natural channel to his point of diversion undiminished in quantity and quality or, if diverted from the natural channel by other appropriators for their convenience, to have it delivered to him at available points by other means provided by subsequent appropriators and *at their expense*.") (emphasis added).

holders like Sadler Ranch historically received their water from free-flowing groundwater springs. To access this water, they did not incur any expenses associated with drilling a well, installing and maintaining well pumps, or paying for electricity to run the pumps.

The mitigation rights the State Engineer issued do not provide any mitigation for the costs of diverting and using the water. Because of this, Sadler Ranch and other senior vested right holders have not received full mitigation for past and future damages to their water rights. This problem could be resolved in a properly formulated groundwater management plan. Such a plan would impose an assessment on junior water right holders and place the money in a fund that could be used to pay the additional costs incurred by the senior vested right holders. Unfortunately, the proposed GMP does no such thing, choosing instead to ignore vested rights holders altogether.

Because the proposed GMP does not provide adequate mitigation for the continued harm that will be inflicted on vested right holders as a result of continued over-pumping of the basin, substantial evidence does not exist to support its approval.

C. The governance portions of the GMP must be changed to allow adequate representation by senior rights holders.

The proposed GMP sets up an Advisory Board that will make recommendations to the State Engineer regarding plan management. The governance structure of this Advisory Board is heavily weighted in favor of junior water right holders who will have the ability to effectively silence the concerns of vested right holders.[39] To resolve this issue, and ensure that the Advisory Board operates in a fair and impartial manner, holders of vested senior water rights should be afforded equal representation on the Advisory Board. For example, if the Advisory Board has eight seats, four seats should be allocated to senior vested right holders, and four seats allocated to the permit holders. As the GMP is currently written, junior water right holders will be able to select the person who represents vested right holders on the Advisory Board. Instead, the plan

[39] Exhibit 1.

should require that members of the Advisory Board representing specific water rights holders should be chosen only by those individuals.

III. Several provisions of the proposed GMP violate existing provisions of Nevada water law.

As noted above, the adoption of a GMP does not exempt water users in a basin from compliance with mandatory provisions of the statutory water law. Despite this, several provisions in the proposed GMP directly violate Nevada's water laws and water permitting requirements.

A. Allowing water users to store unused water in the aquifer for use in later years without an approved aquifer storage and recovery permit violates the NRS 534.250 and other provisions of Nevada's water law.

Nevada's statutory water law authorizes the State Engineer to approve ASR projects if those projects meet certain requirements. The proposed GMP sets up an ASR banking program that authorizes water users in Diamond Valley to "bank" their unused water allocations from one year and use or sell them in subsequent years.[40] In Appendix I of the proposed GMP Mr. Bugenig, a consulting hydrogeologist, states that:

> The ability to "bank" the unused portion of an Annual Groundwater Allocation is an essential part of the Diamond Valley Groundwater Management Plan (Plan). Water banking, or saving un-pumped groundwater for use in a subsequent year or years, *is a type of aquifer storage of recovery (ASR) program regulated by the Nevada State Engineer.*[41]

Therefore, the banking program outlined in the proposed GMP falls within the definition of an ASR project under Nevada law and is required to comply with the statutes governing such projects.

Under Nevada law an ASR project must be properly permitted, the water being stored must be available for appropriation, and the plan must by hydrologically feasible. The ASR banking program proposed in the draft GMP does not meet any of these criteria.

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[40] GMP at 17 (Section 13.9).
[41] GMP at 305 (emphasis added).

1. Banking water in the aquifer for use in later years requires a valid ASR permit.

Under NRS.250(1) "[a]ny person desiring to operate a[n ASR] project must first make an application to, and obtain from, the State Engineer a permit to operate such a project." The permit application must include, among other things, evidence of technical and financial feasibility, an identification of the source, quality, and quantity of water to be banked, the legal basis for acquiring and using the water in the project, and a hydrologic study demonstrating that the project is hydrologically feasible and will not cause harm to other users of water in the basin.[42] Before approving such an application, the State Engineer must determine that: (1) the applicant has the technical and financial capability to operate the project, (2) the applicant has a right to use the proposed source of water for recharge, (3) the project is hydrologically feasible, and (4) the project will not cause harm to other users of water.[43] The State Engineer must also require the applicant to monitor the operation of the project and the project's effect on other water users.

The submission of a proposed groundwater management plan is not a substitute for the filing of an application to operate an ASR project. First and foremost, the proposed GMP does not include the mandatory information required for an ASR application to be deemed complete. Second, the proposed GMP was not noticed and published pursuant to the requirements of NRS 534.270. Finally, the "Memo" from Mr. Bugenig that is described in the proposed GMP as a "Groundwater Flow Modeling Report" addresses only one specific issue related to the ASR banking program – the depreciation factors used in the proposed GMP. The Memo does not demonstrate that the ASR banking program is hydrologically feasible and that it will not harm other water users.

Because the proper procedures have not been followed to establish an ASR banking program under Nevada law, and because this program has been deemed an "essential" component of the proposed GMP, the State Engineer lacks the substantial evidence needed to approve the GMP.

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[42] NRS 534.260.
[43] NRS 534.250(2).

2. Because water above the perennial yield is not available for appropriation, it cannot be used to support an ASR banking program.

As noted above, before the State Engineer can approve an ASR banking program he must determine that the water to be stored is otherwise available for appropriation.[44] Here the water proposed to be stored is from water rights permits that were issued above the basin's perennial yield. By definition, this is not water that is available for appropriation. Rather, it is water that is being unlawfully mined from the aquifer.

As defined in the proposed GMP, the perennial yield of the basin represents the "maximum amount of groundwater that can be salvaged each year."[45] This is the only water that is actually available for appropriation in Diamond Valley. In any given year, once withdrawals hit 30,000 acre-feet no other water remains available for use. The only way unused water allocations would be theoretically available to be stored in an ASR banking program would be if total withdrawals from the basin in a given year were less than 30,000 acre-feet. In that case, the total quantity of water available to be stored would be limited to the difference between the quantity of the withdrawals and the perennial yield (i.e., if total withdrawals in a given year were only 28,000 acre-feet, and the perennial yield is 30,000 acre-feet, then a maximum of 2,000 acre-feet would be available for banking).

Because the proposed GMP cannot demonstrate that the "unused" water that will be placed in the ASR banking program is available for appropriation the GMP violates Nevada's water laws governing ASR projects and cannot be approved in its current form.

3. The storage loss coefficients proposed in the GMP are not supported by substantial evidence in the record.

Section 13.9 of the proposed GMP states that "[b]anked groundwater shall be reduced at seventeen percent (17%) annually for water banked north of the dividing line and one percent (1%) annually for water banked south of the dividing line."[46] This division is supposedly justified

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[44] NRS 534.250(2)(b).
[45] GMP at 7.
[46] GMP at 17.

based on Mr. Bugenig's memo that is included in Appendix I.[47] In the memo Mr. Bugenig presents the results of a groundwater model simulation he performed. However, neither the memo, nor the proposed GMP, contain the numerical model, the modeling report, or an analysis of model calibrations and fit. Without this information there is no way to replicate Mr. Bugenig's findings.

Mr. Bugenig states that a depreciation rate was calculated by dividing the basin along an east/west line that follows a topographic divide.[48] Model simulations were then used to calculate the rate of groundwater loss to evapotranspiration for each of the sub-basins and this figure was determined to be the depreciation rate that should be applied within each sub-basin.[49] This approach ignores the fact that, according to the USGS, the groundwater divide in the basin is actively propagating northward as a result of the expanding cone of depression created by the over-pumping in the south. Therefore, groundwater lost to evapotranspiration in the north will continue to decline.

Mr. Bugenig also ignores the fact that no additional water will actually be stored in the basin as a result of the ASR banking program. Since the banking of a share allocation does not actually place additional water into the aquifer for storage, there is no stored water on either side of the groundwater divide that will actually be lost to evapotranspiration. Accordingly, applying a depreciation factor to any of the banked water, and applying different depreciation factors in different parts of the basin, is nonsensical.

Because Mr. Bugenig's memo is not accompanied by the numerical groundwater model, the modeling report, or an evaluation of model calibration and fit, his conclusions are unsupported and the memo should not be used as evidence to support the adoption of the proposed GMP.

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[47] GMP at 305.
[48] GMP at 306.
[49] GMP at 309.

B. The proposed GMP cannot waive mandatory provisions of the existing water law.

The provisions of the water law statute that allows for the designation of CMAs and the development of groundwater management plans contemplated changes in the management of water rights based on the consent of the property owners. Property owners can voluntarily choose to enter into a groundwater management plan whereby the pain of pumping reductions is shared between them, rather than seek strict enforcement of their priority rights. In providing this option, however, the Legislature did not contemplate changes to the State Engineer's statutory authority or authorize deviations from other mandatory provisions of the water law. Following are some examples of provisions in the proposed GMP that violate this principle.

1. The proposed GMP unlawfully allows water right holders to change the point of diversion, manner of use, and place of use of their permits without submitting an application to do so with the State Engineer.

Another essential component of the proposed GMP is the ability of water right shareholders to freely transfer and sell their water allocations to other users. In addition, while all the permits that are being converted into transferrable shares have a designated manner of use of irrigation, the GMP provides that shareholders may use their allocations for "any beneficial purpose under Nevada law."[50] This, in effect, converts the state-issued water rights permits, with well-defined places and manners of use, into a type of super-permit whose water can be diverted and used anywhere in the basin for any purpose whatsoever without complying with the permitting statutes.

Pursuant to NRS 533.325 "any person who wishes to appropriate any of the public waters, or to change the place of diversion, manner of use or place of use of water already appropriated, shall . . . apply to the State Engineer for a permit to do so." Under NRS 533.345 any application requesting to change an existing water right "must contain such information as may be necessary to a full understanding of the proposed change." The purpose for requiring an applicant to submit a change application is to ensure that the changes being proposed will not have a negative impact

[50] GMP at 17 (Section 13.8).

on other water users in the basin. Both statutes contain the mandatory language – "shall" and "must."[51] Because these provisions are mandatory, the State Engineer has no authority, either through approval of a GMP or otherwise, to waive them.

In addition, NRS 533.330 provides that "[n]o application shall be for the water of more than one source *to be used for more than one purpose*."[52] Accordingly, no water right permit may authorize water to be placed to more than one use and each beneficial use of water must be authorized by a separate permit. Again, the statute uses the mandatory language "shall" indicating that this is a non-waivable requirement. Because the permits underlying the shares distributed under the proposed GMP specify a particular beneficial use (irrigation), the GMP cannot authorize water users to place the water to some other use. As noted in the proposed GMP, water used for irrigation is not fully consumed by crops and a portion of the water ends up recharging the basin.[53] This is not the case with other beneficial uses, which generally consume the full duty of the appropriated water. Therefore, the proposed GMP will allow irrigation water users to convert their water to other higher consumptive uses without considering the lost recharge to the aquifer from the non-consumptive portion of their original permits. This violates standard water management practices that allow only the consumptively used portion of an irrigation permit to be transferred to another use.

Because the State Engineer is without authority to waive the requirement that a water user must submit an application before making any change in a place of diversion, place of use, or manner of use of an existing water right, and because no water right permit can be authorized for more than one beneficial use, the proposed GMP cannot be approved as submitted.

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[51] *See* NRS 0.025(c) & (d) (" 'Must' expresses a requirement"; " 'Shall' imposes a duty to act.").
[52] Emphasis added.
[53] GMP at 269.

2. The proposed GMP unlawfully authorizes the State Engineer to exempt wells from the well abandonment requirements of NRS 534 and NAC 534.

The proposed GMP states that "[w]ells kept active and linked to a Groundwater Allocation Account shall be exempt from well abandonment requirements of NRS 534 and NAC 534."[54] However, as discussed above, a GMP simply cannot exempt owners of wells from the existing statutes and regulations governing those wells. The Legislature established the well abandonment requirements of NRS 534. The State Engineer does not have any authority to override the Legislature and waive those mandates. Accordingly, this provision of the proposed GMP is unlawful and should be removed.

3. The proposed GMP unlawfully places time limits on the State Engineer to perform certain actions and deems regulated activity automatically approved if the State Engineer fails to meet the time limits.

Section 14.8 of the proposed GMP attempts to set up an alternative process for the approval of new, temporary wells.[55] Under this process, the State Engineer has just 14 days to evaluate an application for a new well, or increased diversions from an existing well. If the State Engineer fails to meet this deadline, the new well is deemed to be automatically approved.

The State Engineer must carefully consider all requests and applications submitted to him. This is a duty that cannot be waived. Where the circumstances of a particular request require additional study or evaluation, the State Engineer would be remiss to ignore these facts and instead act on the request simply to meet some artificial deadline.

As noted above, in administrative law the burden of proof rests with the party making a request or application unless a legislative statute provides otherwise. Only the Legislature, not the State Engineer or the proponents of the GMP, can shift the burden of proof to the State Engineer and declare that applications not acted upon within a certain timeframe will be automatically approved. Because the State Engineer does not have the authority to authorize a

[54] GMP at 19 (Section 14.2)
[55] GMP at 20.

permitting scheme whereby requests are deemed approved unless acted upon within a certain timeframe, Section 14.8 must be eliminated from the proposed GMP.

IV. Prior to approving and implementing the GMP, the State Engineer should require permits to be proven up and bring proceedings to forfeit unused permits.

As noted in the proposed GMP, committed groundwater rights (not including vested claims) total more than 131,000 acre-feet/annually.[56] However, the proponents of the proposed GMP admit that "[a] significant amount of these water rights are currently not being exercised, such that approximately 76,000 acre-feet per year are being pumped at present."[57] Under NRS 534.090, water rights that have not been used for five consecutive years are subject to forfeiture pursuant to a statutory process. Prior to approving any groundwater management plan for Diamond Valley, the State Engineer should pursue forfeiture of all unused water rights in the basin.

To do otherwise would be to provide a financial windfall to the holders of the unused permits. Under the proposed GMP every permit holder, including holders who have consistently failed to put their water to beneficial use, will have their water rights permits converted into allocated water shares.[58] As noted above, these shares are freely transferable throughout the basin and can be sold to other parties.[59] Accordingly, under the GMP, a water permit holder whose rights would otherwise be subject to forfeiture will be given new, transferable water right shares. Water permit holders with these rights will be able to trade these inactive paper rights as shares which can then become active and be used to gain the right to pump water. The proposed GMP should fully quantify and account for these inactive water rights and evaluate how their conversion to shares will impact other water rights in the basin.

The proposed GMP also provides that annual water allocations for each shareholder will be determined by dividing the total allowed pumping for that year by the total number of issued

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[56] GMP at 263.
[57] *Id.*
[58] GMP at 15.
[59] GMP at 17.

shares.[60] Because of this, holders of unused water permits will receive their share allocations at the expense of permit holders who properly maintained and used their permits. This is patently unfair.

When the statute authorizing GMPs was before the Legislature, Assemblyman Goicoechea, the bill's sponsor, raised this very issue. He stated that "[w]e have paper water rights and we have wet water rights in all these basins. Some of them are a water right that is being held and really does not have any proof of beneficial use attached to it."[61] Assemblyman Goicoechea stated that to resolve this issue a proposed GMP "will clearly have to require some people to surrender those paper rights [i.e., the perpetually unused rights]."[62] Nowhere, was it stated that holders of unused rights will be allowed to profit from their failure to use the water by converting their rights to tradeable shares.

Therefore, approval of the proposed GMP should be delayed until after the State Engineer first initiates proceedings to forfeit the significant quantity of unused water rights in Diamond Valley.

CONCLUSION

For the reasons stated above, and others that may raised in these proceedings,[63] Sadler Ranch respectfully requests the State Engineer reject the proposed GMP as submitted. However, Sadler Ranch also respectfully requests that, in doing so, the State Engineer provide specific guidance to the proponents of the GMP regarding how a future groundwater management plan should be developed and what it must include. Sadler Ranch has strongly supported the designation of Diamond Valley as a CMA and believes that approval and implementation of a properly designed GMP could be beneficial. Such a GMP should include the following elements:

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[60] *Id.*
[61] Minutes of the March 30, 2011, Assembly Committee of Government Affairs at 70.
[62] *Id.* at 71.
[63] Because there has been no formal briefing or evidence exchange prior to the October 30, 2018, hearing, Sadler Ranch reserves the right to raise additional issues or arguments in response to testimony or evidence presented by other participants (including, without limitation, the State Engineer or his staff) during or after the hearing.

(1) pumping reductions based on groundwater modeling demonstrating that such reductions will halt continued water level declines in the basin over a 10-year period, (2) a monitoring plan that measures the actual effectiveness of the pumping reductions and that will operate as a positive feedback mechanism to guide future management decisions, (3) triggers and thresholds tying future management decisions to objective criteria (like specific groundwater levels), (4) a mitigation plan that includes compensation to vested right holders for costs associated with drilling, installing, maintaining, and operating their mitigation wells, and (5) a governance structure that provides equal representation for the vested right holders.

Respectfully submitted this 2nd day of November, 2018.

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EXHIBIT INDEX

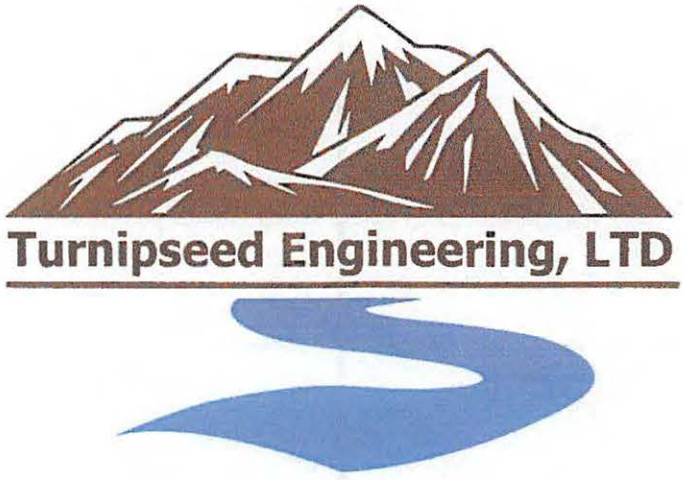
Exhibit	Description
1.	Expert Report by David Hillis, P.E.
2.	Photographs of damage from land subsidence.

EXHIBIT 1

EXHIBIT 1

Review and Evaluation of the Diamond Valley Ground Water Management Plan

October 30, 2018



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1.0 INTRODUCTION

Since some time in the 1960's the amount of water appropriated in Hydrographic Area - 153 Diamond Valley, commonly known as Diamond Valley, has exceeded the estimates of the perennial yield. This over allocation of the groundwater resource has resulted in adverse effects throughout the basin. Some examples of these adverse effects include increasing depths of pumping, drying of wells, reduction of spring flows, and in some cases "dry" or inadequate wells being drilled. These impacts are the result of an over allocation and utilization of the resource. The current and former residents of Diamond Valley have been aware of the groundwater issues some time. Fearing corrective action without input to the State Engineer, who is the head of NDWR, a portion of the permit holders in Diamond Valley petitioned the State engineer to designate Diamond Valley as a Critical Management Area [CMA]. Additionally, legal action which requested basin curtailment was taken against the State Engineer. As a result of these actions on August 25, 2015 Diamond Valley became the first and only CMA in the state of Nevada. As required by NRS 534.037 holders of groundwater permits in a basin with a CMA designation must submit a groundwater management plan [GMP] to the State Engineer, and have the plan approved, or face an automatic curtailment by priority. For the plan to be approved, it must set forth the necessary steps for the removal of the basin's designation as a critical management area as further stated in NRS 534.037. When the State Engineer considers whether to approve a groundwater management plan he must consider:

(a) The hydrology of the basin;

(b) The physical characteristics of the basin;

(c) The geographic spacing and location of the withdrawals of groundwater in the basin;

(d) The quality of the water in the basin;

(e) The wells located in the basin, including, without limitation, domestic wells;

(f) Whether a groundwater management plan already exists for the basin; and

(g) Any other factor deemed relevant by the State Engineer.

The Diamond Valley Ground Water Management Plan was submitted to NDWR on October 1, 2018 for consideration. After this submission Turnipseed Engineering, LTD was retained to review the plan, and provide feedback on any concerns with the possible implementation. After performing this review, it is my opinion that the GMP as written provides insufficient hydrogeological evidence to support the GMP's goals, appears to favor the junior priority water

appropriators, will continue to allow for the exploitation of the groundwater resource for the plans duration, and will not sufficiently reduce groundwater pumping to remove the CMA designation.

2.0 GROUNDWATER STORAGE DEPLETION

The over pumping in Diamond Valley has been documented numerous times. In 1968 J. R. Harrill discussed the overdraft of groundwater in, *Hydrologic Response to Irrigation Pumping in Diamond Valley, Eureka and Elko Counties, Nevada 1950-1965*,[1] and explains that the upper 100ft of alluvium throughout the entire basin holds 2 million acre-ft of storage (this is commonly considered the quantity of storage that can be safely removed from a basin during the time it transitions to a new equilibrium in response to pumping). Although this is a tremendous volume of water the reality is approximately 1,750,000 acre-ft of storage water has already been removed from storage due to over-pumping. In addition, if the proposed reductions described in Appendix F and G are implemented the exploitation of storage water will continue beyond the life of the proposed GMP.

Figure 1 below shows the historical irrigation pumping and the future pumping under the GMP. This figure displays the information from Figure 6 in Appendix D of the GMP with the proposed pumping described in Appendix F and G. From observation of the figure the withdrawals of groundwater only from water rights that are to be administered by the GMP will never fall below the perennial yield. If water rights which are not subject to the GMP are included the storage depletion would be much higher. The volume of water removed from storage since the perennial yield was exceeded can be calculated by determining the difference in estimated annual pumpage from the perennial yield. If this calculation is completed for timeline depicted in Figure 1 the result is 2,517,155 acre-ft of water will be permanently removed from storage. Figure 2 shows this depleted volume of storage water which, according to Harrill (1968), would completely remove all storage water from the first 100' of saturated alluvium and mine an additional approximately 500,000 acre-feet of water from the deeper aquifer.

Based on my review of the proposed GMP, the proposed pumping reduction regime will not result in the removal of the CMA designation.

[1] This issue was also discussed in DAVID L. BERGER, ET AL., BUDGETS AND CHEMICAL CHARACTERIZATION OF GROUNDWATER FOR THE DIAMOND VALLEY FLOW SYSTEM, CENTRAL NEVADA 2011-12 72 (USGS Scientific Investigations Report 2016-5055, United States Department of Interior).

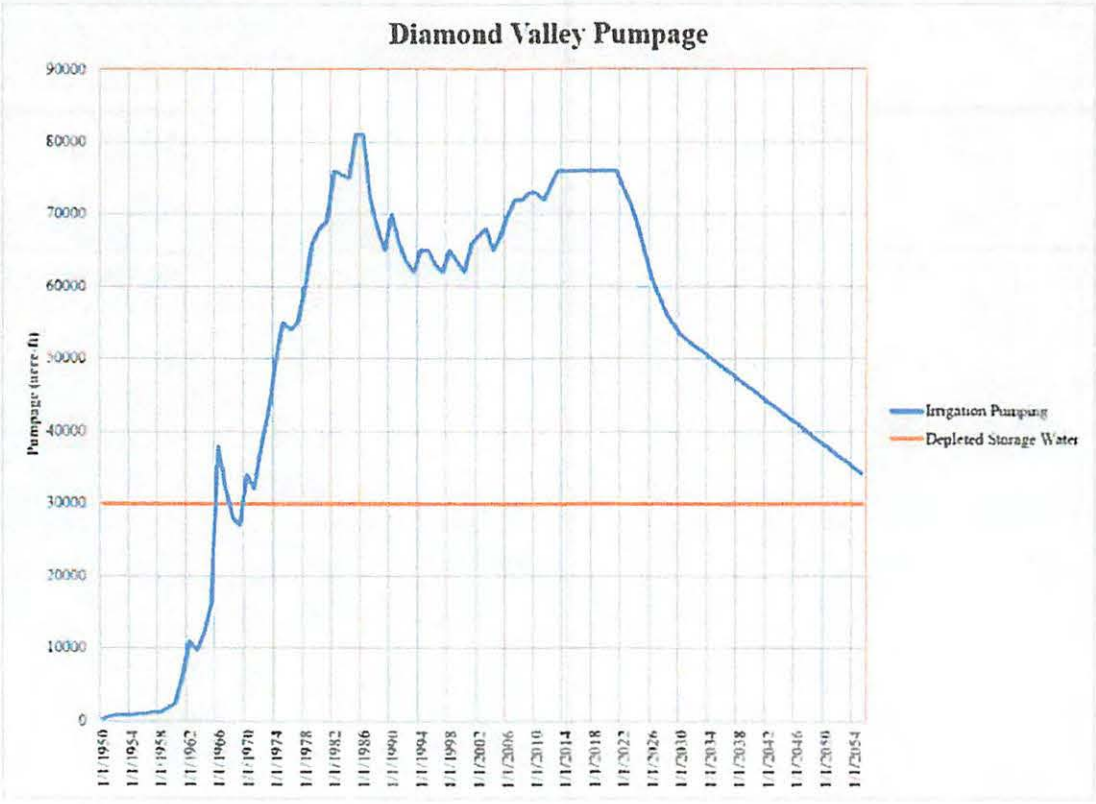


Figure 1 – Historical and Proposed Future Diamond Valley Pumpage

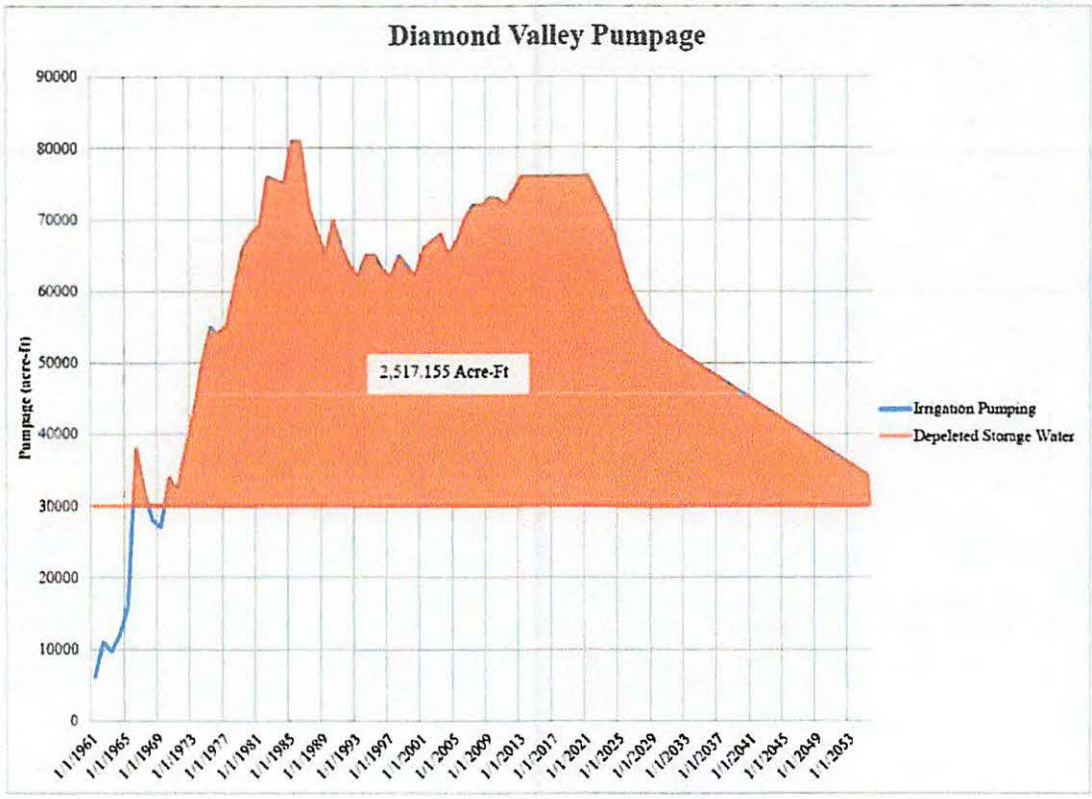


Figure 2 – Diamond Valley Historical Pumpage with Storage Depletion at Conclusion of GMP

3.0 INSUFFICIENT HYDROGEOLOGICAL EVIDENCE

The GMP states that it "must set forth the necessary steps for removal of the basin's designation as a critical management area" and that the criterion for removal of this designation is whether "withdrawals of groundwater consistently exceed the perennial yield of the basin." Further the GMP states that one of its goals is to "stabilize groundwater levels of the aquifer." However, there is no hydrogeologic based analysis in the GMP that which provides information on the ground water level status upon the GMP's conclusion. In fact there is no discussion of the hydrogeological impacts of the plan, the anticipated groundwater level recovery, impacts to existing spring flows, description of the monitoring plan, and the mitigation measures to modify groundwater withdraw reductions. Also, the GMP states that in year 1 the "Benchmark Water Allocation" is 0.670 acre-ft per share. This value appears to be arbitrary as no discussion is presented on how this value was determined. These benchmark values should have been determined from groundwater modeling and groundwater level targets.

The plan does include Appendix D – Hydrologic Setting of Diamond Valley, which provides general information about the hydrologic conditions, and Appendix I – Groundwater Flow Modeling Report Supporting Banking Depreciation, which focuses on the degradation of "banked" water within the aquifer. This document states a calibrated numerical groundwater model from the time period of 1956 to 2006, which was used in support of the Mount Hope Project (Montgomery & Associates, et al., 2010), was used to analyze the depreciation.

Appendix I therefore raises many concerns as the model, the modeling report, model calibration with included modifications, and another report discussed in Appendix I, "Bugenig, 2017", were not included, or available for review. Therefore, no interpretation and analysis can be conducted on the proposed depreciation values discussed in the GMP. In addition, this model could have been used to simulate and convey the effects of ground water levels for the GMP's duration. Unfortunately, the recent USGS Berger, 2016 report appears to be disregarded or underutilized when evaluating the hydrogeologic conditions in Diamond Valley. As an example, Appendix I states that the depreciation of banked water will be 1% for the South Diamond Valley Sub-Area, and 17% for the North Diamond Valley Sub-Area which follows a groundwater divide. The USGS report clearly states this groundwater divide has moved to the north as a result of the

rapidly expanding cone of depression from over pumping in the south. This means that the position of the divide will continue to migrate to the north. As there is no discussion of this fact and it is possible that irrigators who may currently be south of the divide could have a different depreciation values in the future.

4.0 SENIORITY VARIATIONS

The GMP continuously shows bias toward junior water right holders throughout the document. This is evident in many cases including the purported 20% share allocation difference between senior and junior water right holders, the number of seats on the advisory board held by senior water right holders, the elimination of a senior water right holder seat from the advisory board, and the manner in how elections votes will be tallied. These items will be discussed in more detail in the section below.

Junior water right holder bias can be seen in Section 11 – GMP Advisory Board [AB] in the GMP document. This section describes the how the seats on the AB will be distributed, how AB members are elected, and how votes will be tallied. The GMP proposes an 8 members board: 1 mining water right holder seat, 1 vested water right holder seat, 4 agriculture water right seats with both senior and junior water rights, and 2 senior water right holder seats. If we assume that the 30,000 acre-ft perennial yield value was exceeded on 5/16/1960 with the issuance of current Permit 70587 this means that 30,008 acre-ft of water are senior appropriations. This 30,008 acre-ft of appropriations make up just 23.8% of the total 126,207.182 acre-ft of allocated permits within the basin. Therefore, the senior water right holders will represent 23.8% of the water rights governed by the AB and can be easily outvoted by the junior water right holders. In addition, as stated in Section 11.3 once the GMP is approved one of the two senior water right holder seats will expire, this will further bias the board distribution to the junior water right holders.

The issues described are a major concern because Nevada Water Law is based on the Prior Appropriation Doctrine, which is understood as "first in time, first in right." When this doctrine is applied to a groundwater system the appropriations which occurred before the perennial yield was exceeded are the senior right holders. If the State Engineer were to regulate the basin by priority all junior appropriations would be prohibited from pumping. By contrast, the senior water right holders would receive no reduction in duty.

In section 12 - Groundwater Shares and Share Register the GMP claims there is a 20% share allotment spread from the most senior to the most junior water right holders in order to compensate the senior holders for their loss of priority. Unfortunately, when one reviews the volume of water a water right holder will actually receive under the GMP it demonstrates how misleading this statement is. For example: the most senior water right discussed in Appendix F in

the GMP is Permit 30927 and this permit will receive 69.1024 shares from an original duty of 69.12 acre-ft. Therefor this reduction due to "Priority Factor" is .03%, which is essentially no reduction. The most junior water right discussed is Permit 80881 and this permit will receive 35.2455 shares from an original duty of 44.00 acre-ft. Therefore, this reduction in shares due to Priority Factor is 19.9%, which is essentially 20%. However, at the end of the proposed 35-year period described in Appendix G Permit 30927 will receive approximately 20.8 acre-ft of water which is 30.09% of the original duty granted. Permit 80881 will receive approximately 10.6 acre-ft of water which is 24.11% of the original duty granted. Accordingly, the difference in the percent of water duty actually received from the original allocation is not 20% but only 5.98% (30.09% - 24.115%). This means from the most senior water right holder to the most junior water right holder there is only approximately a 6% difference in acre-ft of water from their original allocations.

Also, the GMP states that in year 1 the "Benchmark Water Allocation" is 0.670 acre-ft per share. This value appears to be arbitrary as no discussion is presented on how this value was determined. These benchmark values should have been determined from groundwater modeling and groundwater level targets.

5.0 CONCLUSION

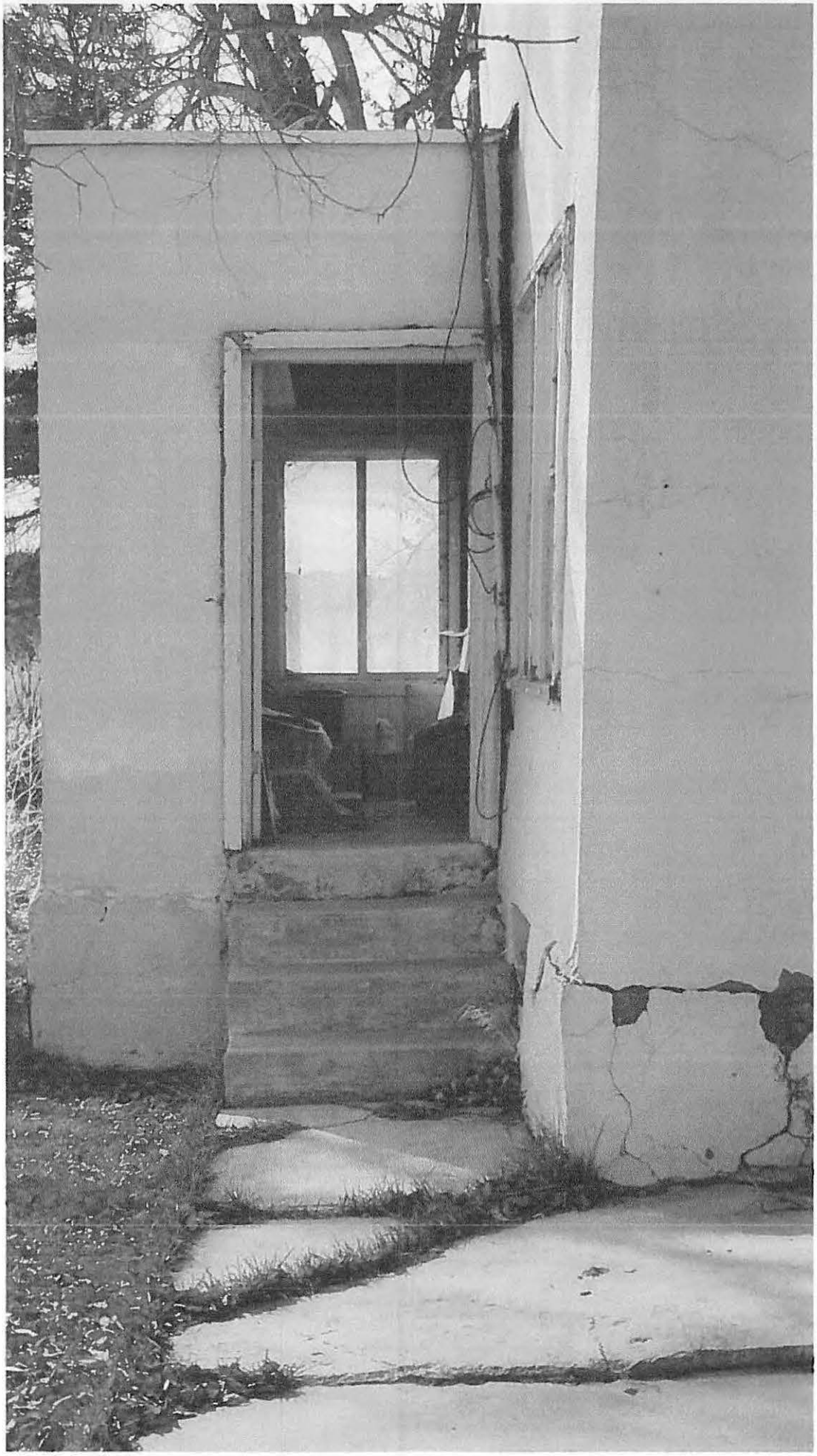
As discussed in the preceding pages the Nevada State Engineer must consider many aspects when considering the approval of a GMP. One of the most important aspects is the hydrology of the basin. This GMP will continue the over pumping of the groundwater resource for an unreasonable timeframe. The plan also provides insufficient hydrogeological evidence to support the GMP's goals. Although the GMP states a numerical groundwater model was available it appears as though it was only utilized for the determination of banking depreciation. Finally this model appears to favor the junior priority water appropriators for the many reasons discussed in Section 4.0.

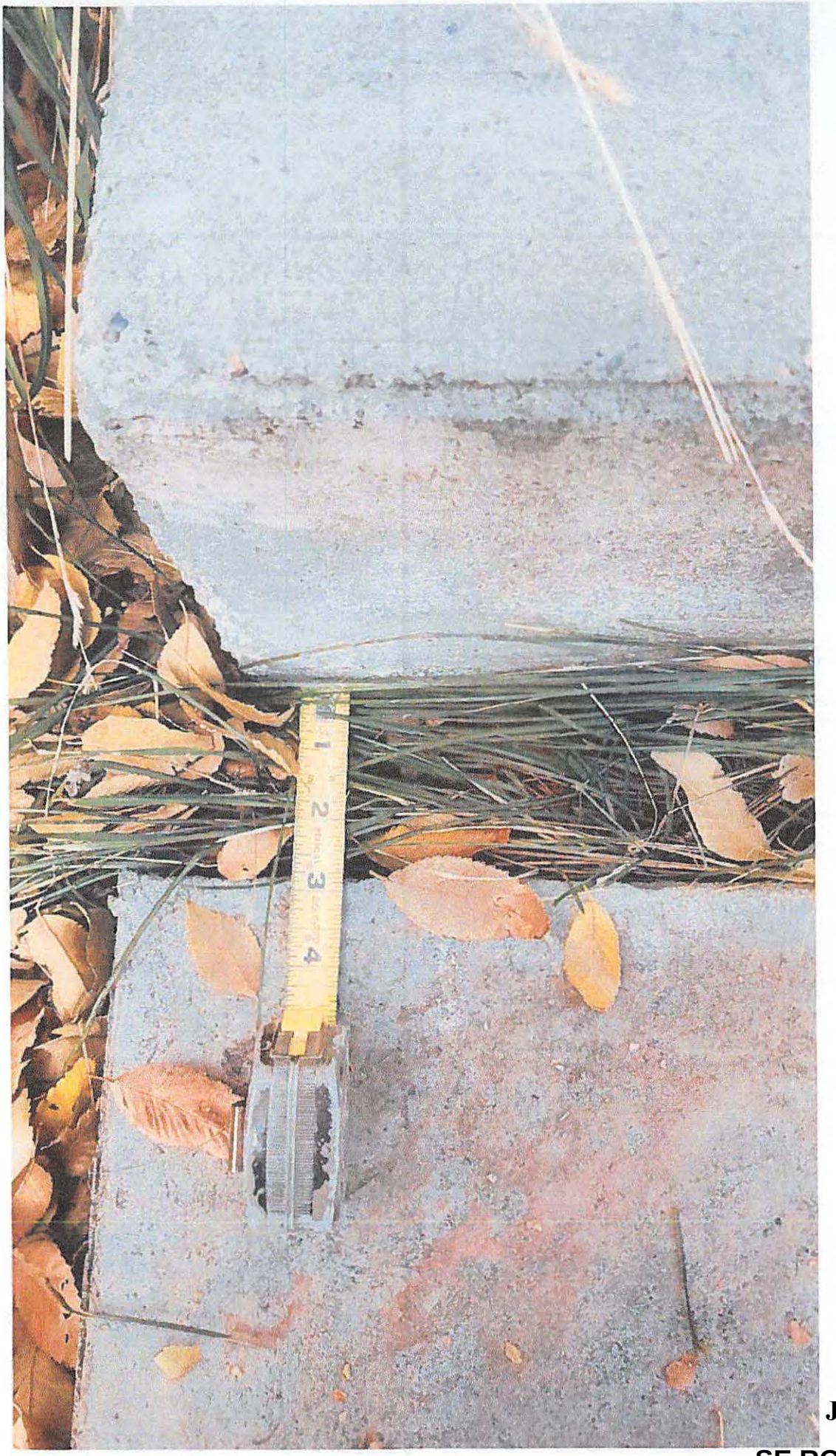
It is my professional opinion that the GMP as written will continue to allow for the exploitation of the groundwater resource for the plans duration, and will not sufficiently reduce groundwater pumping to remove the CMA designation.

David G. Hillis, Jr., P.E., W.R.S.

EXHIBIT 2

EXHIBIT 2





October 30, 2018

Jason King P.E.
Nevada State Engineer
Nevada Division of Water Resources
901 South Stewart Street Suite 2002
Carson City, NV

Re: Diamond Valley Groundwater Management Plan

Dear Mr. King,

My name is Daniel Venturacci, my wife and I own the Thompson Ranch located on the North End of Diamond Valley. The ranch consists of the deeded acres of the Home Ranch, Cox Ranch, Willow Field, Rock Field, Box Springs Ranch (Mau place), and Davis Canyon. In addition we also have the Diamond Springs BLM grazing permit which surrounds our deeded ground.

Due to the over allocation of pumping that has been allowed to continue to occur in Diamond Valley, all of the vested surface water irrigated and sub irrigated meadows located on the valley floor of the Thompson Ranch have been destroyed. The Thompson Ranch has been begging the State Engineer for help to restore its impaired vested water rights since 1982, the State Engineer has continued to let the over pumping impair the vested surface water rights on our ranch as well as others in Diamond Valley.

The current proposed Diamond Valley Groundwater Management Plan (GMP) allows Junior Water Right holders to continue to pump water in excess of the perennial yield, which in turn drops the water table and continues to impair vested surface water rights. Not only has the over allocation of Diamond Valley caused us to lose our vested surface water on the valley floor; our vested mountain runoff water is also being impaired. The over pumping has resulted in subsidence on the valley floor which creates large fissures; these fissures prevent the vested mountain runoff water from reaching the existing meadows therefore impairing our vested right even more (see attached pictures). As long as the over pumping is allowed to continue, these fissures will continue to increase both in number and size and cause us financial harm as well as impair our vested right.

We feel that the GMP is in violation of statute **NRS 533.085** which states:

1. Nothing contained in this chapter shall impair the vested right of any person to the use of water, nor shall the right of any person to take and use water be impaired or affected by any of the provisions of this chapter where appropriations have been initiated in accordance with law prior to March 22, 1913.

2. Any and all appropriations based upon applications and permits on file in the Office of the State Engineer on March 22, 1913, shall be perfected in accordance with the laws in force at the time of their filing.

Due to the fact that vested surface water rights are continuing to be impaired and no mitigation plan is addressed in the GMP we will not support the GMP as written. We feel that before the GMP is signed by you Mr. King, our concerns need to be addressed and resolved immediately so that our vested surface water rights do not continue to be impaired.

Sincerely,

Daniel Venturacci


One of many subsidence fissures in Cox field.


Verizon LTE
5:51 PM
ON X HUNT
Elevation 5811 ft
500 ft
39.91483,
-115.87447
Diamond Springs
Diamond Springs
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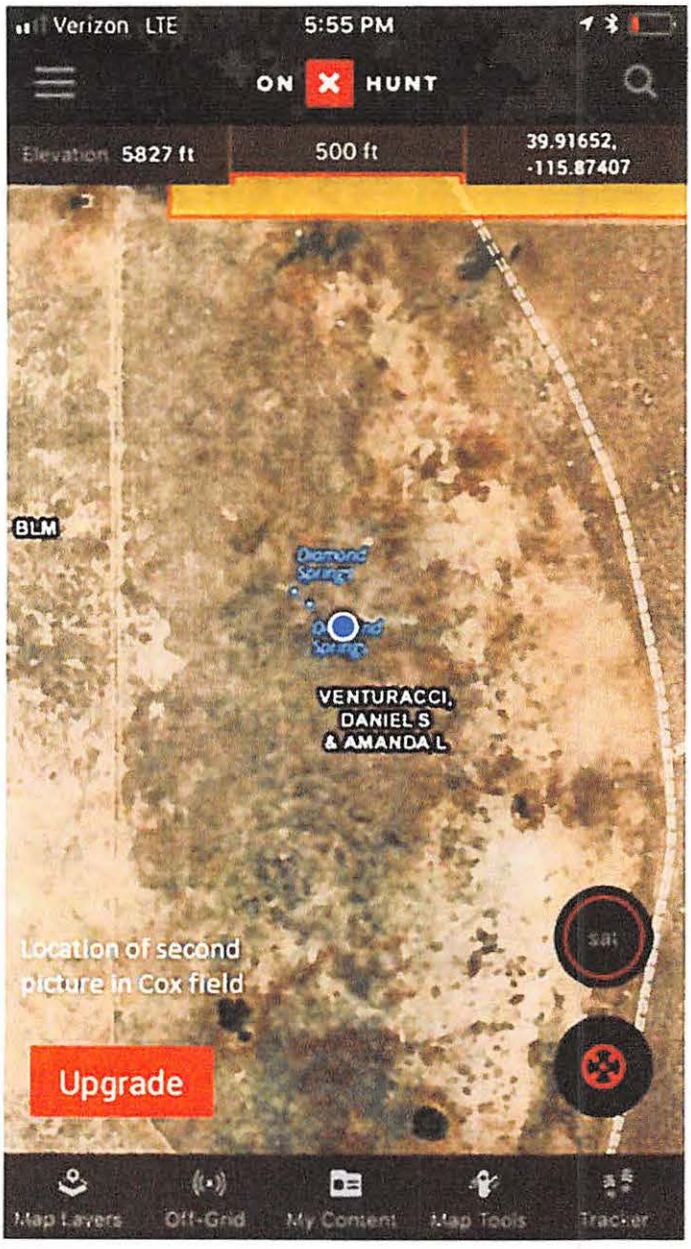
GPS location of Cox Field Fissure
Upgrade
Map Layers
Off-Grid
My Content
Map Tools
Tracker


Subsidence fissure located in second location of the Cox field.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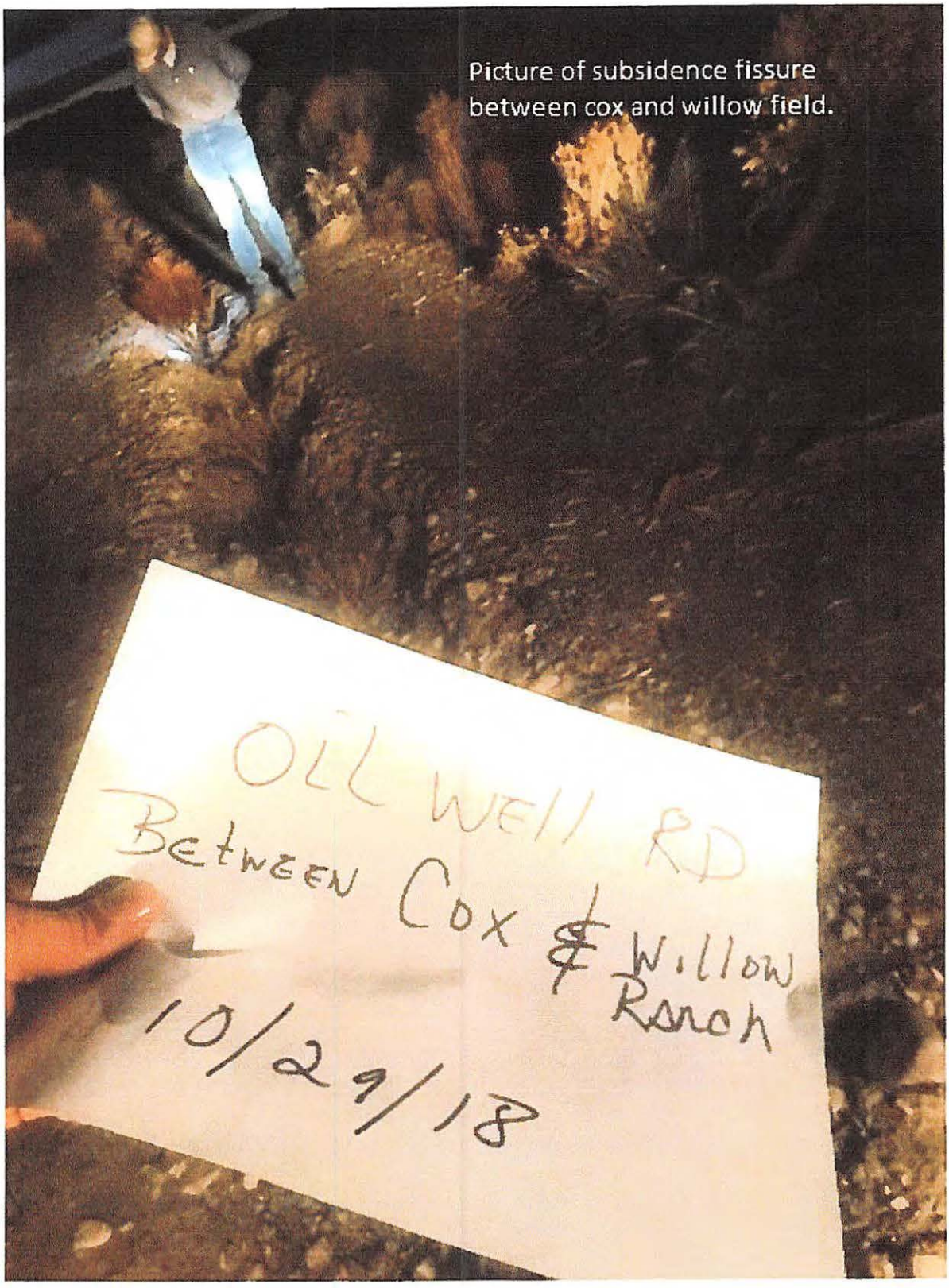
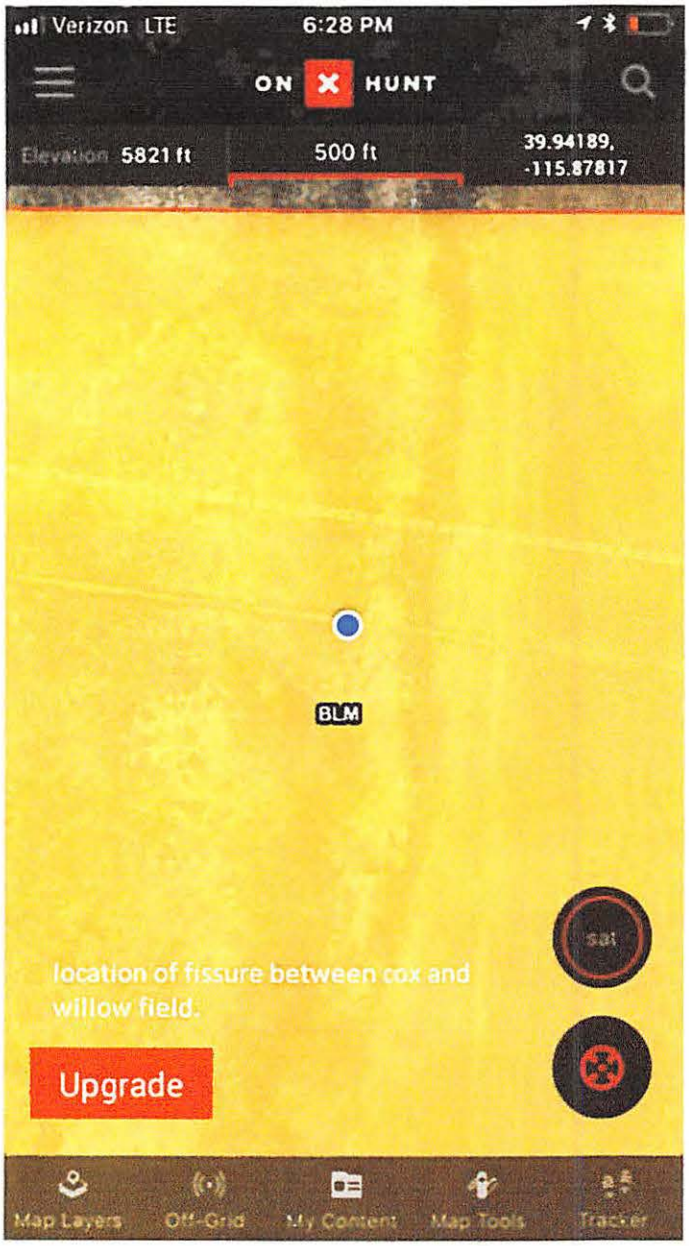

Picture of subsidence fissure
between cox and willow field.
OIL WELL RD
Between Cox & Willow
Ranch
10/29/18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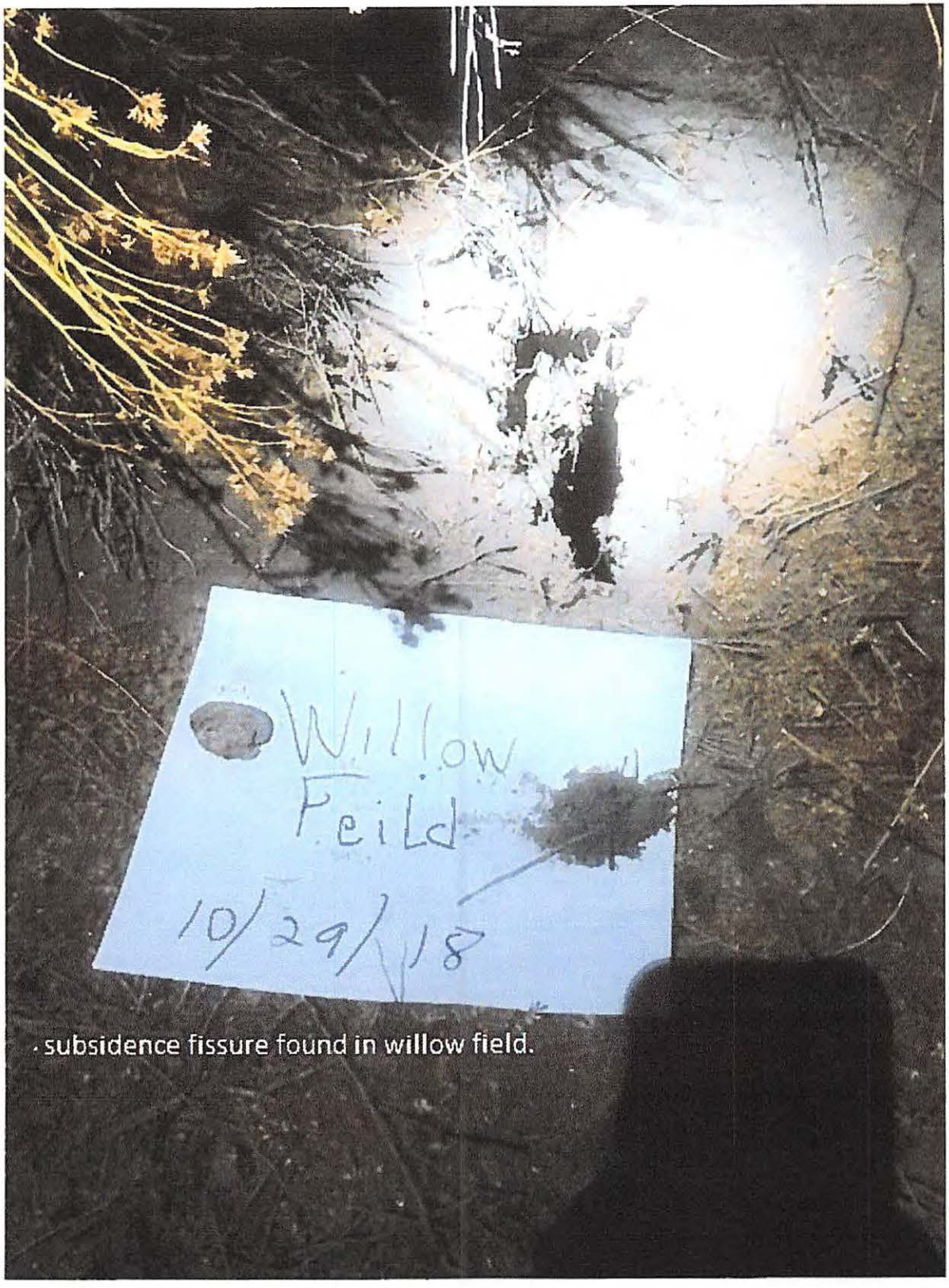
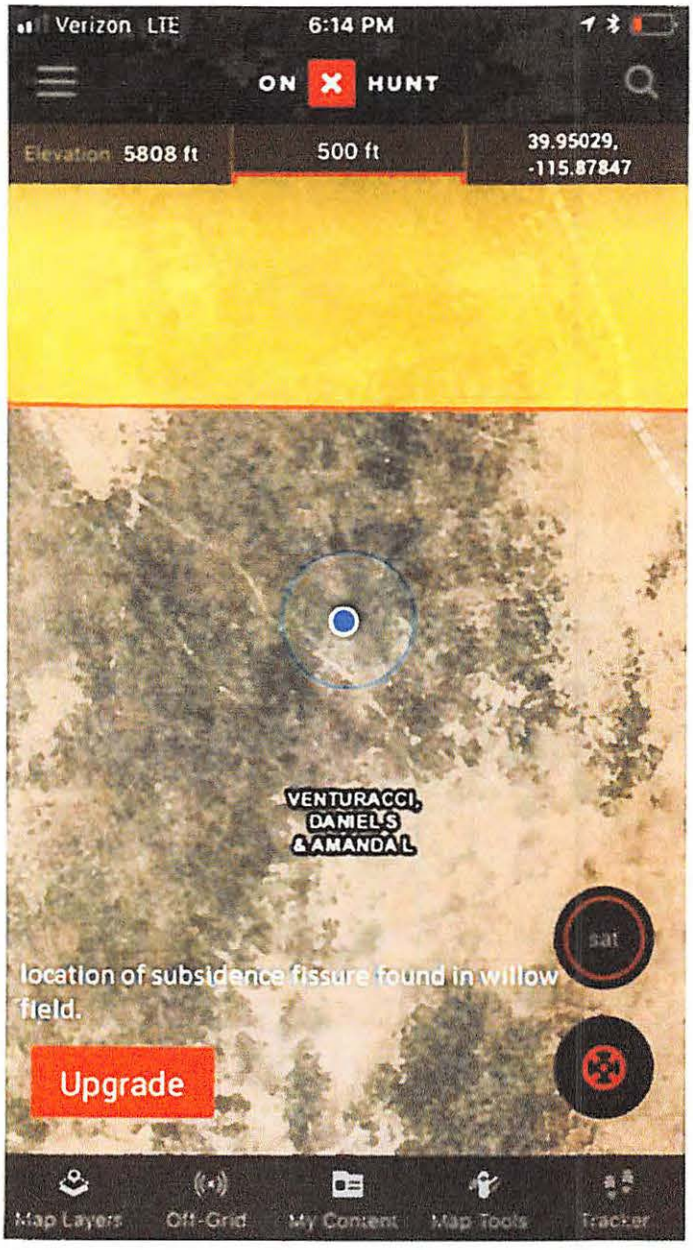


· subsidence fissure found in willow field.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Elevation 5808 ft
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location of subsidence fissure found in willow field.
Upgrade
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Map Tools
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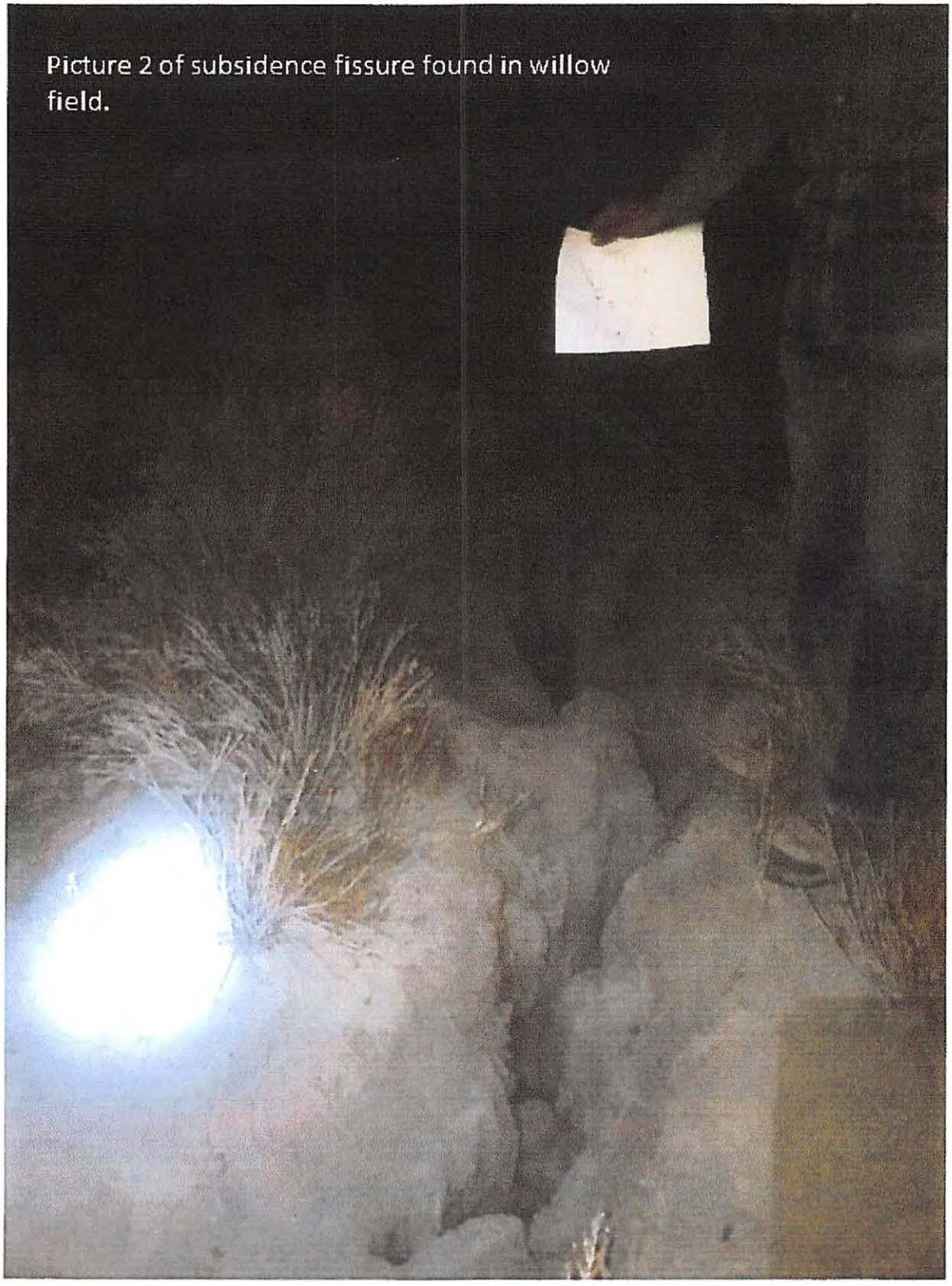
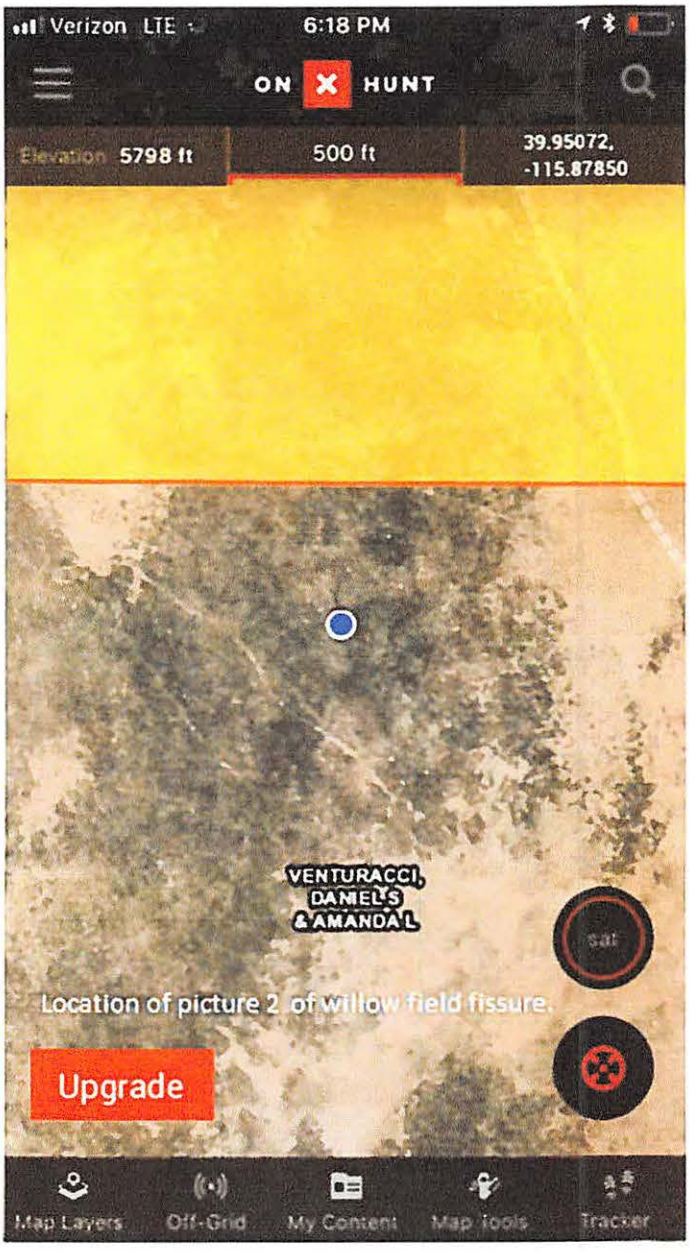

Picture 2 of subsidence fissure found in willow field.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Location of picture 2 of willow field fissure.
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