Case No. 84275

IN THE SUPREME COURT OF THE STATE OF NEVADA

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Elizabeth A. Brown
Clerk of Supreme Court

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS BOTH SURFACE AND UNDERGROUND LOCATED WITHIN THE DIAMOND VALLEY, HYDROGRAPHIC BASIN 10-153, EUREKA AND ELKO COUNTIES, NEVADA.

THE STATE OF NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVISION OF WATER RESOURCES; and ADAM SULLIVAN, P.E., STATE ENGINEER,

Appellants,

vs.

SOLARLJOS, LLC; DANIEL S. VENTURACCI; AMANDA L. VENTURACCI; CHAD D. BLISS; ROSIE J. BLISS; WILFRED BAILEY AND CAROLYN BAILEY, TRUSTEES OF THE WILFRED AND CAROLYN BAILEY FAMILY TRUST DATED FEBRUARY 20, 2018; EUREKA COUNTY; JAMES E. BAUMANN; VERA L. BAUMANN; NORMAN C. FITZWATER; KINDY L. FITZWATER; ARC DOME PARTNERS, LLC; ROBERT F. BECK AND KAREN A. BECK, TRUSTEES OF THE BECK FAMILY TRUST DATED APRIL 1, 2005; IRA R. RENNER; MONTIRA RENNER; SADLER RANCH, LLC; MW CATTLE, LLC; UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT; PETER GOICOECHEA; and GLADY GOICOECHEA,

Respondents.

SADLER RANCH, LLC'S RESPONSE TO STATE ENGINEER'S EMERGENCY MOTION FOR STAY

Docket 84275 Document 2022-07053

Respondent SADLER RANCH, LLC (hereinafter "Sadler Ranch"), by and through their counsel of record, DAVID H. RIGDON, ESQ. and PAUL G. TAGGART, ESQ., of the law firm TAGGART & TAGGART, LTD., hereby files this Response to the State Engineer's NRAP 27(e) Emergency Motion for Stay ("Motion for Stay") requesting that the Stay be denied. This Response is based on the following Memorandum of Points and Authorities, all pleadings and papers submitted by the parties in this matter, and any oral argument the Court may choose to entertain.

MEMORANDUM OF POINTS AND AUTHORITIES

The State Engineer's Motion for Stay fails to identify either a cognizable emergency or a coherent justification to support the request. In its own review of the stay request, the District Court correctly found the State Engineer's attempt to bring an immediate halt to that court's ongoing adjudication proceeding, after failing to participate in or file an objection to those proceedings for more than a year, was "unconscionable."[1] This Court should affirm that determination and deny the requested stay.

STANDARD OF REVIEW

The Court considers four factors when presented with a request for a stay: (1) whether the object of the appeal will be defeated if the stay is denied, (2) whether the appellant (the State Engineer) will suffer injury if the stay is denied, (3) whether the respondent will suffer injury if the Stay is granted, and (4) whether the appellant

[1] Ex. 1 at 7:11-15.

is likely to prevail on the merits.[2] None of these considerations warrant issuance of the requested stay.

ARGUMENT

I. The Object Of This Appeal Is Limited And Will Not Be Defeated If The Stay Is Denied.

The State Engineer did not oppose Solarljos LLC's ("Solarljos") Motion for Summary Judgment, but now appeals the decision granting that motion. However, it is well-established that a failure to file an opposition to a motion "may be construed as an admission that the motion is meritorious and a consent to granting the same."[3] This Court has repeatedly held that "point[s] not urged in the trial court . . . are deemed to have been waived and will not be considered on appeal."[4] Accordingly, nothing in the Order Granting Summary Judgment to Solarljos (the "Solarljos Order"), or in the procedural processes leading to the issuance of that order are proper objects of this appeal. The only thing the State Engineer objected to in the proceedings below was the District Court's certification of the Solarljos Order as a final judgment under NRCP 54(b). Accordingly, that is the only issue ripe for appellate review.

The State Engineer requests: (1) a stay of the Solarljos Order, and (2) a stay of the ongoing adjudication proceedings before the District Court related to other claimants that have nothing to do with the Solarljos Order. The second of these requests is merely an attempt by the State Engineer to smuggle an improper

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[2] NRAP 8(c); *Mikohn Gaming Corp. v. McCrea*, 120 Nev. 248, 251, 89 P.3d 36, 38 (2004).
[3] DCR 13(3).
[4] *Old Aztec Mine, Inc. v. Brown*, 97 Nev. 49, 52, 623 P.2d 981, 983 (1981)

interlocutory appeal of ongoing trial court proceedings into an appeal whose only proper scope is determining whether NRCP 54(b) applies to adjudication proceedings. Denying the stay request will not frustrate or moot this Court's determination of that narrow question.

As the District Court correctly noted, if the State Engineer wished to bring an interlocutory challenge to his other procedural orders governing the ongoing adjudication proceedings, the proper way to do so was to file a writ petition at the time those orders were issued (more than a year ago),[5] not to wait until after the other parties have expended significant time and expense conducting discovery, retaining experts, preparing for and holding hearings on their individual claims.

Because the object of this appeal – a narrow determination of whether NRCP 54(b) is applicable to adjudication proceedings – will remain ripe and ready for determination without a stay, this Court should reject the State Engineer's Motion.

II. The State Engineer Will Not Suffer Harm If The Stay Is Denied.

The State Engineer filed his request for stay as an "emergency" motion under NRAP 27(e). But no actual emergency exists. The State Engineer alleges three distinct harms if a stay is not issued, none of which constitute emergencies: (1) Solarljos may start pumping the quantity of water the District Court ruled they were legally entitled to use, (2) the remaining hearings on the claimants' exceptions threaten to compound vaguely alleged procedural errors, and (3) absent a stay, the State Engineer is unsure of what role he should play in the remaining hearings. To

[5] Ex. 1 at 6:8-7:16.

bolster this last claim the State Engineer filed a "Supplement" indicating that Eureka County issued subpoenas to compel the testimony of NDWR staff at the March 3, 2022 hearing on the Bailey exceptions. However, the State Engineer has failed to inform this Court that: (1) at the same time he filed the Supplement, he also filed a motion to quash the subpoenas, and (2) the motion to quash was speedily granted by the District Court thereby mooting the Supplement.

Sadler Ranch's only concern is with the portion of the State Engineer's request that would bring a halt to the ongoing trial court proceedings that are unrelated to the Solarljos Order. Sadler Ranch leaves to Solarljos the question of whether it even has the ability or desire to fully use its water during the course of this appeal and will only address the second and third alleged harms.

No significant procedural errors have occurred below that would be "compounded" by allowing the trial court proceedings to continue. NRS 533.170(5) clearly and unambiguously requires a district court to apply "the Nevada Rules of Civil Procedure" ("NRCP") in "[a]ll proceedings" related to an adjudication. This is precisely what the District Court did, and what the State Engineer now complains of. Because the District Court is properly following the clear and unambiguous direction of the Legislature to utilize the NRCP in this adjudication, the State Engineer will not suffer any harm from the hearings contining apace.

Nor should the State Engineer be confused about his role in those hearings. By his own choice, he has none. As noted below,[6] the State Engineer made a

[6] *See* Section IV(B) *infra*.

conscious and deliberate choice not to actively defend his Order of Determination to shield himself from being compelled to be examined, under oath, about its numerous errors and inconsistencies. The State Engineer could have been an active participant and defend his Order of Determination if he wanted to do so. He did not, and therefore has no right to complain about any "uncertainty" regarding his role.[7] The State Engineer has stated that the Order of Determination "stands on its own." If so, then there is no need for his participation in the District Court hearings.

Because no emergency exists, and the State Engineer will suffer no serious or irreparable injury from the continuation of the hearings below, the requested stay should be denied.

III. Sadler Ranch Will Be Irreparably Harmed By The Requested Stay.

The hearing on Sadler Ranch's exceptions has already been held. Both Sadler Ranch and Eureka County actively participated in that hearing. Sadler Ranch expended significant sums on trial preparation, expert witness fees, and post-trial briefing and is now eagerly awaiting the District Court's determination.

The State Engineer appears to be asking for a do-over of the hearings that have already taken place on the basis that the District Court followed an erroneous procedure. Such a request would nullify the significant time and expense Sadler Ranch has already put into this effort and delay the issuance of a final decree. This will cause serious injury since Sadler Ranch is currently limited in the use of its water by the State Engineer's Order of Determination. Any further delay will only

[7] State Engineer Mot., Ex. 3 at 18-19.

exacerbate these injuries, which are irremediable since Sadler Ranch cannot receive monetary compensation for them. Accordingly, the stay should be denied.

IV. The State Engineer Is Unlikely To Succeed On The Merits.

A. The District Court has followed proper procedure below.

The State Engineer's claim that the District Court was wrong to apply the regular provisions of NRCP, including NRCP 54(b), in the adjudication hearings is without merit. While water rights proceedings are indeed "special in character"[8] the Legislature has specifically mandated "the method of procedure"[9] that the district courts must follow – the NRCP.[10]

The history of the water law elucidates the fact that district courts, not the State Engineer, determine and control judicial procedure in adjudication cases. Nevada enacted its first comprehensive water law in 1913.[11] Section 44 of that law transferred to the State Engineer the power to adjudicate the water rights of claimants.[12] This provision was challenged as a violation of Article 6, section 6 of the Nevada Constitution which vests such power exclusively in the judiciary.[13] A majority of the justices held that Section 44 did, in fact, violate Article 6, section 6

[8] State Engineer Mot. at 3 (citing *Application of Fillipinni*, 66 Nev. 17, 27, 202 P.2d 535, 540 (1949).
[9] *Id*.
[10] NRS 533.170(5).
[11] 1913 STATUTES OF NEVADA 192.
[12] Sec. 44, 1913 STATUTES OF NEVADA 192.
[13] JAMES H. DAVENPORT, NEVADA WATER LAW 14 (2003).

of the Nevada Constitution by "conferring judicial power upon [the State Engineer], something the Constitution does not permit."[14]

The problem was fixed by the Legislature in 1915.[15] Section 44 of the 1913 law was repealed.[16] With Section 44 repealed, the courts retained power to adjudicate water rights claims in accordance with their ordinary rules of practice. The basic scheme of the 1915 law, where the State Engineer *administratively* reviews pre-statutory claims and then submits his findings to the District Court for *de novo* review has consistently been upheld.[17]

The Legislature has also been specific in directing courts to use the regular rules of court procedure these cases. Prior to the 1952 adoption of the NRCP, the statutes provided that district court adjudication proceedings shall be held "in accordance with the rules governing civil actions . . ."[18] However, after the adoption of the NRCP, to clear up any confusion as to what "the rules governing civil actions" meant, NRS 533.170(5) was amended to specifically direct courts to use the NRCP. Accordingly, the State Engineer's complaints about the District Court applying the NRCP in this case are meritless and the stay should be denied.

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[14] *Ormsby v. Kearney*, 37 Nev. 314, 142 P. 803, 811 (J. Talbot concurrence).
[15] 1915 STATUTES OF NEVADA 378.
[16] Sec. 10, 1915 STATUTES OF NEVADA 378.
[17] *See Bergman v. Kearney*, 241 F. 884, 885 (D.Nev. 1917); *Vineyard Land & Stock Company v. Dist. Ct.*, 42 Nev. 1, 20, 171 P. 166, 170 (1918) ("There is a wide difference between having authority to supervise and administer and having authority to determine questions involving vested rights. The former may . . . be left to an administrative officer, while the latter is properly a question for the courts.").
[18] Sec. 1, 1927 STATUTES OF NEVADA 334.

B. The State Engineer is, and always has been, an adverse party to the claimants in this adjudication.

The State Engineer's claim that he is not an adverse party to the pre-statutory water-right holders in these proceedings, but only a disinterested "special master or referee" is belied by the long history of the State Engineer's mistreatment of pre-statutory water right holders in Diamond Valley.

The State Engineer has been an active and aggressive party opponent to pre-statutory right holders in numerous other cases. In the 1950s and 60s, the State Engineer issued groundwater permits that severely over-appropriated the basin despite warnings from USGS scientists that the approved pumping would cause the naturally flowing springs to dry up.[19] In the thirty-year period between 1982 and 2012, after the USGS predictions came true, the State Engineer stood by and took no effective action to stop the over-pumping and protect the senior users.[20] And when those senior users sought mitigation water to make up for the lost spring flows, the State Engineer provided them with only a fraction of the water they were entitled to, and then actively litigated against their efforts to get judicial relief.[21] Finally, the State Engineer refused to curtail the junior-priority pumping[22] and instead approved a groundwater management plan that authorizes such pumping to continue indefinitely while forcing senior-priority users to "share" their water with the

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[19] Sadler Ranch Answering Br. at 7, *Eureka Cnty. v. Sadler Ranch, LLC*, NV S.Ct. Case No. 75736.
[20] *Id*. at 7-8.
[21] *Id*. at 8-18.
[22] Sadler Ranch Answering Br. at 12-17, *Eureka Cnty. v. Dist. Ct.*, NV S.Ct. Case No. 72317.

juniors.[23] In all of these instances the State Engineer, joined by Eureka County, has actively worked to promote the interests of junior-priority pumpers over those of the senior-priority, pre-statutory right holders.

This adjudication proceeding has been no different. During the administrative proceeding, the State Engineer actively worked to limit the rights of the pre-statutory holders, especially those who had opposed him in previous litigation, even though it resulted in an Order of Determination that contains numerous unreconcilable inconsistencies and erroneous factual interpretations. For example, the State Engineer relied on spring flow reports from a 1937 USGS publication to determine the amount of water recognized in some claims, while wholly ignoring this same data when determining other claims.[24]

Once the judicial portion of this adjudication was initiated, the State Engineer made a conscious and deliberate choice to not actively defend his Order of Determination as to shield himself and his staff from being compelled to be examined, under oath, about these inconsistencies. As the District Court correctly noted, "[t]hat choice was his, and his election not to defend his order of determination was his alone."[25] Because of this, Eureka County has taken up the job of trying to defend the Order of Determination and stated that its sole purpose in doing so is to protect the interest of the junior-priority pumpers.[26]

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[23] See *Diamond Natural Resources Protection & Conservation Association v. Diamond Valley Ranch, LLC*, NV S.Ct. Case No. 81224.
[24] Ex. 2 at 418:14-423:18.
[25] Ex. 1 at 10:20-11:1.
[26] Ex. 3 at 2:15-18, 19-21.

As the District Court correctly held, it cannot force the State Engineer to defend his order.[27] However, if the State Engineer chooses not to, he forfeits the right to complain to this Court about the consequences of that decision.

CONCLUSION

Based on the forgoing, Sadler Ranch respectfully requests the Court deny the State Engineer's requested stay with respect to the ongoing district court adjudication proceeding.

Respectfully submitted this 4th day of March 2022.

TAGGART & TAGGART, LTD.

By: */s/ David H. Rigdon*

DAVID H. RIGDON, ESQ.
Nevada State Bar No. 13567
PAUL G. TAGGART, ESQ.
Nevada State Bar No. 6136
108 North Minnesota Street
Carson City, Nevada 89703
(775) 882-9900 – Telephone
(775) 883-9900 – Facsimile
Paul@legaltnt.com; David@legaltnt.com
Attorneys for Sadler Ranch, LLC

[27] Ex. 1 at 10:15-18.

CERTIFICATE OF SERVICE

Pursuant to NRAP 25(b), I certify that I am an employee of TAGGART & TAGGART, LTD., and that on this day, I served, or caused to be served, a true and correct copy of the foregoing OPPOSITION TO STATE ENGINEER'S EMERGECY MOTION FOR STAY using the Nevada Supreme Court's E-Flex electronic filing system to the following parties:

Aaron D. Ford
James N. Bolotin, Esq.
JBolotin@ag.nv.gov
Attorneys for Nevada State Engineer.

Gordon H. DePaoli, Esq
gdepaoli@woodburnandwedge.com
Attorney for the Bailey Family Trust

Ross E. de Lipkau, Esq.
ross@nv1awyers.com
Attorney for Bliss

Laura A. Schroeder, Esq.
Therese A. Ure Stix, Esq.
Caitlin R. Skulan, Esq.
counsel@water-law.com
therese@water-law.com
Attorneys for Baumann, Beck Entities, and Fitzwater

Karen A. Peterson, Esq.
Theodore Beutel, Esq.
kpeterson@allisonrnackenzie.com
tbeutel@eurekacountynv.gov
Attorneys for Eureka County

Alex Flangas, Esq.
Severin A. Carlson, Esq.
August Hotchkin, Esq.
aflangas@kcnvlaw.com
ahotchkin@kcnvkaw.com
Attorneys for Solarljos, LLC

Steven D. King, Esq.
Robert A. Dotson, Esq.
Justin C. Vance, Esq.
Kingmont@charter.net
RDotson@dotsonlaw.legal
JVance@dotsonlaw.legal
Attorneys for Peter and Gladys Goicoechea

Paul E. Salamanca, Esq.
David L. Negri, Esq.
David.Negri@usdoj.gov
Counsel for the United States of America

Paul G. Taggart, Esq.
David Rigdon, Esq.
Paul@legaltnt.com
David@legaltnt.com
Attorneys for Sadler Ranch and MW Cattle.

Paul G. Taggart, Esq.
Tim O'Connor, Esq.
Paul@legaltnt.com
Tim@legaltnt.com
Attorneys Venturacci

DATED this 4th day of March, 2022.

/s/ Chloe Gouldman-Gainey
Employee of TAGGART & TAGGART, LTD.

Index of Exhibits

Exhibit No.	Exhibit Description	Number of Pages
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Exhibit 1

Exhibit 1

Case No. CV-2002009

Dept No. 2

FEB 24 2022

P O'Mahoney

IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA, IN AND FOR THE COUNTY OF EUREKA

******

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS, BOTH SURFACE AND UNDERGROUND, LOCATED WITHIN THE DIAMOND VALLEY HYDROGRAPHIC BASIN NO. 10-153, EUREKA AND ELKO COUNTIES, NEVADA

CERTIFICATE OF SERVICE

SEVENTH JUDICIAL DISTRICT COURT
GARY D. FAIRMAN
DISTRICT JUDGE
DEPARTMENT 2
WHITE PINE, LINCOLN AND EUREKA COUNTIES
STATE OF NEVADA

The undersigned being an employee of the Eureka County Clerk's Office, hereby certifies that on the 24th day of February, 2022, I personally delivered a true and correct copy of the following:

Order Denying State Engineer's Motion For Stay of Corrected Order Granting Solarijos, LLC's Motion For Partial Summary Judgment Pending Appeal; Order Denying Motion For Stay of The Entirety of These Adjudication Proceedings Pending Appeal

addressed to:

Paul Taggart, Esq.
David H. Rigdon, Esq.
Timothy D. O'Connor, Esq.
Tamara Thiel, Esq.
Paul@legaltnt.com
Tim@legaltnt.com
David@legaltnt.com
Tammy@legaltnt.com

David Negri, Esq.
David.negri@usdoj.gov

James N. Bolotin, Esq.
Ian Carr, Esq.
jbolotin@ag.nv.gov
icarr@ag.nv.gov

SEVENTH JUDICIAL DISTRICT COURT
GARY D. FAIRMAN
DISTRICT JUDGE
DEPARTMENT 2
WHITE PINE, LINCOLN AND EUREKA COUNTIES
STATE OF NEVADA

Therese Ure Stix, Esq.
therese@water-law.com
counsel@water-law.com

Alex Flangas, Esq.
aflangas@kcnvlaw.com
August B. Hotchkin, Esq.
ahotchkin@kcnvlaw.com

Karen A. Peterson, Esq.
kpeterson@allisonmackenzie.com

Theodore Beutel, Esq.
tbeutel@eurekacountynv.gov

Ross E. de Lipkau, Esq.
Ross@nvlawyers.com

Gordon H. DePaoli, Esq.
gdepaoli@woodburnwedge.com

Steven D. King, Esq.
Robert A. Dotson, Esq.
Justin C. Vance, Esq.
Kingmont@charter.net
rdotson@dotsonlaw.legal
jvance@dotsonlaw.legal

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B. Mahoney

Case No. CV-2002009

Dept No. 2

FILED

FEB 24 2022

Eureka County Clerk

By: BMahoney

IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA, IN AND FOR THE COUNTY OF EUREKA

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IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS, BOTH SURFACE AND UNDERGROUND, LOCATED WITHIN THE DIAMOND VALLEY HYDROGRAPHIC BASIN NO. 10-153, EUREKA AND ELKO COUNTIES, NEVADA

ORDER DENYING STATE ENGINEER'S MOTION FOR STAY OF CORRECTED ORDER GRANTING SOLARIJOS, LLC'S MOTION FOR PARTIAL SUMMARY JUDGMENT PENDING APPEAL; ORDER DENYING MOTION FOR STAY OF THE ENTIRETY OF THESE ADJUDICATION PROCEEDINGS PENDING APPEAL

On February 9, 2022, the State of Nevada, Department of Conservation and Natural Resources, Division of Water resources, and Adam Sullivan, P.E., in his capacity as the Nevada state Engineer (hereafter "State Engineer") filed a motion for stay of corrected order granting Solarijos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal. On February 10, 2022, the court entered an order setting hearing for oral arguments and an order shortening time to 5:00 p.m. on February 17, 2022 to file responses to the motion for stay. On February 17, 2022, the following responses were timely filed: (1) Venturacci's opposition to State Engineer's motion for stay of corrected order granting Solarijos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (2) Baumann, Beck Entities, and Fizwater's opposition to

SEVENTH JUDICIAL DISTRICT COURT
GARY D. FAIRMAN
DISTRICT JUDGE
DEPARTMENT 2
WHITE PINE, LINCOLN AND EUREKA COUNTIES
STATE OF NEVADA

motion for stay of corrected order and stay of the entirety of adjudication proceedings pending appeal; (3) United States' response to Nevada State Engineer's motion in support of a stay; (4) Eureka County's joinder to motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (5) Solarljos, LLC's opposition to the State Engineer's motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (6) opposition of Wildred and Carolyn Bailey Family Trust to motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (7) Sadler Ranch, LLC's and MW Cattle, LLC's joinder to opposition of Wilfred and Carolyn Bailey Family Trust to motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (8) Ira R. Renner and Montira Renner's opposition to State Engineer's motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment and for stay of the entirety of these adjudication proceedings pending appeal; (9) United States' response to Nevada State Engineer's motion in support of a stay. On February 18, 2022, after reviewing all timely filed responses, the court entered an order vacating the oral arguments hearing.

RELEVANT PROCEDURAL BACKGROUND

On November 10, 2020, a hearing was held to consider the notices of exceptions filed by the parties in interest. The parties and/or their counsel appeared and provided input to the court regarding case procedure, including discovery and motion practice.[1] On December 10, 2020, the court entered an order setting hearings for notices of

[1] JAVS recorded hearing held via Zoom on November 10, 2020.

exceptions filed on order of determination to determine relative water rights; order establishing case procedure ("order establishing case procedure"). No motion for reconsideration of the court's order establishing case procedure was filed by any claimant nor the State Engineer. Throughout the entirety of almost all, if not all, of the individual claimants' cases discovery has occurred and a variety of motion practice has been engaged by various claimants, including the proceedings involving Sadler Ranch, LLC, MW Cattle, LLC, and Daniel S. Venturacci and Amanda L. Venturacci, all of which had their evidentiary hearings in 2021.[2] The USA and the Venturaccis currently have pending before the court motions for summary judgment.[3]

The State Engineer's motion for stay: (1) generally objects to the court allowing discovery and dispositive motions in this adjudication; (2) objects to the fact that the effect of this Court's corrected order granting Solarljos, LLC's motion for partial summary judgment violated NRS 533.170(3) and (4) which he argues required that a hearing be held even if no exceptions are filed[4]; and (3) challenges whether the court's NRCP 54(b) certification of the corrected order granting Solarljos, LLC's motion for partial summary judgment was proper.

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SEVENTH JUDICIAL DISTRICT COURT
GARY D. FAIRMAN
DISTRICT JUDGE
DEPARTMENT 2
WHITE PINE, LINCOLN AND EUREKA COUNTIES
STATE OF NEVADA

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[2] Motion practice concerning various requests to the court has also been engaged in the cases involving the USA, Eureka County, Arc Dome Partners, LLC, Robert F. Beck and Karen A. Beck, Trustees of the Beck Family Trust dated 4-9-2005 and Beck Properties.

[3] Eureka County has filed an opposition to the USA's motion for partial summary judgment. Its opposition does not object that the procedure of engaging in summary judgment practice is prohibited under NRS 533.170. The USA has opposed Venturacci's motion for summary judgment and likewise does not object to the use of summary judgment as a procedure in these proceedings.

[4] Motion for stay at pg. 3; case appeal statement filed February 9, 2022, at pg. 5.

DISCUSSION

WHETHER ENTIRETY OF THE PROCEEDING SHOULD BE STAYED

NRS 533.170(2) reads as follows:

> The order of determination by the State Engineer and the statements or claims of claimants and exceptions made to the order of determination shall constitute the pleadings, and there shall be no other pleadings in the cause.

NRCP 7(a) sets forth pleadings allowed in civil actions consisting of a complaint, answer, answer to a counterclaim, answer to a cross-claim, third-party complaint, answer to a third-party complaint and if ordered by the court, a reply to an answer. NRS 533.170(2) describes the only pleadings allowed in an adjudication as the (1) order of determination; and (2) the statements or claims of claimants and exceptions made to the order of determination. The court agrees with the State Engineer that the pleadings in water rights adjudication proceedings are defined by NRS 533.170. But, the State Engineer then argues that it was error for the court to permit discovery and dispositive motions premising his rationale on NRS 533.170(2) which he reads as prohibiting any further documents to be filed in the case beyond the order of determination and the claimants' statements or claims and exceptions to the order of determination. The State Engineer's argument is without merit. The State Engineer confuses pleadings with motion practice. NRS 533.170(5) reads in relevant part, "All proceedings thereunder, including the taking of testimony, shall be as nearly as may be in accordance with the Nevada Rules of Civil Procedure . . .". Pursuant to NRCP 7(b), a request for a court order must be made by a motion. Nothing in NRS 533.170 prohibits parties from requesting the court for an order by motion practice.

This adjudication has been replete with requests for orders seeking various relief, which if the State Engineer's interpretation was sound would have been prohibited. Case management chaos would occur if the State Engineer's skewed analysis was followed by the court. Using the State Engineer's rationale, if a filed notice of exception was facially defective, no other interested party, including the State Engineer, could challenge the defect by way of a case dispositive motion to dismiss, but the interested parties would instead be compelled to prepare for an adjudication hearing consuming enormous time, expense, and judicial resources. Certainly this cannot be the demise of an adjudication case. If the effect of granting a dispositive motion renders a hearing on an exception unnecessary such a result is proper. Motions for summary judgment and discovery have been allowed in Nevada's adjudication cases.[5] In Solarljos's motion for partial summary judgment the court reviewed the record before the State Engineer in order to determine the merits of Solarljos's notice of exceptions and motion. No other interested parties were involved in Solarljos's case. The State Engineer unilaterally decided early on in this adjudication that it would not participate to defend his order of determination.[6] A hearing under NRS 533.170 was not necessary or required.

Regarding discovery, if the court in an adjudication case were limited solely to the record before the State Engineer, there would be no need for the presentation of any evidence to the district court in an adjudication case. The court has found no such

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[5] *In Re Determination of Relative Rights In and To Waters of Frankton Creek, Washoe Cty.*, 77 Nev. 348, 355, 364 P.2d 1069, 1072-73 (1961). The Nevada Supreme Court affirmed a District Court order granting summary judgment.

[6] This was an important fact this Court considered in granting Eureka County's motion to intervene on March 16, 2021.

limitation under Nevada law. In fact, NRS 533.170(3) and (5) allow, but do not compel, the court to take testimony. Admissible testimony is evidence. Nowhere under NRS 533.170 is the court's review limited to that of administrative determination record below and only to evidence offered before the State Engineer or his hearing officer.[7] Simply put, if no discovery were allowed, the evidentiary hearing under NRS 533.170 would be relegated to trial by ambush. The court rejects the State Engineer's position, it being frivolous.

The State Engineer's failure to challenge the court's order setting hearings for notices of exceptions filed on order of determination to determine relative water rights; order establishing case procedure constitutes a waiver

On December 10, 2020, the court entered its order establishing case procedure providing for discovery and dispositive motions. The State Engineer failed to challenge this order until February 8, 2022, when it filed a notice of appeal and his motion for stay. For over a year discovery as ensured by most, if not all, claimants and numerous motions have been filed and ruled upon by this Court. During this time the State Engineer has sat on his hands to the clear detriment of all parties. Needless to say, during this year the parties have incurred enormous time and expense as earlier noted. But, the State Engineer had a remedy if he believed that this Court was acting in excess of its statutory authority under NRS 533.170, that being to challenge the court's order establishing case procedure by a writ of prohibition. A writ of prohibition is the remedy to prevent the discovery and motion practice ordered as being in excess of the court's statutory

[7] See NRS 48.025(1)(c).

jurisdiction.[8] The Nevada Supreme court has considered a writ of prohibition in cases where the district court exceeded its jurisdiction in ordering the production and disclosure of privileged information. The Nevada Supreme Court has stated, "Although this court rarely entertains writ petitions challenging pretrial discovery, 'there are occasions where, in the absence of writ relief, resulting prejudice would not only be irreparable, but of a magnitude that could require the imposition of such drastic remedies as dismissal with prejudice or other similar sanctions.'"[9] The argument the State Engineer makes is that this Court has exceeded its statutory jurisdiction under NRS 533.170 by allowing discovery, and motion practice, including dispositive motions in the adjudication proceedings. For the State Engineer to wait over a year and allow discovery, motion practice and two lengthy adjudication hearings to take place without a challenge in any way to this Court's December 10, 2020, order establishing case procedure is unconscionable. The court finds that the State Engineer has waived any objection that he may have to the discovery and motion practice used in this adjudication.

A single decree involving all other claimants' cases either affirming or modifying the State Engineer's order of determination was not required in Solarljos LLC's notice of exceptions

No parties in interest, other than Solarljos, participated in its adjudication. Solarljos's argument is that the record before the State Engineer, made part of the record in the district court and reviewed by this Court, was void of any evidence to support the State Engineer's factual finding, conclusions and order of determination. The court agreed with Solarljos and entered partial summary judgment in its favor. The State

[8] See *Wardleigh v. District Court*, 111 Nev. 345, 351, 891 P.2d 1180 (1995).
[9] *Cotter v. Eighth Judicial Dist. Court of Nev.* 134 Nev. 247, 249, 416 P.3d 228 (2018).

Engineer and Eureka County disagreed and have appealed. The issues in Solarljos's case are unlike the other claimants' issues who have filed notices of exceptions, where there have been either competing notices of exceptions filed or there have been intervening parties who challenge the notices of exceptions. Several of the cases involving Sadler Ranch LLC, MW Cattle, LLC and Daniel S. Venturacci and Amanda L. Venturacci have already proceeded through evidentiary hearings and post-trial briefing. All of the remaining cases are set for adjudication hearings in March and April, 2022. Other than the Solarljos case involving a decreed amount of water in Diamond Valley, there is nothing else factually similar in the Solarljos case and the cases previously heard by the court or in those that will be heard in March and April.[10] With Solarljos LLC's motion for partial summary judgment being unopposed, an order granting its motion and certification was appropriate under NRCP 54(b).

The court finds a stay of any of the remaining proceedings scheduled to be heard March and April, 2022, is not supported by the State Engineer's motion for stay and issues noted in his case appeal statement. Further, the State Engineer's concern that multiple decrees will be potentially entered by the court contrary to NRS 533.185(1) which he alleges requires a single decree, although not supported by Nevada Law, is moot, assuming, arguendo, this legal argument has merit. Provided the remainder of the evidentiary hearings take place as scheduled in March and April, 2022, this Court will be entering a single decree encompassing the Sadler Ranch, LLC, MW Cattle LLC and

[10] See this Court's order granting Solarljos LLC's motion for certification of judgment on Solarljos LLC's exceptions in this adjudication proceeding entered January 21, 2022 at pg. 4-5.

Venturacci hearings together with the upcoming scheduled hearings. This Court's future case docket will not allow this Court time to enter individual decrees and the court's judicial time will best be used to address all cases in one decree.

Whether a stay should be granted pending the appeal by the State Engineer and Eureka County of the certification of the corrected order granting Solarljos LLC's motion for partial summary judgment

In deciding whether to grant a motion to stay pending appeal the Nevada Supreme Court considers four factors which this Court must also consider, they being: (1) whether the object of the appeal will be defeated if the stay if denied; (2) whether appellants will suffer irreparable or serious injury if the stay is denied; (3) whether respondents will suffer irreparable harm or serious injury if the stay is granted; and (4) whether appellants are likely to prevail on the merits in the appeal.[11] A movant does not always have to show a probability of success on the merits, but the movant must present a substantial case on the merits when a serious legal question is involved and show that the balance of equities weighs heavily in favor of granting the stay.[12]

The Object Of The Appeal

The object of the appeal will not be defeated if the stay is denied. The State Engineer argues that his interest in preserving the status quo is to not have any decree entered by the district court providing for the vested rights of Solarljos until the issues raised in the State Engineer's appeal have been decided.[13] The State Engineer relies

[11] *Fritz Hansen A/S V. Dist. Ct.*, 116 Nev. 650, 657, 6 P.3d 982 (2000).
[12] *Id.*, at 659, citing *Ruiz v. Estelle*. 650 F.2d 535, 565 (5th Cir, 1981).
[13] Eureka County joined the State Engineer's position on this issue as well as all issues raised in the State Engineer's motion for stay. On September 23, 2021, Eureka County filed an opposition to the USA's motion for summary judgment filed September 3, 2021. Eureka's opposition does not raise the issue that

on his position that this Court impermissibly allowed discovery and motion practice, including motions for summary judgment, as part of the case procedure.[14] As stated earlier, this argument is clearly misplaced. Further, given that the State Engineer for in excess of 40 years has allowed egregious over pumping in Diamond Valley by junior pumpers, whereby the Diamond Valley aquifer is being over pumped by in excess of 30,000 afa, the difference in the amount of water allocated to Solarljos from the State Engineer's preliminary order to his final order of determination of approximately 329 afa is insignificant. None of the other vested rights claimants, except Eureka County, have appealed the court's corrected order granting Solarljos LLC's motion for partial summary judgment or otherwise challenged Solarljos's notice of exceptions.

Consistent with the State Engineer's decision not to participate in any of the notices of exceptions he did not file an opposition to Solarljos's motion for partial summary judgment. The State Engineer's failure to oppose a dispositive motion precludes the State Engineer from challenging the court's order granting relief to Solarljos.[15] This Court cannot compel any individual or entity, including the State Engineer, to be a litigant party to an adjudication proceeding. It is the parties' "right to enforce the claim and who has a significant interest in the litigation."[16] It would have been inappropriate for the court to compel the State Engineer to defend his order of determination. That choice

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this Court exceeded its jurisdiction by allowing motion practice in an adjudication proceeding under NRS 533.170.

[14] Mot for stay at 8

[15] See *Renown Reg'l Med. Ctr. v. Second Judicial District Court*, 130 Nev. 834, 828, 335 P.3d 199, 202 (2014); 7JDCR7(7).

[16] *Pointer v. Anderson*, 96 Nev. 941, 943, 620 P.2d 1254, 1255 (1980); NRCP 17.

was his, and his election not to defend his order of determination was his alone. Additionally, the State Engineer's case appeal statement cites that he will pursue on appeal the issue of propriety of discovery and use of dispositive motions in adjudication proceedings under NRS 533.170 and whether NRCP 54(b) certification was appropriate. No apparent challenge is being made by the State Engineer regarding the substantive merits of Solarljos LLC's motion for partial summary judgment or the court's order granting the same.[17]

Finally, none of the other vested rights claimants, nor any other interested party participated in Solarljos's case for the reason that the claims and substantive issues in Solarljos case were unrelated to those of the other vested rights claimants or to anyone else. Had there been any interested party, they had the intervention procedure available, as others in this adjudication pursued.

No Irreparable Harm or Injury Will Occur to the State Engineer or to the People of Nevada

No irreparable injury will occur to the Diamond Valley water users, the State Engineer or to Nevada if the stay is denied. Should the Nevada Supreme Court reverse this Court's corrected order granting partial summary judgment and it be determined that pending the Supreme Court's decision, Solarljos used water in excess of its right, the excess use can be repaired by reducing future allocation of the amount of water that Solarljos is ultimately found to be entitled until the excess amount used was replaced.[18]

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[17] See case appeal statement, paragraph I, pg 4-5.

[18] See *United States v. Truckee-Carson Irregation District* 882 F.2d 364, 368 (9th Cir. 1989) ("stay of order releasing water to Newlands Project denied because if Pyramid Tribe prevailed in overturning the order, an amount of water equal to the amount released could be accumulated . . . out of future

The State Engineer's position is exaggerated and premised on speculation. The State Engineer couches his position that the State of Nevada "potentially" will suffer irreparable injury because water "might" be distributed incorrectly.[19] Speculation does not equate to irreparable harm. Irreparable harm or injury to Solarljos or other claimants will occur if these proceedings are stayed in their entirety. Staying the entirety of the proceedings while the appeal is pending, will result in a substantial delay in a decision on the water to which the claimants are entitled and if they are found to be entitled to more water than is allowed by the order of determination, the delay will result in the permanent loss of an additional water to which they may be found entitled. That loss cannot be made up by providing them additional water to make up for the delay because they can only irrigate the land which they own or regularly farm.

Should the court grant a stay Solarljos will not be able to pursue the development of its mining operations as previously found by this Court. Such a delay will obviously impact its business operations. This Court has previously held that the prejudice to Solarljos outweighs the prejudice to the remaining parties to this adjudication.[20] This adjudication case involves more than litigation costs and delay of litigation as the sole harm. Any delay to Solarljos or to any of the other claimants should a stay be entered as to the entirety of this proceeding would cause the claimants to have even more years of unsurety as to the vested rights they claim and an interference with their business operations. The balance of the equities lies against granting a stay, not only to Solarljos,

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allotments to the District and allowed to flow to Pyramid Lake . . .").

[19] Mot. for stay at 8-9.

[20] Corrected order granting Solarljos LLC's partial motion for summary judgment at 6-6.

but as well to the remaining claimants whose cases have been heard or will be heard in March and April, 2022.

Likelihood of Success on the Merits

Other than challenging the court's use discovery and motion practice, the State Engineer's case appeal statement fails to cite any other substantive issue(s) he seeks to challenge on appeal. As previously discussed by this Court, the State Engineer has not shown that he will prevail on appeal that this Court improperly allowed discovery or the use of motion practice, including summary judgment. The State Engineer failed to oppose Solarljos's motion for partial summary judgment. No court order or other impediment existed precluding the State Engineer from opposing Solarljos's motion.

Good cause appearing

IT IS HEREBY ORDERED that the State Engineer's motion for stay of corrected order granting Solarljos, LLC's motion for partial summary judgment pending appeal is DENIED.

IT IS HEREBY FURTHER ORDERED that the State Engineer's motion for stay of the entirety of these adjudication proceedings pending appeal is DENIED.

DATED this 24th day of February, 2022.

DISTRICT JUDGE

SEVENTH JUDICIAL DISTRICT COURT
GARY D. FAIRMAN
DISTRICT JUDGE
DEPARTMENT 2
WHITE PINE, LINCOLN AND EUREKA COUNTIES
STATE OF NEVADA

Exhibit 2

Exhibit 2

In The Matter Of:

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS

September 30, 2021

Capitol Reporters
628 E. John St # 3
Carson City, Nevada 89706
775 882-5322

Original File 9-30-21sadlone1_scoped_1.txt
Min-U-Script® with Word Index

Case No. CV2002009

Dept. No. 2

IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA

IN AND FOR THE COUNTY OF EUREKA

BEFORE THE HONORABLE GARY D. FARIMAN

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS BOTH SURFACE AND UNDERGROUND LOCATED WITHIN THE DIAMOND VALLEY, HYDROGRAPHIC BASIN NO. 10-153, ELKO AND EUREKA COUNTIES, NEVADA.
_____/

TRANSCRIPT OF PROCEEDINGS

VOLUME II

PUBLIC HEARING

SEPTEMBER 30, 2021

Transcribed by: Shellie Loomis, RPR

APPEARANCES:

For Renner, Venturacci, and MW Cattle:
Taggart & Taggart, Ltd.
By: David Rigdon, Esq.
108 Minnesota Street
Carson City, NV 89703
david@legaltnt.com

For Eureka County:
Allison MacKenzie, Ltd.
By: Karen A. Peterson, Esq.
402 N. Division Street
Carson City, NV 89703
kpeterson@allisonmackenzie.com

For the Division of Water Resources:
James Bolotin,
Sr. Deputy Attorney General
Carson City, NV 89703

(INDEX LOCATED AT THE END OF THE TRANSCRIPT.)

EUREKA, NEVADA, THURSDAY, SEPTEMBER 30, 2021, A.M. SESSION

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THE COURT: Court is in session. Please be seated. Good morning, everyone. This is the continuation of our hearing. We have the presence of the parties, Sadler Ranch, MW Cattle, their counsel Mr. Rigdon.

Eureka County, their counsel Miss Peterson, Mr. Tibbitts representing Eureka County today.

Mr. Bolotin from the Attorney General's office. Mr. Carr is present. And is it Mr. or Miss Parker present as well?

MR. BOLOTIN: Yes, Your Honor. Bill Parker from the Division of Water Resources adjudication section.

THE COURT: Very well. If any other parties, if I fail to recognize them, any other representatives from the Division of Water Resources appear, if you'll just let the Court know, Mr. Bolotin, and we'll make note for the record today.

MR. BOLOTIN: Thank you. Thank you.

THE COURT: We were (indiscernible) cross-examination with respect to the witness Mr. Buschelman.

Mr. Buschelman, I'll remind you that you're still under oath and we can continue with cross-examination.

MS. PETERSON: Thank you, Your Honor.

BY MS. PETERSON:

Q. Mr. Buschelman, good morning. Karen Peterson representing Eureka County again.

A. Good morning.

Q. And I heard testimony from you yesterday that your -- one of the things that was a little different about this adjudication and the springs that you investigated, the Romano Ranch springs and the Sadler springs, was that they had constant flow.

Do you recall that testimony?

A. Yes, I do.

Q. And you indicated yesterday that the Romano Ranch complex of springs was about 15 springs?

A. I know it was numerous springs. I don't know the exact number. I just knew it was more than eight -- eight and less than 20, something like that.

Q. And what's the basis for your statement that those springs, those between eight and 20 springs, are constant flow?

A. I believe the basis is information of observations of people such as Mr. Payne that were out there the field, other testimony from adjoining ranches such as the Sadler, and interactions -- I mean on their particular spring

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source, the adjoining ranchers.
Most of this spring complex, if you want to call it, it's the northern end of Diamond Valley, predominantly must have been fairly constant or those ranches would never have developed to the extent that they did.
So through other information that I've seen in the record, the aerial photos that would support a reasonably constant source of water to support the cultures that we've seen on the photos, even in 1946 would lead me to believe that those springs flowed some form of constantly at some rate.
It may vary a little bit, and what I mean by a little bit, it's not as if you would see a stream system that will increase its flow 20, 30 times during spring runoff and then drop to a smaller amount during the rest of the year. These sources varied a little bit from seasonal fluctuations, but nothing as drastic as we see in our stream system.
So those sources of information lead me to believe that it was a fairly constant (indiscernible) flow.
Q. And then do you still have that Exhibit book in front of you?
A. I do.
Q. The Eureka County Exhibit book?
A. Yes, Exhibit EE.
Q. Could you go to FF?

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A. Yes.
Q. And at the end of Exhibit FF are some maps. There's three pages of maps. Do you see that?
A. I see two maps at the end of it.
Q. Do you see the Romano map? It might be on the back of one of the pages?
A. Oh, three maps. It's small enough I can't quite read.
Q. Do you know if that's the Romano map?
A. I'm sorry, it's small enough that I can't quite read it to make sure that it is the Romano map. There's -- I'm sorry, I just can't read it to make sure that's what we're speaking to.
Q. You testified yesterday that when you were out on MW Cattle ranch that you had the Romano map with you and the 1946 aerial and then the Boyak map that was filed with the original proofs.
Do you remember that testimony?
A. I do. And I did have those maps with me then, yes, that's correct.
Q. Did you study the Romano map?
A. I did.
Q. And was there an oath, a jurat on the Romano map?
A. There was.

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Q. And did that jurat swear under oath that the map was an accurate plat of the lands irrigated by Mr. Romano?
A. It was an accurate map of what that surveyor surveyed and what he illustrated is what he surveyed.
Q. Did you -- sorry.
A. Yes. And I prepared these same jurats when I do a map as well and I'm familiar with the language in those jurats. And the surveyor os saying I went in the field, I conducted a survey, this is what I observed and this is what I'm mapping.
And that's -- what he's illustrating on the map is what he observed on the map. It has no bearing on what was outside of that area. And it is not all inclusive of what was -- what may have been the place of use. It is what he did on that map -- I'm sorry, in that survey at that location. That's what he's attesting to.
Q. Did you read the jurats?
A. Yes.
Q. On both of the maps?
A. I did.
Q. And is it possible that they're different?
A. There's a little bit of language difference, but the intent is very much the same.
Q. Do you know if the language is exactly the same?

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A. I would have to read it. I would have to get a copy big enough so that I could see it and read it, but I could do that if it was provided.
Q. Do you have any evidence that --
THE COURT: Just one moment. This is something that I meant to bring today, but I didn't either. I'm just going to ask a question of our clerk.
Do we have a magnifying glass?
THE CLERK: No (indiscernible).
THE COURT: Okay. All right.
THE CLERK: I'll check.
THE COURT: Let's just do that. That would help us. I had that on my notes but I didn't look at my notes so I didn't bring mine.
MS. PETERSON: For this one you may need more than a magnifying glass, Your Honor.
THE COURT: For this, yeah, (indiscernible) I might need a microscope.
THE WITNESS: Yeah.
THE COURT: It's pretty tough. And even with the light, you know, without the light yesterday it was tough, and having the light come on was better but this is challenging. Okay. Very good. We'll continue on.
Go ahead, go ahead. Sorry to interrupt, Miss

Peterson.
BY MS. PETERSON:
Q. Do you have any evidence that the sworn statement that's on this 1913 map was not accurate?
A. Oh, I believe it to be accurate, yes, I really do. Accurate -- again, accuracy to the fact that what he attested to is that I surveyed these lands and I am visually representing what I saw in the field and identified on these lands, yes, I believe that to be true.
Q. And then directing your attention to Exhibit GG.
MR. RIGDON: I'm sorry, clarification?
MS. PETERSON: GG.
MR. RIGDON: GG. Okay.
THE WITNESS: (Complies.)
BY MS. PETERSON:
Q. So towards the back of that Exhibit -- sorry, Mr. Buschelman, these pages aren't Bates stamped. I'll represent that this is the proof of claim filed for proof 4476 for MW Cattle. And your 2016 amended proof of claim is in here about halfway through.
Would you possibly be able to find that?
A. (Complies.)
Could you restate that? What am I looking for again, please?

Q. Your amended proof of claim.
A. And the map for that.
Q. Just your amended proof of claim.
A. Okay.
THE COURT: Mr. Buschelman.
THE WITNESS: Oh.
THE COURT: That may assist with small print.
THE WITNESS: Yes. That will help. Thank you.
BY MS. PETERSON:
Q. Are we going to go back to the jurat for the Romano map?
MR. RIGDON: Your Honor, while he's looking, can I have a question. I've noticed on the microphone they keep blinking green which means mute and then back to red. I just want to make sure we're getting the full record and that the State Engineer's office can hear us.
Is it going in and out or are we getting a constant record?
THE CLERK: Mr. Bolotin, can you hear everybody in the courtroom right now?
MR. BOLOTIN: Yes, I can (indiscernible).
THE CLERK: Great. Thank you.
THE COURT: And is your JAVS working?
THE CLERK: Yes.

MR. RIGDON: Okay. Perfect. Thank you.
THE WITNESS: I believe I'm there. And this is for proof 04476?
BY MS. PETERSON:
Q. Yes.
A. Thank you.
Q. So you have your amended proof, and I was going to go to the third page of that which is question 25.
A. I'm there.
Q. Do you see that?
A. I do.
MS. PETERSON: And just for the Court's reference, this is for the Romano Spring Number 2 and tributaries.
Is that correct, the proof for that?
THE COURT: And if you could direct the Court to the page that you're referring to. You said that they weren't I guess paginated.
Do you -- so I can turn it and muddle along.
MS. PETERSON: So, Your Honor, it is proof of appropriation that was filed in May, on May 31st of 2016.
THE COURT: Okay. I do have, obviously, I have GG in front of me, but I just didn't know where -- where within that GG Exhibit to turn to.

MS. PETERSON: Right. I'm sorry. And the pages are not Bates stamped. So I apologize.
It's about half way through this Exhibit.
THE COURT: Okay.
MS. PETERSON: I'm trying to get a point of reference.
THE COURT: And you may approach the bench if you would like and just show me the page, and I can maybe turn to it and I'll be -- you can bring yours up or however it works for you, Ms. Peterson. Just get on the bench there.
MS. PETERSON: I've never been up here.
THE COURT: Thank you very much.
BY MS. PETERSON:
Q. Mr. Buschelman, that's for Romano Spring Number 2; is that correct? This proof?
A. That's correct.
Q. And number 25 there -- and you prepared this proof, is that correct, in 2016?
A. That's correct.
Q. And this was an amendment to the previous proof of appropriation that had been filed for this spring; is that correct?
A. That's correct.
Q. And in paragraph 25 you indicate that the minimum

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flow needed to push the diverted water over the claimed place of use in an average year is 1.5 CFS. Do you see that?
A. I do.
Q. How did you determine that 1.5 CFS?
A. I would have to go back to my files and determine what I did to calculate that number.
Again, we're speaking to somewhere in the neighborhood of 15 springs and 15 different filings that I made at a minimum. I cannot give you that answer today without doing a lot of -- going back five years ago minimum to get my information to answer that question specifically.
And I did not receive any questions from the State Engineer regarding that number in the process of filing or going through review, so I didn't have a reason to go back and reacquaint myself with those figures so I can't answer that today.
Q. And when you filed this proof that spring was not flowing; is that correct?
A. No, it was not.
Q. And then directing your attention a few pages on in this Exhibit, there's your attachment, a narrative that's dated again May 16th, 2016; do you see that?
A. I see the attachment, yes.
Q. And directing your attention to page 10 of that

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attachment?
A. Yes.
Q. You indicate in the top bullet there on page 10; do you see that?
A. I do.
Q. That there's a total of 1,496.10 of water righted acres that have been historically irrigated by the Romano Ranch spring complex?
A. Can you say that number again, please.
Q. About half way through that paragraph?
A. Okay. I'm there now. Thank you.
Q. Yes.
A. 1,496.1?
Q. Yes.
A. That's your number? Okay. Thank you.
Q. So was the proof filed -- proof that you filed basically an aggregate of all the springs?
A. Yes.
Q. And so there isn't any information specific with regard to your calculation here of what the total duty calculated I guess for the spring complex; there's nothing specific as to each claim -- or as to each spring; is that correct?
A. That's correct.

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Q. And separate proofs were filed for each spring; is that correct?
A. That's correct. And just to clarify too, this is what you would call a spring complex, meaning based on what I could identify in aerial photos, again there was no springs flowing at this point in time, 2016.
So part of what I was doing was identifying the springs associated with the mapping that we spoke of that was associated with the Romano Ranch, and then the aerial photos that we were able to obtain.
There could have been many, many more springs or seats or areas that collected into a -- or I say that had a confluence into what you could actually measure.
So these filings would represent our best assessment of what was being developed by that spring complex, so there could have been many more sources that we could have identified if this was still an active source today, active spring complex.
Q. Well, I'm just wondering if you calculated the -- it looks like the total duty that's requested here is basically the acreage times 4.5?
A. That's exactly right.
Q. So did you back into the 1.5 CFS number for Romano Spring Number 2 based upon this duty that you had

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calculated?
A. Again, I'd have to go back through my notes and see how that was -- how that was calculated and I cannot answer that today.
Q. And then directing your attention to the Siri Affidavit which is about three more pages on in this exhibit.
A. Okay.
Q. Are you there?
A. I am.
Q. Are you familiar with this affidavit?
A. Yes.
Q. And this was, let's see, signed by Mr. Siri November 7th it looks like in 1983; is that correct?
A. Yes.
Q. And he indicates that he was born in 1910 and in 1922 his family purchased the ranching property known as the Romano Ranch; is that correct?
A. Say that again, please. I'm sorry?
Q. I'm sorry, I'm looking at the first paragraph of the -- first full paragraph --
A. You go.
Q. Of the affidavit?
A. Thank you.
Q. And he -- Mr. Siri indicates that he was born in

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1910 and that in 1922 his family purchased the ranching property known as Romano Ranch; is that correct?
A. That's correct.
Q. And he started working on the ranch at that time?
A. Yes.
Q. And then he goes through and he lists -- he lists springs number 1 through 10; do you see that?
A. I see 1, 2, 4, 5, 6, 7, 9, 10, but there's a few missing in there. It's not inclusive. There's a couple of springs that are not noted.
Q. For the springs that he lists in his affidavit he also has acreage that he claims was irrigated by that spring; do you see that?
A. Yes.
Q. And would you -- would you -- if I represented to you that adding up all that acreage listed in his affidavit totalled 780 acres, would -- would you agree with that subject to check?
A. I would have to do the math, but I would be willing to accept that. Say the number again, please. 700 what?
Q. 780 acres?
A. Thank you.
Q. And again, that's different from the 1,400 acres

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that you claimed in your amended proof; is that correct?
A. It is correct.
Q. And do you know how many acres were claimed in the 1913 Romano map?
A. I would have to review that map to give that you answer.
Q. It was less than 1,400; would you agree?
A. Yes.
Q. And the Boyak map that was filed for this spring, the acreage claimed was less than 1,400; would you agree with that?
A. That's correct.
Q. Then directing your attention to Exhibit HH.
MR. RIGDON: Is that H as in Howard?
MS. PETERSON: H as in Helen.
MR. RIGDON: Helen. Okay.
THE WITNESS: I'm there.
BY MS. PETERSON:
Q. And this is the field investigation report prepared by the State Engineer's office for the Romano Ranch springs?
A. Yes.
Q. And that indicates that the State Engineer's office was out there for two weeks in June of 2017?

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A. Yes.
Q. And were you present when the State Engineer's office was doing their investigation?
A. No.
Q. Directing your attention to page 6.
A. I'm there.
Q. Okay. And you had some testimony about this map yesterday; do you remember that?
A. I do.
Q. And this is the map where -- and this is prepared by the State Engineer's office where they overlaid based on the federal ground the proof and acreage that you had filed and then the proof and acreage that Boyak had filed for these Romano Ranch claims; is that correct?
A. That's my understanding of what this map is illustrating, yes.
Q. And you indicated in your testimony yesterday that the Boyak map for the Romano Ranch did not include any federal lands; do you recall that testimony?
A. I do.
Q. And if you look at this map -- and Boyak's, his harvest is outlined in red; do you agree with that based on the legend?
A. Yes.

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Q. And the blue represented on this map is the federal ground; is that correct?
A. Yes.
Q. And do you see in section, oh, boy, I think it's Section 13?
A. Yes.
Q. That Boyak has mapped land on the federal ground?
A. Yes.
Q. And also then in Section 12 up to the north there in Section 12?
A. Yes.
Q. So you would agree then that the Boyak map does include land -- federal ground in the Boyak map?
A. Yes.
Q. And then have you read this report?
A. Which report?
Q. This is the investigative report by the State Engineer's office?
A. Yes.
Q. And directing your attention to page 14.
A. I'm there.
Q. Do you see a heading that says "meadow"?
A. I do.
Q. And then do you see a second full paragraph under

that heading?
A. Yes.
Q. Do you agree with the statements and the conclusions that the State Engineer's office made in that paragraph?
A. No.
Q. Did you present any evidence to the State Engineer or in this proceeding that would refute that claim?
A. None was requested.
Q. None was requested by whom?
A. The State.
Q. And I guess just to back up a minute, just so the Court understands, the investigative report prepared by the State Engineer for the Romano Ranch, you've read it; correct?
A. I did.
Q. And is it fair to say that the State Engineer's office had the Romano map, they had the Boyak map, they had your map, and they tried to see if there was consistency between all those documents and if there wasn't consistency document, you know, what was inconsistent; would you agree with that in general?
A. I don't know what their process is. I'm not sure if they did all those things that you just described so I can't say yes or no on that.

MS. PETERSON: Did we lose the (indiscernible).
THE COURT: Let's just be at ease for a moment.
THE CLERK: Mr. Bolotin, can you hear us?
MR. BOLOTIN: I can. The picture went off and the sound went out but now it's back thank you.
THE CLERK: It looks like we got bumped offline. Thank you.
BY MS. PETERSON:
Q. So would it be fair to say in this report, this again is the State Engineer's investigation for the Romano Ranch, if -- did you or MW Cattle present any information to the State Engineer that would contradict any of the findings that were made in this report?
A. None that I'm aware of. Let me back up. The map that I provided is in contrary to what this report says, but that was prior to this report being put together.
So in a sense, yes, what I found, what I showed on my map conflicts with what they find in their field investigation or their findings.
So I guess that would be my -- but after that, no, we supplied no other additional (indiscernible).
Q. Right. Just so we know the process and the Court knows the process, you submitted your claim in 2016; is that correct?

A. Correct.
Q. In 2017 the State Engineer's office went out and investigated the claims; is that correct?
A. Based on this report, yes.
Q. And then in 2019 there was a hearing on the objections to the State Engineer's Preliminary Order of Determination; is that correct?
A. Yes.
Q. And the Preliminary Order of Determination that the State Engineer issued relied on this field investigation; is that correct?
A. That's correct.
Q. And so no evidence was presented -- well, there wasn't an objection hearing, right, for MW Cattle in front of the State Engineer; correct?
A. The client that hired me to do this work is not the client that owns it today. That client did not call me and request an effort on my part to respond to the State's preliminary findings.
Q. And as we're sitting here today in court, no evidence has been presented by current owner to refute any of these conclusions made by the State Engineer in his investigation?
MR. RIGDON: Objection. When she said no

evidence has been presented, we filed notices of exception, objections were filed for the preliminary order, and Mr. Buschelman testified a long time yesterday and provided evidence to this Court about differences with the State Engineer. So I'm not sure the context of the question saying there's no evidence been presented; it just refutes what we've been through for the last day.
THE COURT: Okay. Well, for the record, the filings aren't evidence. Mr. Buschelman's testimony is evidence that the Court's taking and so it's whatever he had testified to. And, I mean, can you question him with respect to his prior testimony.
That's appropriate from yesterday as to whether or not he, he considers what he testified to evidence contradicting the State Engineer's report. I mean, that's an appropriate question.
MS. PETERSON: Okay. And I was trying to move things along, Your Honor.
THE COURT: Okay. Yeah.
BY MS. PETERSON:
Q. Let's direct your attention to the conclusions of the State Engineer's report on pages 31 and 32.
THE COURT: And what page were you on again?
MS. PETERSON: It's pages 31 and 32.

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THE COURT: Thank you.
THE WITNESS: I'm there.
BY MS. PETERSON:
Q. Are you familiar with these?
A. Yes.
Q. So for example, let's go on page 32 and the conclusion under VO4479, 10916 and 10917. It's about in the middle of the page; do you see that?
A. I'm sorry, can you say that again.
Q. In about the middle of the page there's conclusions that the State Engineer has with regard to VO4479?
A. This is on page 32?
Q. 32.
A. Oh, okay.
Q. Do you see that?
A. Yes, I do. And say again?
Q. So the last finding that the State Engineer -- the last conclusion the State Engineer has there is an isolated piece of meadowland claimed in the amended submittal has no means of receiving water.
Do you see that?
A. I do.
Q. So has any information been submitted to this Court in this proceeding that would contradict that finding by

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the State Engineer's office?
A. The 1946 aerial photo and also the 1913 map would conflict with that finding.
Q. So is it I guess your testimony that you disagree with all these findings made by the State Engineer's office?
A. When you say all of them, what do you mean?
Q. All of them on pages 31, 32 and 33?
A. No, I would never say all. Never.
Q. You testified yesterday about abandonment. Do you recall that testimony?
A. Did you say abandonment?
Q. Abandonment, yes.
A. Yes.
Q. And do you have your Exhibit binder in front of you from your counsel from yesterday?
A. Can I fold this back up or do you want to keep this open?
Q. I -- whatever you want. I'll probably go back to it?
A. The same page or?
Q. Probably not. Probably a different page. And I guess just following up on that last question with regard to that one finding in the State Engineer's report that there was no means to get the water -- there was an isolated piece of

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meadowland in the amended submittal that has no means of receiving water; do you remember that? We just talked about that?
A. Yes.
Q. And you said that was contradicted by the 1946 aerial?
A. When I read through the State's findings in particular to -- not their conclusions but how they obtained it -- repeatedly through their findings they said that certain things were illustrated on the photo, certain things were illustrated on the Boyak map or not illustrated on the photo, or not illustrated on the map, but consistently through that they said it was shown on the 1913 map.
I went through and highlighted all of those. And consistently through their field report they say it may not have been shown here, but it was shown on the 1913 map.
So there was a ton of -- I'm sorry, there were many references even in their own field report that may not have shown up on some of these other sources, but it did show up on this 1913 map.
So that's why I'm saying that I disagree with that it's inconclusive, because there was evidence that they recognized that may not be shown on some sources of data and mapping, but however it was shown on this one.

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So that's a part of the basis for my answer that I don't agree with that finding.
Q. Right. But they were on the ground during their investigation; is that right?
A. On ground that hasn't been irrigated in three decades, four decades.
Q. And how far -- how far up is that aerial map?
A. Up --
Q. 1946. How high up in the sky is it?
A. I have no idea. I don't know what elevation they fly those planes to take those pictures.
Q. All right. Let's go to abandonment. This is the -- State Engineer discussed this. It's Exhibit 180 on pages 138 to 141?
A. Is that Exhibit 180?
Q. 180, yes.
A. And pages again, please.
Q. 138 to 141.
A. I'm on page 138.
Q. Have you read this portion of the Order of Determination?
A. I have read the Order of Determination, so yeah, I would assume that came across these pages, yes.
Q. And my understanding of the State Engineer's

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determination with regard to the abandonment, and again this is for MW Cattle, is that the original homestead entry and desert land entry claimants, their contracts had been cancelled by the federal government between 1913 and 1919; do you recall that?

A. Yes.

Q. In the Order of Determination?

A. Yes.

Q. And there had been no intent by anyone since then to obtain title to that land -- private title to that land. Is that a fair assessment of State Engineer's determination?

MR. RIGDON: Objection, no intent -- that's vague. No intent to what? I'm not sure I understand that question.

MS. PETERSON: Okay.

THE COURT: Okay. Well, so you're saying that it's vague.

MS. PETERSON: I'll --

MR. RIGDON: Vagueness, yes. Objection is vagueness.

THE COURT: Okay, all right.

MS. PETERSON: I'll rephrase.

THE COURT: If you want to clarify it.

MS. PETERSON: Sure. Okay.

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BY MS. PETERSON:

Q. So you recall -- you recall the language in the Order of Determination that the State Engineer found that those homestead entries and the desert land entries for that federal ground, those had been cancelled between 1913 and 1919; do you remember that in the Order of Determination?

A. Yes, I do.

Q. And that the State Engineer found that since that time, since 1919, there had been no efforts by anyone to obtain private title to that ground. Is that your understanding of what the State Engineer's finding was?

A. Well, they make that statement, but I don't know how they came to that conclusion.

Q. Do you have any evidence that anybody obtained private title to that federal ground?

A. That they obtained it or they sought to obtain it?

Q. Either.

A. You'd have to go to the department of archives in Washington, D.C. and request a data request and look for that particular area. There could be -- I've done this for other clients where we've sought documentation from archives and there's lots and lots of paperwork that are sometimes in those archives that support additional attempts to go to public --

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I'm sorry, from public to private, but never anything in the local records here or others.

So you'd have to go to the department of archives at a minimum and so that's why I said I don't know what efforts they went to to make that conclusion.

There could have been efforts to try to do that, but they don't say that they tried to get it from anywhere else to verify that (indiscernible).

Q. Has MW Cattle presented any information in this proceeding that would show that there was any private ownership of that ground?

A. Any private ownership?

Q. Right.

A. Is that your question?

Q. Yes.

A. Well, there's not -- I mean, it's obvious even today that in order to get private ownership and lose it, that would be of record. One, it would have to have a record to go from public to private, and then there would have to be another record that went from private to public. So no, I have not seen anything like that.

But attempts -- an attempt to go from public to private, those records could still be out there and not discovered.

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Q. Okay. But MW Cattle hasn't presented any of that information in this proceeding; is that correct?

A. It was never requested.

Q. Is the State Engineer required to prove the proof of appropriation for the Claimant?

A. No.

MR. RIGDON: Objection, calls for a legal conclusion on what the State Engineer is required to prove. He's testified yesterday that he's not a lawyer.

THE COURT: The objection is sustained. And I understand where you're going and that it does have any information.

BY MS. PETERSON:

Q. With regard to the Romano property and the federal -- the federal land that's claimed in the proof of appropriation -- the amended proof of appropriation that you applied for, directing your attention to that, you claimed I can't remember what the figure was. Is it about 400 -- well, how much federal land was claimed in your amended proof for Romano?

A. I can't give you an acreage figure, however I did go beyond the extents of private ownership and look for what I thought to be evidence of irrigation or water application to create culture and that extended beyond those boundaries of

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private lands.

Again, land ownership has no bearing on water title nor vested rights owned by an individual. So the title to the land had no bearing in my research because it does not play into the -- you can irrigate public lands and get a water right on that and obtain a water right to that.

Q. Do you have any evidence that Romano or anybody that had possession of the private ground for Romano in all that period of time that the federal land -- you claim that the federal land had water put on it, did anybody use what was ever grown on that federal land?

A. Yeah. We have the -- at a minimum we have the 1913 map and the Boyak map which show culture on public lands and testimony that they -- that supports those that yeah, they use for harvest meadow, diversified pasture, which would all lead itself to the point that they are putting cattle out there otherwise they wouldn't be irrigating it and causing growth -- I mean, cultures to grow.

Q. Well, the Romano map had fences all around where the private ground stopped or they had fences on the federal land; would you agree with that?

A. I agree that fences make no determination of private versus public. You can put a fence anywhere; it doesn't mean that you own on one side and don't own on

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another.

Q. But --

A. Fencing is -- I'm sorry -- fencing is not a criteria for ownership.

Q. But you claim land in addition to the federal land that was -- you claim federal land in addition to the federal land that was claimed by Romano in the Romano map; is that correct?

A. I claimed water was being applied to federal land, yes.

Q. And so in that land that you added to the proof for federal land, what evidence you have that anybody actually used what was -- or harvested what was grown on that federal land?

A. Cattle. Cattle can be used to harvest. You can -- a cow can be evidence of harvest culture or meadow culture or diversified culture.

We know that they had cattle, we know they had horses because they say that. So just because I don't go out there with a piece of machinery in 1880, which there was very little, if any, machinery that would do that, I could send my cows out and my horses, they would harvest that land in the form of eating it, digesting it, and creating more revenue with cows and horses.

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So I don't understand your question.

Q. The question was what evidence do you have that the federal land that you added in 2016 to the amended proof of claim was actually utilized -- your priority for that proof is 1861; is that correct?

A. That's correct.

Q. The Pony Express?

A. That's correct.

Q. What evidence is there for the 15 springs that you claim with a 1861 priority based on the Pony Express Station at Sulfur Spring that there was any use of that federal land that you added to the amended proof?

A. The Pony -- well, one, that the Pony Express existed; that -- that function or that commercial enterprise existed on that ranch. It doesn't take a lot of thought process to go to the point where in order to support that commercial process, you had to have animals.

The animals have to have feed. Animals have to have water. People have to have food and water and so -- and there's cattle. It's our history of our state tells us that they put cattle all over this state.

And so to say that it wasn't used you would have to say there were no cattle here, that there was no mechanism -- there was no reason for someone to go out there

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and establish even a residence or a house or anything if they couldn't feed the cows or the horses.

So that's evidence in my mind. It's just prima facie, it's there.

Q. But yesterday you testified that you didn't even know how often the Pony Express station was used in 1861. Do you agree with that testimony yesterday?

A. I didn't say that. I didn't say how often it was used; I said it existed.

Q. But you didn't know -- how often was it used in 1861?

A. You would have to go back to the history of the Pony Express. I don't know what routes they were delivering mail on or how they worked. I can't answer that.

Q. With regard to the Sadler Ranch, the extra federal land that you added to the proof of claim that you filed in 2016, do you have any evidence that that shows that that federal land that was added, whatever culture you contend was there was actually used or harvested --

A. Yes.

Q. -- by Sadler?

A. Yes.

Q. Is it -- is your answer the same as you just testified for MW Cattle?

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A. Well, in addition to that, we were able to identify haystack yards that were on the perimeter of what you would consider both public and private lands, and through aerial photography and other mechanisms you can see that the fields just didn't stop at private land, they continued on to public.

So if you're gathering hay you're going to gather hay and put it in that stack yard irrespective of whatever line would distinguish between public and private. So yes, that evidence is pretty clear, especially on the Sadler.

Q. And you're relying on the 1946 aerial?

A. And other documentation. We had the 30 circa photo that we took and we identify stack yards -- haystack yards out in that photo, and we have other testimony that says the same thing on the Sadler from diaries. They had a 70-man hay crew on the Sadler to do just that.

So again they're not going to take some line in the pasture and go oops, we don't own across that line, we're not going to harvest. They harvested.

And they go back to the fact that it was all federal land before it ended up into private. So the distinction between public and private as far as the water rights is concerned is a nonissue.

Q. And then I'm going to direct your attention to

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conveyance losses. You talked about that yesterday, and ditches; do you remember that testimony?

A. Yes.

Q. And I believe you testified when you worked for the U.S. water master that you would test the ditch efficiencies by putting water in the ditches and seeing if the efficiencies in the decree were upheld based upon your testing.

Do you remember that testimony?

A. I didn't test whether it was being upheld. We tested to see what they were, what the efficiencies were on a ditch system. We didn't necessarily go in and try to see if they were violating some -- some particular directive from the decree.

Q. Okay. But you had a method where you could test the ditches, the efficiencies; is that correct?

A. That's correct.

Q. And did you attempt that with Sadler in this case --

A. Again --

Q. -- today?

A. I'm sorry, go ahead.

Q. Did you attempt to do any kind of testing for the efficiencies on the ditches on the Sadler property?

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A. Again I remind you most, if not all, of the water in all of these springs had been dry for decades, three decades, four decades, 40 years. So to do what you're asking, no, no one could do that in today, in today's world, no.

Q. But water was used on the Sadler Ranch in 2016 when you filed your amended proof; isn't that correct?

A. That is correct.

Q. And the ditches were being used; is that correct?

A. A very small portion of the ditches next to the source, but beyond that those -- the spring had dried up in such away that you couldn't even get close to going out into the farther reaches, I mean, even within a short distance in a sense, beyond what was satisfied by that reduced (indiscernible) spring to even understand ditch losses into the other portions of the ranch.

So even if I was to try to attempt to do it under what you're saying in the short distances, it would have no relevance on what was actually transported to the further reaches of the ranch so it wouldn't be an accurate figure.

Q. So you used the information that's in your Exhibit 110 to come up with your ditch efficiencies; is that correct?

A. I utilized -- yes, I reference what I utilized in there to come up with those efficiencies. I didn't create

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those efficiencies. Those efficiencies were established by the Department of Ag and the Natural Resource and Conservation Service.

So those efficiencies were identified as examples, not precise, but examples of efficiencies that they found in their studies on flood irrigation systems throughout the west, not just in Nevada, but in other -- other systems.

And they also go on to explain a lot more that even the 40 percent efficiency in some cases was a high efficiency based on other parameters that would affect it. So you'd have to read the report to understand what it was.

I just used these general three that they had in those reports to establish an idea here that I laid out on my draft to see if the 4.5-acre-feet per acre as identified by Mr. Boyak in his original filings was a reasonable amount.

Q. And the efficiencies that you used that you took from the United Nations publication; is that correct?

A. That is based on a department of agricultural findings that was used to support a United Nations program.

Q. And that had no relation to the MW Cattle property or the Sadler property; is that correct?

A. Oh, absolutely. It was a general western states arid conditions type of study. And they used -- in that study they actually looked at conditions that would be similar, if

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not very similar, to what we see in Diamond Valley, the northern end of Diamond Valley in the flood irrigation system.

So that system, whether it was in 1850 or in 2050, is still the same types of soil. It wasn't time certain. It was a condition of what was in the -- the source of water, the types of ditches, the types of improvements to make those ditches more efficient. The study went on to explain a lot of different parameters that would affect efficiency.

And then they came up with three different scenarios, 40, 50, and 60 percent, indicating 40 percent was you know, that's a low efficiency, not necessarily the lowest, but it is the low efficiency and the medium efficiency and the high efficiency that would be for a flood irrigation system.

Q. But I thought your testimony yesterday was that all the duties for all these specific properties in this Diamond Valley adjudication needed their own specific duty calculation?

A. I didn't. The State doesn't. I think --

Q. But you used a general efficiency publication and not specific information regarding MW Cattle ranch and Sadler Ranch for your opinion as to duty; is that correct?

A. You would have to conduct a study on that particular ranch with water, which we don't have, to come up

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to that conclusion, which we can't because we don't have the water source act. So no, no, you can't do it, even if you wanted to today.

Q. How much is being irrigated right now on the Sadler Ranch?

A. I have no idea.

Q. Have you been there since 2016?

A. Yes.

Q. You read the State Engineer's investigation for the Sadler Ranch field investigation?

A. Yes.

Q. Do you agree with the information presented in that investigation as to what was currently in production in the Sadler Ranch?

A. I don't know. I'd have to look at it. I'm not sure. And I don't know what time frame they made that determination and what sources of information they used to determine that. I'd have to see all that information before I could answer your question.

Q. And then just getting back to Exhibit 110, you, you came up with your average -- I believe it was 4.97; do you remember that testimony yesterday?

A. Yes.

Q. And that -- that was adding all the numbers in

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the first column there of your chart; is that correct?

A. No.

Q. Oh, okay. Tell me how you got to 4.97?

A. I took the highest efficiency of -- and that was for a highly managed -- let's see -- low managed pasture grass at 3.33-acre-feet per acre. And I went to the lowest efficiency for -- under 40 percent for alfalfa.

I was looking for extremes. I was looking for the highest efficiency and the lowest efficiency figures, and I averaged those to come up with that number. Simple. Add the two together, divide by two, and that's your average.

Q. So you didn't do an average based on the information contained in your chart here for the three specific crop cultures that the State Engineer had listed in the Order of Determination?

A. I'm sorry, can you say that again, please?

Q. You didn't -- you didn't take an average for each crop that was listed in the State Engineer's Order of Determination based on the information contained in your Exhibit 110?

A. No. It would have increased it beyond 4.97; it would have made it a higher number. I was looking at the max -- I was looking at the extremes, high and lowest. That was my goal.

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And again, my effort in this was to see if the 4.5-acre-feet per acre that was defined by Allen Boyak when he submitted the original proof, if that was a reasonable number or if it was something that I needed to go in possibly and document a higher number through other research.

So I felt that the 4.5 was a reasonable request by Mr. Boyak on his original -- or a reasonable request. It's not that. It's a reasonable number that reflected historical use on that parcel at 4.5-acre-feet per acre consumption of water at the source. You divert the water from the source, that's where you're measuring the 4.5.

THE COURT: Ms. Peterson, let me interrupt just so that I have the figure. I have the lowest figure from your testimony of 3.33. What was the highest figure you used on this Exhibit?

THE WITNESS: 6.25.

THE COURT: Very well. Thank you.

MR. RIGDON: And Your Honor, it was represented to Mr. Buschelman that the number yesterday that he testified to was 4.97. Just to clarify, I believe what he testified to yesterday was 4.79. I just want to make sure that's accurate.

THE COURT: Oh thank you.

THE WITNESS: Thank you.

MS. PETERSON: Thank you, thank you.

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BY MS. PETERSON:
Q. So not to belabor this too much, Mr. Buschelman, but you took the highest efficiency, that 6.25, from the, like, the alfalfa column; correct?
A. I'm sorry, could you say that again, please?
Q. You took the 6.25?
A. Yes.
Q. Right? And that's in the first column; right?
A. Correct.
Q. And that's the alfalfa column?
A. It is.
Q. And then you combined that with the third column; correct, the lowest number in the third -- sorry, the 3.333 in the third column; is that correct?
A. It's a tongue twister, yes.
Q. Okay. What's the third column? What crop does that represent?
A. Low managed pasture grass.
Q. So you didn't calculate based specifically on the specific crop culture; is that correct, in determining your 4.5?
A. No. Again my exercise was to determine if Mr. Boyak's 4.5-acre-feet per acre was a reasonable request, keeping in mind that that particular duty would apply -- I

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mean, we have a -- when you divert water out of that source you're applying it to multiple cultures below that.
So you've got ditch losses that are going to be going from the source to all of these different sources, hay, harvest crop, which is defined in here as both mechanical harvest and nonmechanical harvest which is still harvest crop of the highest duty, high managed meadow which is one-tenth of an acre-foot less.
And then at the very, very end -- I'm sorry, I'm blending two things. I don't even know at this point, I'd have to look if there was any diversified pasture in Sadler. I don't believe there was.
So anyway, I took those two just to see what it would be. My goal was here to say if we deliver 4.5 acre-feet per acre at the source, we put that in a ditch and cast it out on this irrigation system, is that a reasonable amount to actually create a culture and support that culture.
And my answer was yes, based on what Mr. Boyak (indiscernible). I could have gone in and done extensive more work based on historical and these studies and come up with duties that were considerably different, or a range of duties, but I didn't. I was there only to see if the 4.5 was reasonable.
And again, in many cases such as these, you have

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to sit down and beat up the technical stuff and you're going to sit across from each other and go it could be there, it could be this. These numbers are widely apart. These duties in most cases are agreed to and not necessarily supported totally by data.
But both sides finally say well, we can beat you up if it's a high number, and we can beat you up if it's a low number, but we're going to sit here all day and debate it. Let's just get a number out there that we can work with. Both of us kind of say yeah, that's reasonable, and move on.
And that's essentially what's happened in other decrees that have gone through preliminary order of determinations and then finally get to a point where it works into a final decree.
Most of those decrees that I'm speaking of had 30 years from the preliminary -- from the start through the preliminary to the final. So they had an opportunity to take that preliminary order, go out under a water master or guidance from some Commissioner and see if it worked.
If it didn't work, then they could come in, amend the preliminary and say wait a minute, we may have said 4.5, but you know, really it should be 5. Or wait a minute, that might have been a little generous, let's knock it down to 4.
So what was reflected in the preliminary had

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time, decades to work with it and then finally get to the final where they could come and say yeah, 4 works, we didn't need (indiscernible).
So that's how those numbers were generated. We don't have that here. One, we don't have 30 years to make this thing work, and two, we don't even have the water if we could. So 4.5 in my mind was a reasonable number.
Q. And then I'm going to move on to another subject. You used a lot of aerial photography in your analysis; is that correct?
A. Yes.
Q. And are there any photos going back prior to 1946?
A. Yes. Not aerial.
Q. Aerial photography?
A. Aerial photography, no, not that I'm aware of. And I sat with the State Engineer's office during this process to try to find data to see if they had anything. They, staff at the State, didn't have any other information. I even contacted, oh gosh, Department of Ag, USGS, other agencies.
There's kind of a clearing agency you can go to for aerial photography work, historical. University of Nevada is really good at some of that stuff. And this was the one that we -- (indiscernible) --

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Q. Do you know that photography is approximately 80 years past the claimed priority dates for these water rights; is that correct?
A. Beyond the claimed title -- or priority?
Q. Past the claimed priority dates for these water rights?
A. It's many, many years. I can't give you an exact number. But yeah, it's in that magnitude.
Q. Do you know pre-1905 how many cuttings MW Cattle had on their ranch?
A. The diary that we were able --
Q. MW Cattle?
A. Oh, MW Cattle. No.
Q. So now I'm going to direct your attention to the doctrine of relation back.
A. May I expound on that?
Q. Oh, absolutely. Of course.
A. Do you mean cuttings where a mechanical device would go out and cut the hay and stack it and then feed it later, or defined in the final as whether you take a cow out there, harvest it, take a cow off, let it grow, put the cow back on and harvest it again.
Can I have you clarify that, please.
Q. Well, pre-1905 what do you know about how many

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cuttings in however manner there were on the MW Cattle ranch?
A. No.
Q. Now, I'm going to direct your attention to the doctrine of relation back. Do you remember you had some testimony about that yesterday?
A. Yes.
Q. And how -- how long can that apply, the doctrine of relation back?
A. That would be a determination on the part of the court. And that's -- that was reinforced by the State, the adjudication department. In certain instances the doctrine of relation back actually extended beyond 1905. In other cases, it didn't. So I can't answer that question as a definitive date.
Q. In this adjudication, I believe you've claimed some of the acreage based on the doctrine of relation back; is that correct?
A. No, not based on that. What I've done is I've said that prior -- that my research and the information that I've shown convinces me that this water was put to beneficial use well in advance of 1905.
But I don't know if there was fields in -- developed in 1890, 1899, 1900, 1901, 1902, I didn't go into that kind of a detail. But based upon what I found -- all of

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the Information that I found supported the fact that these waters were put to beneficial use prior to 1905.
And again, a basis of that is these are springs that service one ownership that flow year round and there's no stopping it; it continues to flow. It's not like can you cut a ditch off and return the water to another main system. This flows onto your ranch 24/7 365 days a year. That water is going to be put to beneficial use there all that time.
So if these springs are flowing well before we even showed up in 20 -- or in 1860, they're going to continue to irrigate and put water to beneficial use after 1860 until they are dried up.
Q. But do you have -- if I'm understanding your testimony today correctly, you don't have any figure, acreage figure as to how much water may be claimed under the MW Cattle claim based on the doctrine of relation back; is that correct?
A. It was never requested by the State Engineer, never -- sorry by the State Engineer's office nor required it.
Q. And would your answer be the same for Sadler Ranch?
A. Yes.
Q. And then I want to direct your attention to you had had testimony yesterday about the net irrigation water requirement publication by the State Engineer's office.

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You're familiar with that?
A. I am.
Q. And I don't know if you'll need it for these questions, but it's in the binder -- our binder as Exhibit AA.
MR. RIGDON: Is that AA?
MS. PETERSON: AA, alpha, alpha.
THE WITNESS: I'm there.
BY MS. PETERSON:
Q. Okay. And you're familiar with that publication?
A. I am.
Q. And do you know if the characteristics of the soil was examined in Diamond Valley for purposes of the consumptive use figures put in that report for Diamond Valley?
A. Say again.
Q. Do you know if the soil characteristics of Diamond Valley were analyzed in determining the consumptive use figures made in that publication for Diamond Valley?
A. I know the premise for what this was put together and I know that there was a different net irrigation water requirement for each basin.
I don't think and I don't believe that the State Engineer's office or whoever puts this together for the State Engineer's office went out there and did a soil sample of each basin in the state to come up with a determination of how it

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would affect net irrigation water requirement.
It would be an extensive undertaking to go to every basin, even using the information we have through natural resource conservation service and others. That data may have been used, which I can see. They would have used that as a reference. But I have no idea if they went out there and somehow personally or effectively for this study did that type of an analysis.
Q. Do you know if flood irrigation versus wheel line irrigation made a difference for the consumptive use figures that the State Engineer -- or that publication, I'm sorry, came up with for the consumptive use figures in the basins?
A. The net irrigation water requirement?
Q. Yes.
A. I don't.
Q. And you said yesterday that the net irrigation water requirement was a water requirement of the plant, right? Do you remember that?
A. That's what I read and what I've been told by the State Engineer's staff, yes.
Q. Okay.
A. Let me qualify that. That's the net, not the total, because you still have -- they subtract out the effective precipitation to get to the net. So there is an

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actual figure for what the plant requires to grow which is less -- I'm sorry -- more than the net. The net figure is less than what the plant actually needs.
Q. And kind of to use your terminology for at the field, the head of the field, I kind of look at this as consumptive use at the plant; would you agree with that?
A. Yes.
Q. Do you have any different consumptive use data -- consumptive use data for Diamond Valley for these three types of crops that are referenced in the State Engineer's Order of Determination?
A. Well, the State Engineer does through certificated groundwater rights and metered rates that have been applied to a number of cultures that are being grown in Diamond Valley.
So yeah, yeah, there's other data out there.
Q. Well, consumptive use?
A. Yes.
Q. But not beneficial use, consumptive use?
A. Yes, this would be -- I'm sorry. I'm sorry to interrupt you. Go ahead.
Q. And again there's a distinction, not beneficial use and what's applied under a certificate, but consumptive use?

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A. You'll have to define the difference between the two of those.
Q. Well, the consumptive use is the water that that's actual consumed by the plan?
A. Okay.
Q. Would you agree?
A. The net irrigation water requirement, that's what you're referring to. Versus what it takes to deliver that to that plant?
Q. Correct?
A. Those are two different things.
Q. Right. So do you have any -- I know you just referenced certificates?
A. Right.
Q. But do you have any different consumptive use data for Diamond Valley for those three crops? Net irrigation water requirement if that's how you want to refer to it?
A. My chart that I used in my exercise is all based on this report, on the report that was prepared by the State, which was I utilized the net irrigation water requirement and applied the efficiencies to the net, not the gross, but the net irrigation water requirement to come up with my two -- the high low number and then the average of 4.7 acre-feet per acre as a consumptive use.

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Q. Are you aware of the 9th Circuit case that determined for the Walker River that vested rights under the Walker River Decree that the consumptive use figures in the net irrigation water requirement publication issued by the State Engineer -- well, and that was for Mason and Smith Valleys, that those consumptive use figures were accepted by the 9th Circuit? Are you aware of that case?
MR. RIGDON: Objection, calls for a legal conclusion.
MS. PETERSON: I'm just asking if he's aware of the case, Your Honor.
THE COURT: The objection is overruled. We'll go to that. Go ahead.
BY MS. PETERSON:
Q. Are you aware of that case?
A. Can you further describe that, because I'm very aware of what the Federal Court did when it came to finalizing the Walker River Decree and there were no duties specified in that decree, only flow rates.
The Walker River Decree C-125 did not go in and specify a duty. There was no duty found in that decree at all. However, there were flow rates assigned to the heads of ditches. As a result of that, if you expand it out, there's a variety of duties that can be calculated from that. But the

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decree itself does not specify a duty.
Q. Right. But in the last five years there's been a case by the 9th circuit that accepted the consumptive use figures for the net irrigation water requirements, those consumptive use figures for Mason and Smith valley for purposes of the decree; are you aware of that case?
A. No. And again I go back, this is pre-1905, not 20 -- five years ago you said, 2011 or 2018, 2017. This is again our exercise is prior to 1905. So any of those duties that would come up in that court would have the benefit of all our modern technology, delivery systems, lined ditches, all of that that would have gone to establish those duties that we would have shown or seen in a court ruling or a decision or a measurement done today.
This is pre-1905 under rudimentary irrigation systems. No equipment. Very little -- I mean, very little ability to have more than a few people to dig a ditch. And so the duty calculation, if you were to do it in 1860 versus 2016, it's a whole different duty calculation. So I don't know how relevant it would be even if it was today.
Q. Well, I just asked you if you knew if there was a difference in the net irrigation water requirements contained in that report by the State Engineer, if there was a difference based on flood irrigation versus wheel line

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irrigation and you said you didn't know?
A. I didn't know, but I do know this, that's 2016. This is 1860. Big difference. Because all of those calculations that you're talking about are based on modern systems, modern ditches, equipment, land leveling, all of that.
None of that -- none of that technology was available to create the efficiencies we have today and apply those efficiencies from today to 18 -- prior to 1905.
Q. Do you -- and I'm directing your attention now to a different subject. Do you -- when is the last time you've been on the Saddler Ranch property?
A. I had breakfast there this morning.
Q. Do you know if any of that land on the Sadler Ranch has been leveled for irrigation purposes?
A. I don't.
Q. How about for MW Cattle?
A. I don't know.
Q. And then there was a lot of testimony yesterday that you had on fill and spill?
A. Yes.
Q. Do you remember that?
A. I do.
Q. Was any fill and spill identified by Payne with

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regard to the MW Cattle Ranch or the Saddler Ranch?
A. He did not describe anything in his account of really any irrigation methods other than he did say there was some ditches and he did say there was some acreage irrigated. He didn't go any depth -- any more depth than that.
Q. How about for MW Cattle in the 1913 Romano map, any notation that would indicate there was fill and spill?
A. No description of how they applied the water other than they have ditches. No, that was it.
Q. How about in the Boyak map for MW Cattle?
A. The Boyak map actually illustrated impoundments on the fields. He actually showed water features on the fields in his -- in his map. So in that case, it supports fill and spill and -- as a method of applying water to -- for irrigation purposes.
Q. And how about for the Sadler, the Boyak map, any indication of fill and spill?
A. On the Sadler?
Q. Yes.
A. I'm sorry, what was your -- I thought your first question was did I see evidence by Boyak on the Sadler.
Q. Oh, I thought the first one was MW Cattle.
A. Oh no, I did not see any impoundments on water on the maps done by Boyak on Romano. We keep switching names

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here.
Q. That's my fault. I --
A. Yes. On the Sadler, that map, yes, showed impoundments that Boyak confirmed when he did his survey, yes. And I observed the same thing -- features that would have fortified Mr. Boyak's map.
Q. And the Boyak map for Sadler was done in 1980; is that correct?
A. Which map?
Q. The proof of appropriation that Mr. Boyak filed for the Lowdies, that was in 1980; is that correct?
A. I believe so. I'd have to look at the map, but that's in the time frame that I recall, yes.
Q. Any -- any evidence prior to that time of fill and spill?
A. 1946 aerial photo and the 19th circa photograph of the Sadler Ranch, they both definitely show that there was impoundments that allowed fill and spill to occur.
Q. So I saw a 1930 map from Sadler with ice yesterday; correct?
A. Well, ice or water, it could be both. But it definitely showed a feature of water in those fields.
Q. Right. But are you saying that map showed the fill and spill?

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A. It showed the impoundments. It wouldn't have shown the spill, but it would have definitely showed the fill. And the extents of how far they went out into the ranch, it did illustrate that, that it wasn't just something up close to the source, it extended to the extreme or to the outside perimeter of the ranch.

Q. So how tall are these berms that are part of the fill and spill?

A. In my field observations, they range from a few inches, say 8, 10 inches, to maybe 18 to 24 inches.

Q. And you saw those in the 1946 aerial photo?

A. I saw -- well, I could correlate what I saw when I surveyed, when I was out in the field was locations on the 1946 road, yes, I could correlate those locations and I could see water impoundments as well.

Q. And so from that aerial photo that you don't have any idea how high it was, you can see something that's 18 inches tall?

A. You don't get height from those kind of things, but in stereo, if you have the right proper high altitude aerial photography which is used by the USGS to develop maps, they do create contours and everything else. So the accuracy of contouring can be -- you can see relief. To get down to that level, no, you couldn't get down to that level.

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But what I did is I took that aerial photo and went out in the field and ground truthed it, and yes, I found those features there.

Q. Would you say the 1946 photo is a high resolution photo?

A. I'd have to see the reference to it. I'm not quite sure what it -- normally that's what they have and published was national high altitude resolution photos.

Q. In 1946?

A. Yes.

Q. Now I want to direct your attention to you had some testimony yesterday about the priority of the field; not the Romano ranches, the Romano field that's on the Sadler Ranch?

A. Thank you. Yes.

Q. Do you remember that testimony?

A. I do.

Q. And you were claiming the same date as Sadler for that Romano field; is that correct?

A. Yes.

Q. The same priority date?

A. Yes.

Q. And that was -- well, what evidence is there that Romano was using -- because in 1913, Romano owned that field and not Sadler; is that correct?

A. Yes.

Q. So what -- what evidence do you have that Romano using that field had a priority of using that field of 1863?

A. He -- he basically sued Sadler for not allowing the water to continue onto his field. The field existed. He just was not getting water to continue to support it. That's why he went to court is he said I'm not getting the water I'm due to irrigate my field that's been here. He wasn't creating the field.

Even in the testimony he said the field's here and actually gave acreage as to what he was irrigating. So that irrigation had to start well before 1913 for him to complain and say I've been getting this water, I'm not getting it any more, so what's the deal.

Q. Right. But the stipulation specifically said -- the 1913 stipulation -- that he had been getting the water for about 30 years; is that correct?

A. Yes.

Q. Okay. So 1913 minus 30 does not equal 1863?

MR. RIGDON: Objection, because I believe the testimony yesterday was that the stipulation said at least 30 years, not about 30 years.

MS. PETERSON: At least --

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THE COURT: Well, the stipulation speaks for itself.

MR. RIGDON: Okay.

THE COURT: It was.

MR. RIGDON: But her question is characterizing it in a certain way to make it a hard and fast date and that's not what the stipulation says.

MS. PETERSON: I'll rephrase.

THE COURT: Go ahead.

BY MS. PETERSON:

Q. The stipulation uses the figure 30 years; is that correct?

A. It uses 30 years, yes.

Q. And so the parties -- the parties use that figure for some reason; correct, you would agree?

A. We use about figures all the time, yes.

Q. Right. But 1913 minus 30 does not equal 1863; is that correct?

A. Well, if it was about 35, about 40, yeah, it would get back there.

Q. Well, I believe it's about 1880s. 1930 minus 30 years would be in the 1880s; isn't that correct?

A. If you do the math simply on just 30 and not consider that it could have been different than 30, yeah, you

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come up with 1880s. But again, it said about.
Q. Is that Romano -- and I couldn't quite understand from your testimony yesterday -- is the priority for that Romano field, is that claimed under the relation back doctrine?
A. No. I never stipulated it was.
Q. I just didn't understand. I was just trying to make sure I understood your testimony.
A. Okay.
Q. So Exhibit 155 in your book from your counsel, you testified about that yesterday on page 10?
A. 155?
Q. Exhibit 155, page 10?
A. Thank you. Okay.
Q. That's the ice photo from 1930?
A. No, it's a photo, but it's not the ice photo. I'm sorry, yes, it is. I'm sorry. I see the capsulation now. I was just looking at just the photo and not the (indiscernible), yes, it is.
Q. So was that -- I mean, if you know, it's a photo from 1930 and you weren't there in 1930; correct?
A. Correct.
Q. Do you know if there was any specific application of that water in 1930 so that we get this depiction, or was

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that just letting the water naturally flow?
A. I think the photo speaks for itself.
Q. And does it show natural flow?
A. What would you determine as natural flow, please?
Q. Well, I thought your testimony was that the water just ran in the winter?
A. It does. But I'm still needing clarification. Natural flow is flow. The application of that flow is a different question.
Q. Right. So what's the application of this flow?
A. Well, you can -- again the photo speaks for itself. It's braided -- it's moved not just in a single channel or in one or two channels, it's multiple channels spread throughout an area.
And then there's storage. You can tell features or icing features along the way. For them to ice up in the fashion that they did, they would have to have some form of -- they would have to still down, cool off, because this is a hundred plus degree temperature water, and then cool down and then sit still for a while in order to freeze or it would stay liquid, because it is again an elevated temperature to create this picture that we see here. It's -- that to me shows distribution.
Q. Do you know if there was any distribution of this

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water in 1930?
A. Yes, based on this photo, yes.
Q. Do you have personal knowledge of any distribution of this water in 1930?
A. No.
Q. And then directing your attention to page 16, this is your report that you put -- this is Exhibit 155 -- is your report that you put together for Sadler Ranch; is that correct? History of land and water use?
A. This was a collaborative effort, so yes, I was involved in this.
Q. You worked on it. And you testified about this yesterday; correct?
A. I did.
Q. And you testified yesterday about -- under the entry for Mr. Slegkowski from 1937 to 1940; do you remember that?
A. Yes.
Q. And you indicated under the fourth bullet down there under Mr. Slegkowski that there were two mowing machines and two buck rakes?
A. Yes, I see that.
Q. Okay. Was that pre-1905 technology?
A. No. I mean, it was not available in 1905 so

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these -- these mechanisms that you see here are definitely a mechanism that would have been later in time.
And even if that technology was available, to get it from the railroad, which would be your mechanism of travel for such a thing, which is to this location and then to pay for something like that and get it there, that's a whole different issue.
Q. Now, did you ever in your investigation that you conducted in the last 12 years, did you ever talk to Mr. Slegkowski?
A. I did not.
Q. Did you ever talk to Mr. Lowdie?
A. No.
Q. Did you ever talk to Mr. Dowd, Phillip Dowd?
A. Who is Mr. Dowd? I don't know him.
Q. He's in the chain of title.
A. No.
Q. Did you ever talk to Mr. Sokol, Donald Sokol?
A. Again I don't know where you're getting these names. Where are they coming from?
Q. They're from the chain of title for Shipley Ranch, Shipley Hot Springs?
A. No.
Q. I thought you were involved in the chain of title

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for this claim?
A. I was. I helped collect the documents, but I didn't sit down and speak with each person in the chain, no.
Q. Okay. So you spoke with none of these people in the chain, including Lindols who owned the Sadler Ranch before the present owners in 2011?
A. No, I did not speak with them.
Q. Did you -- did you -- you attended the hearing in front of the State Engineer in 2013 on the mitigation rights? Did you attend that hearing?
A. I have attended several hearings related to this matter, but I'm sorry, I don't know if that particular one.
Q. Okay. Do you -- do you ever recall being at a hearing in front of the State Engineer where Witts Bailey testified?
A. Yes, I do.
Q. Did you ever talk to Mr. Bailey?
A. Did not.
Q. And Mr. Bailey worked on the Sadler Ranch when he was young, I believe?
A. I believe that was his testimony. I remember some, maybe him or others, testifying being there when they were --
MR. RIGDON: Objection, Your Honor. Mr. Bailey

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has not been put on the witness list. Any testimony he gave at a State Engineering hearing back then would be hearsay and we would object to it.
MS. PETERSON: Well, sorry, I just asked if he talked to him. I didn't ask him -- and actually Mr. Bailey's testimony is in the record here because that hearing is in this part of the record.
My question was did you talk to Mr. Bailey, that was my question. There's no hearsay involved in that question.
THE WITNESS: I just -- I may have said hi but I didn't speak to him other than that, no.
BY MS. PETERSON:
Q. Okay. Any of his historical knowledge of work on the Sadler Ranch when he was young?
A. No. We did not discuss that.
THE COURT: Miss Peterson.
MS. PETERSON: Yes.
THE COURT: This is an appropriate time. Let's take a break. We've been going about an hour and 40 minutes or so.
MS. PETERSON: Okay.
THE COURT: So we'll take our morning break for about 10 or 15 minutes and then we'll resume with our

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evidence.
MS. PETERSON: Thank you.
THE COURT: The Court's in recess.
Recess.
THE COURT: We're in the continuation of our hearings. We have the presence of the parties, their counsel, the witness stand -- the witness is on the witness stand under oath, and, Miss Peterson, you can continue.
MS. PETERSON: Okay. Thank you, Your Honor.
BY MS. PETERSON:
Q. Mr. Buschelman, again, we're still on Exhibit 155; do you have that in front of you? Page 21?
A. 16 is I thought where we left off.
Q. Yes. I'm moving to page 21.
A. Okay. Thank you. I'm there.
Q. Okay. And you had some testimony on this yesterday with regard to this document that was sent to the Division of Water Resources in 1969; do you remember that?
A. Yes.
Q. And was that document intended to prove up beneficial use for a vested claim?
MR. RIGDON: Objection. Mr. Buschelman can't know what the document was intended to do.
THE COURT: I think it's the form of the

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question. The objection is sustained. Perhaps you could change the form of the question.
MS. PETERSON: Okay.
BY MS. PETERSON:
Q. So you had some testimony yesterday, Mr. Buschelman, about this document that's blown up on the bottom of the page here on page 21?
A. Yes.
Q. And what was your testimony yesterday with regard to this document?
A. I'm going back to the document and I'm just going to read what it's entitled. It says "water division Document 1969, Reinhold Sadler submits a deed for the ranch to the State Division, water division that he is about to transfer to Sadler Brothers Inc."
So this would tell me it was a legal description attached to a deed. This map includes or he indicates that about 2,000 acres of the ranch is irrigated. That's what I understand this document to be. Nothing more than that.
Q. Okay. That's the extent of your knowledge of this document?
A. Well, it's the document. What the document does when you compare it to other documents and other testimony -- or not testimony -- but other accounts of the ranch, it's a

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useful tool to help with getting a better picture of how this ranch operated.

There was some discussion of what land was irrigated, how much; this helps us go down that path. There's a number of things. Especially when this is stated in a deed, there's about 2,000 acres irrigated. And that is what this title is indicating to me because this came from that deed.

And we see this a lot when you're doing title research. You'll see in some deeds that they reference features of the place of use, especially in a ranching type of transfer of ownership they will try somehow describe some of the assets that the ranch provides. And so this is -- this is normal I would say when you're looking at documents and how you would trace those.

Q. Right. But it's not a culture map that's submitted in support of a proof of appropriation of a vested claim; is that correct?

A. No, no, it is not.

Q. And then directing your attention to Exhibit 25?

A. Okay.

Q. And this is the original -- the first few pages are the original proof that was filed for Shipley Hot Springs or Big Shipley Spring in 1980 by the Lowdies; is that correct?

A. Correct.

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Q. And then it's your understanding that there was a call for proof by the State -- proofs by the State Engineer in Diamond Valley around 1985?

A. I'm not sure of the date, but I know it was in the 80s.

Q. It was subsequent to the filing of this proof; is that correct?

A. Again, I don't know the exact dates.

Q. Would you agree that this proof had not been amended by the Lowdies or any successor water right holder or land holder until your amendment in 2016?

A. I found no other amendments until mine that I provided.

Q. And I believe you indicated yesterday in your testimony that you added -- for the Big Shipley Spring, the amendment, you added lands irrigated outside the private ground; correct?

A. Yes.

Q. And you also added the acreage for ponds that Boyak had shown on his cultural map; is that correct?

A. He showed them as ponds on the dates that he surveyed. We subsequently have seen where those ponds of course were spilled and that area that was inundated on one day actually turned into culture that was utilized on another day.

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Q. Okay. So the ponds that are on the Boyak map, it's your testimony that those are the 18-inch to -- I forget what the other range of your -- the berms that would be used for the fill and spill; is that correct?

A. Some of them, yes. There are -- there are a few structures that are much larger than that, but for the most part, other than those one or two structures that were larger and impounded much more water, these were actually just basically fields that these little 8 inches to 18 inches, 20 inches in height would then be held for a period of time to get them to fill, and then they would either overflow or spill onto the next pasture and then be allowed to continue growing a crop underneath those inundated areas. They weren't continually storing water is what (indiscernible).

Q. The ponds, the bigger ponds, you said there were a couple bigger ponds on the Boyak culture map?

A. Yeah. I would term them more almost reservoirs. They were bigger than what you would define as a pond in my mind. They were substantial sizes and they stored more water than just a few acre-feet.

Q. Okay. And you -- Boyak didn't include those because they were reservoirs, but you put them on your -- part of your culture map for your 2016 amended proof; is that

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correct?

A. No.

Q. Oh, I thought that was your testimony.

A. No. You have to listen to what I'm saying, please. I'm not trying to browbeat you. But there's two different types. One are these low fill and spills which are, you know, 8 inches, 10 inches, 12 inches in depth, but then what I'm speaking is also in addition to that there are larger reservoirs.

Two that I can remember in particular, that were reservoirs; they were not fill and spill. They -- well, I'm sorry, they practice fill and spill, but they didn't have a culture underneath that could still be grown into meadow or harvest.

They had -- the bottom of their reservoir was -- it was water. It didn't have a culture in the bottom. It would actually fill and retain the water either over to the next season, which would be carryover storage versus fill and spill.

It was not a -- it would have some characteristics of filling and then spilling, but it also carried over to the next year. So it's completely different -- different type of storage in that reservoir versus the smaller ones.

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And Boyak showed in his map some of these fill and spill features because on the dates that he was out there, there was water in those fill and spills, but there was also reservoirs that he showed that were storage reservoirs that had carryover.

I kept those as carryover storage reservoirs, not fill and spill. So hopefully that --

Q. Clarifies?

A. -- gives you a definition of how I approached it.

Q. Thank you. And then the third aspect that you included to amend the acreage on the amended proof was another parcel that was now owned by Sadler.

Do you remember that testimony?

A. Yes, I think I know the parcel you're speaking of, yes.

Q. Okay. And how big is that parcel?

A. 40 acres as I recall. It was illustrated a 40-acre subdivision. I'm not quite sure of the exact acreage but it was a quarter-quarter of a section.

Q. And that was owned by somebody else pre-1905?

A. I'd have to look at the chain of title. It was owned by someone else later, but I'm not sure who owned it in 1905. It could have been the same party at that time. The Sadler Ranch is -- you know, originally there were more than

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just one ranch owner. There was other -- other occupancies out there, not just one, and Sadler and his predecessor helped pull all those together into one ranch.

Q. But what specific information do you have with regard to this 40-acre parcel that there was pre-1905 beneficial use on it that would correlate to a 1863 priority as you're claiming for Sadler?

A. Are you saying that the beneficial use is the priority, is what the priority is based on?

Q. I -- I'm asking you what beneficial use there was of that parcel pre-1905 that associates it with a 1863 priority?

A. Well, that's two questions in my mind. Which question do you want me to answer, beneficial use or priority?

Q. Beneficial use.

A. Beneficial use could happen after a priority is established. So in that case, this 40-acre subdivision that was owned by someone else was completely surrounded by the Sadler Ranch ownership. It was an island, to speak, of a different ownership surrounded by someone else.

So it was surrounded by land that was irrigated both on all four sides or at least enough on all four sides that you couldn't dry this piece up and keep it dry and not irrigate it if you were going to irrigate everything around

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it.

So -- and the aerial photo that we had in 1946 shows that it was in the direct path of these flow lines and cultural lines and ditch lines, that you would have to build a berm completely around it to keep water off of it. It's going to recede.

And the priority is established based again as we've said in the past because it's on the date that the water is diverted, not when it's put to beneficial use.

Q. So you tied the Sadler priority date to this possessory claim that's Exhibit 57; is that correct?

A. I'd have to look to verify my recollection, but my duty is based on information that also is supported by the GLO plats, not just this document here. This document gives me a date, but the date that I finally finalized, as I said in my amendment, was based on the earliest date that I could find that I could see that there was occupancy there for diversion, and I believe that was the 1861 GLO plat which showed occupancy and use of that location.

And again, I'd have to look, but that's my recollection at this point.

Q. Okay. I thought your testimony yesterday was that this Exhibit 57 was the reason that you were claiming a 1863 priority date for the Sadler Ranch?

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A. This along with other documents, not just this document. There's other documents that support that date too. And I'd have to look and see how many of those contribute to that conclusion, but to say this is the only one, I can't tell you that right now. I'd have to look and see what other documents I took into consideration. I don't have that answer right now.

Q. Was this the only one your counsel asked you about yesterday?

A. No, no, he asked me about the GLO plats. He asked me about other documents. This was one of them, but not the sole document. Especially in determination of priority that was definitely not the only document.

Q. If we are just to look at this document Exhibit 57, does -- does it capture that 40-acre parcel that you added into the amendment in 2016?

A. I don't know that answer right now. I'd have to do a review to see if that correlates to that parcel. I don't know.

Again, you can see the volume of documents we went through to support this adjudication. I'd have to spend some time.

Q. And then directing your attention to Indian Camp Spring, you had some testimony about that yesterday; correct?

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A. Yes.
Q. And I believe that you testified that there was a GLO map that mentioned a cabin and that's the reason that you believe there was an earlier -- early priority date for Indian Camp Spring; is that your testimony?
A. Yes.
Q. Did you look at the notes for that GLO map?
A. Yes.
Q. And is there any mention of any garden or irrigation with regard to the cabin that you say is shown on the map?
A. No.
Q. Are there any tax records that show that there was any livestock or any grain that was taxed with regard to the Indian Camp Spring property?
A. Not that I recall.
Q. And I believe you testified yesterday that if there was water in this part of Nevada, Diamond Valley, that this would be used; is that correct?
A. I did, and also this is very, very close, I mean, it's within a very small distance from the Sadler Ranch which was extremely active in all of these aspects of irrigation, water use, priority determination.
So it wouldn't be that it's an isolated source

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out away from any other activity -- other human activity. This is adjacent to a ranch that we have documentation.
Q. Right. But again Payne -- Payne -- the State Engineer, indicated that Payne didn't see anything in 1912 with regard to Indian Camp Spring and didn't mention it in his notes.
Do you recall that from the Order of Determination?
A. I recall it from Payne's notes but not from the Order of Determination. Reading through his notes is what told me that.
Q. Okay. That Payne makes no mention of Indian Camp Spring in his notes?
A. Correct. He makes no mention of it.
Q. And are you familiar with deposition of Reinhold Sadler that's mentioned in the State Engineer's Order of Determination with regard to Indian Camp Spring?
A. The definition of Reinhold Sadler?
Q. I am sorry. Deposition, are you familiar with the deposition?
A. I'm familiar with it, but right now I'd have to look at it to basically -- well, look at it to understand.
Q. And are you aware or do you remember in the Order of Determination that the State Engineer said that one of the

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reasons he wasn't granting any water rights on Indian Camp Spring or a vested claim on Indian Camp Spring was because of the deposition testimony of Reinhold Sadler?
A. I'd have to look at that deposition, I'm sorry. Without looking at it I can't really say yes or no to that answer. Or that question.
Q. And then directing your attention to Exhibit 180, and that's the Order of Determination. And we're going to move to Eva Spring.
MR. RIGDON: I'm sorry, what page?
MS. PETERSON: Exhibit 180.
MR. RIGDON: 180. What page though?
MS. PETERSON: It's page 177.
MR. RIGDON: 177.
BY MS. PETERSON:
Q. Do you remember the testimony yesterday about Eva Springs?
A. I remember testifying about it, yes.
Q. And you had some questions from your counsel with regard to Eva Spring about 250 -- 215 acre-feet running to waste. Do you remember --
A. I know based on some calculations we came up with a number similar to that as an amount of water, but I'm -- I can't tell you exactly what we were speaking of at that time.

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Q. Right. But I think the general theme of the questioning was that the Browns made a claim for X amount and the State Engineer only allowed Y, Y, you know, a Y amount, and there were -- what I wrote down was that there were 250 acre-feet that went to waste and why would the Browns allow that. Do you remember that questioning?
A. Well, based on what I know about it, the Browns didn't allow anything. They made a claim of so many acres being irrigated. And the State came in with a determination of what they felt the flow was, and through their calculations came up with a figure, and based on that figure, that would say that there's a component of water that was not applied.
But again, the Browns didn't give up anything. The Browns said we're irrigating this much land. Whatever water we need, that's what we're using.
Q. Right. But have you contacted the Browns to get any information to support your contention that this determination made by the State Engineer was wrong?
A. I found nothing in the record to support that, and I don't even know if the Browns were alive when I was involved in this project. I have no idea.
Q. So you don't know today as we sit here today whether Mr. Brown, Mr. George Brown, is still alive or not?
A. I have no idea.

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Q. Did you attempt to find out?
A. No.
Q. And then directing your attention to Exhibit 24. That's the --
MR. RIGDON: Which Exhibit again?
MS. PETERSON: 24.
MR. RIGDON: 24.
BY MS. PETERSON:
Q. That's the proof that was filed by Mr. and Mrs. Brown for Eva Spring; would you agree? The first few pages?
A. Yes, I see those. And I see on the second page George W. Brown and Rita I. Brown as the claimants on this document.
Q. And then two pages past that, it's -- on the bottom it's Bates stamped it looks like Sadler 00383.
Do you see that page?
A. Which is the last page of the document? Of the proof of --
Q. Right. There are signature lines there by Mr. and Mrs. Brown. Do you see that?
A. Yes, I do.
Q. I assume they're Mr. and Mrs. Brown.
Anyways, under the note, the comment there for

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21, the question on 21, it's remarks?
A. I see that.
Q. Do you see that?
And Sadler's claiming priority date that's different than 1893 for this right; isn't that correct?
A. They state that they've interviewed people and the water has been in continuous use since 1893, but it doesn't necessarily indicate that it wasn't used before that.
Q. But Sadler is claiming a priority earlier -- under your amended claim, the current owners of Sadler are claiming a priority that's prior to 1893; isn't that correct?
A. Yes, perfectly allowed if you find more documentation to support that.
Q. Do you have any reason to believe that the Browns would not have put the earliest priority date possible that they felt that they could support in their proof?
A. I feel that they talked to a number of people and put that date down. But it says it doesn't preclude from finding additional information besides what they reported and definitely indicate an earlier priority.
That's -- that's why we're allowed to amend proofs is that we find additional documentation, additional supporting data, we can amend a proof on lots of -- all of these parameters on a proof of appropriation if we can

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document.
Q. And did you make your claim for the priority for Eva Spring based on the 1946 aerial?
A. No.
Q. What did you -- what did you base your priority date on?
A. I would have to look at my file or look at the supporting information for this to determine what I used, because at this point I can't recall exactly what I used. But I know I had other supporting data that I provided to the State Engineer's office that indicated to them a date.
And I'm -- I'd have to look at the final order. I don't know if they stipulated 1893 as the priority or the priority that I did, so I'd have to look at that order, that final order to see what they said. Because the State's reviewed all my documentation and whatever they said in the order, I don't know if it agrees with this 1893 or not.
Q. And kind of just getting into some general concepts here. Do you agree that, like, flow in a ditch or flow from a water source doesn't necessarily mean that that source or all the water in that ditch is all being beneficially used. Do you agree with that, that flow doesn't necessarily mean beneficial use?
A. It has no bearing on beneficial use. Flow is

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flow. No, I wouldn't say flow has anything to do with that beneficial use. It is a component, but it is not a definitive of beneficial use.
Q. And then do you -- I don't know if you know this or not, but at the Romano Ranch property --
A. This is the MW Cattle --
Q. MW Cattle.
A. Thank you.
Q. Thank you. Do you know if there's any current irrigation by groundwater wells?
A. My understanding there is.
THE COURT: Which property, Miss Peterson?
MS. PETERSON: The Romano Ranch's property, the MW Cattle.
THE COURT: Thank you.
BY MS. PETERSON:
Q. And I believe you testified that you haven't gone there since your amended proof of claim was filed or prior to your amended proof of claim?
A. Well, I haven't been actively investigating, but I definitely met John and been at his place. But beyond that, no, I haven't conducted any field investigations to the same magnitude I did in 2016.
Q. Okay.

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A. To support the 2016.
Q. So when you did your field investigation for MW Cattle, were they -- was MW Cattle irrigating with groundwater?
A. Well, the predecessor owner was, yes.
Q. Oh, okay. Sorry, yeah, I forgot about that.
A. Yeah, I understand.
Q. That would have been like General Moly?
A. Yes, that would have been it.
Q. All right. And so did you -- any -- did you in your investigation separate anything on the ground for this change in the manner -- the change in the type of irrigation groundwater, groundwater -- underground water irrigation versus surface water irrigation?
A. Again, I have -- I took nothing into account as it related to permitted rights post-1905.
I took -- except for my field investigation to try to figure out if there were ditches and evidence of ditches that supported that based on the photo. My focus was prior to 1905, that is what this is about. That's what I focused on.
So if that was irrigated with a center pivot system, flood irrigation system, wheel system, it had no bearing on what I was trying to accomplish as part of this

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process, this adjudication.
Q. So if there were any changes on the ground related to this underground water right irrigation, you didn't take those into account?
A. There's -- no. No.
Q. And then there was some testimony yesterday with regard to MW Cattle again where Payne -- Payne said that there were 40 acres and 35 acres. His notes show that there was 75 acres irrigated for that Romano Ranch MW Cattle property; correct?
Do you remember that?
A. I would have to look at it to make sure those numbers are accurate, but yeah, I remember him speaking to some acreage being irrigated.
Q. Okay. It was under a hundred; would you agree with that?
A. I'd have to look at his report before I could say.
Q. Do you want to look at his report?
A. Yes.
Q. It's EE?
A. Yes, please, I would. Would you refresh my memory on --
Q. It's EE?

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A. And which page, please?
Q. On the bottom it's Bates stamped VENT 05288.
A. Thank you.
Q. Do you see those acreages of irrigated land that Payne observed or wrote down in his notes?
A. I see those numbers, yes.
Q. Okay. One's 40 and one is 35?
A. Well, there's one that's 40 for -- it's for the Sulphur Ranch, and then there's 35 for I think what they would call home ranch or the home Romano. Okay, I see those numbers, yes.
Q. Okay. So that equals 75. And that's -- just to orient everybody, that's the MW Cattle property; correct?
A. That's correct.
Q. And you claim about I wrote down 1,496 acres for MW Cattle now?
A. Can you say that number again, please.
Q. 1,496?
A. Thank you.
Q. Does that sound about right?
A. Yes.
Q. And I know you testified yesterday that there -- or Payne had observed this in November so you thought that that may impact the quantities or the acreage that he noted in

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his report; is that correct?
A. Well, I testified that -- that Payne, it was at the time of year November, two, that he spent one day traveling 20 miles, maybe even more, because he says he left Eureka.
So it takes a bit of distance between the town of Eureka and that ranch to travel in one day. And then he looked at, I believe, oh, let's see, 1, 2, 3, 4, 5, 6, 7, different specific locations he calls out in that one day and then came up with numbers such as 40, 35 and others that in that day.
So I did some math and I come up with in order to travel at least the 20 miles from the first entry he had on a spring and this finding we're speaking of now to the other spring or the upper northern well spring, which is the Flynn I believe is the name of it, Flynn ranch -- Scott ranch, Flynn property, he only had about nine hours of daylight.
So he had to somehow get from Eureka to the furthest ranch on this in daylight, which is only about nine hours at that time of the year, and he had maybe, maybe an hour at each one of these locations, plus he had to travel between the two.
So for him to come up with these numbers, he wasn't doing any measurement, he was either guesstimating or

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getting, I don't -- it doesn't say that he even met with the people at these sources.

So that's why when I look at this report, I take it in context with other information that we have available to us. And this is only one piece of the pie, and I measured it against all the other information we have and it did not give me a definitive number of acres.

It said something was irrigated, but that's -- that's about it. It doesn't include the amount or the total. So that's why when we spoke yesterday about how much weight I gave this, I gave it weight.

I didn't discount it, but I weighed it against all the other information we have and made a judgment on which -- which was a bit stronger, which collaborated with others in order to come up with my numbers.

And the reason for the other -- I'm sorry, to continue, the 1,496 is also land outside of his fee title land. So this is inclusive of the land that I saw based on the information I received, and the 1946 aerial photos is one of our strongest evidences of what was irrigated; not who owned what but what was irrigated. So that's what I used as part of my determination process.

Q. So is it your testimony that -- I mean, that's a pretty big discrepancy, it's 1,400 acres, correct, between

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what Payne says is irrigated in 1912 and what you've claimed as pre-1905; correct?

A. Payne didn't have the 1946 photos. He had no photo to even get an idea of what it looked like. If he was wading on top of a horse through grass and brush, he's only going to see, you know, grasslands and brush lands. He's not going to be able to say 40 acres was irrigated sitting on top of a horse.

He may came up with that number as a guesstimate or heard that number from maybe the resident there, but we don't -- he doesn't say how he came up with that number. So that's the weight I give to this. It does tell me that some of it was irrigated, which is helpful, but it doesn't say how much.

Q. And again just so I understand your calculation for what was -- for what's claimed for MW Cattle, you took your 1,496 acres and multiplied that by the 4.5 duty?

A. That's correct.

Q. That's -- okay. And so that calculation is based on the needed duty; is that correct?

A. Please define needed duty.

Q. Well, that calculation is not based on a showing of actual beneficial use; would you agree with that?

A. That calculation is based on -- starting off in

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the calculation, it's based on what the plant needs, the exact plant. That's the net irrigation water requirement. That was the basis of my number that I started with. And I applied deficiencies to that number, 40 percent, 50 percent, 60 percent, to come up with a range of efficiencies based on the plant -- what the exact plant needs.

It -- those efficiencies were based on an irrigation method. There are many different methods that would deliver the water from the source to the plant. That's how I came up with that calculation. It does not equate to what I would actually see in the field because we don't have that ability today. Not at this location. There's no water today. Hasn't been for 40 years.

So it's a way to come up with a duty or at least a reasonable duty that we can today say, okay, that could work, where in realty it could be another number altogether. But we don't have that ability to determine that.

Q. Right. But we don't even know what the Romano spring complex, what the flow rate was; right?

A. Nobody does. But we have evidence based on the 1946 photo that would give us a clue in 1946. It could be more before that.

Q. But we don't know. We don't know what the flow was of the Romano springs?

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A. No. No, we don't. But we have evidence to get us that it existed, that it flowed, and that it provided enough water to develop the ranch and culture. We do know that.

Q. I'm switching gears now, okay.

A. Okay.

Q. Just changing subjects, sorry. I'm getting towards the end so that's a good thing for you.

When we were talking about the fill and spill, directing your attention to that area, did you account for runoff and return flow for calculating the downstream crop needs?

A. When you're saying runoff and return flow, is that the same water or is it different water?

Q. It's the same water. I thought your testimony yesterday was that there was this spill and fill method of irrigation where it would irrigate the, you know, the area, because you're saying it's not a pond, would be filled; right?

A. Right.

Q. This 18 to 20-inch area would be filled, and then that -- let's say it was a berm would be breached, right, and it would go ahead and spill over into the land and then the water would be continually used down field. I thought that was your testimony yesterday?

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A. Correct. It can cascade too. It can go from one spill and fill system through some fields, collected again in another fill and spill system, and breached and -- or overflow, breach, whatever, and then go down to the next system. So it could be repeated over and over and over again.
Q. Right. So did you account for any of that runoff or return flow when calculating your downstream crop needs?
A. I accounted it -- I don't mean to be evasive, but accounted for it in which way?
Q. So you're not double counting the water?
A. No. I didn't double count the water. The duty of 4.5 acre-feet per acre was at the source. Assuming that we've put 4. acre-feet per acre at the source analysis and allowed it to flow through the ranch, whether we use that duty over and over and over again, the consumption, at least based on the definition of duty that I provided, it would consume 4.5-acre-feet per acre by the time you got to the end of the system, whether you used it once or used it over and over and over and over again.
And again runoff and overflow, whatever, you're diverting water to a field and you collect that water again and put it on another field, that practice is repeated all over the state. It's not running off into a ditch system that would service somebody below or downstream.

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This is only one owner, it satisfies that one owner and is used by that one owner. It's not like it has to runoff or contribute to another water right below that or downstream. That's why when you say runoff and overflow it has some meaning as to what (indiscernible).
Q. Right. But in your calculation of duty of 4.5 acre-feet per acre, you have 4.5 acre-feet per acre for every single acre, say, it's 1,496 acres coming off -- coming off the source; is that correct?
A. Yes.
Q. And so the acre that's a mile away, let's say, I don't know if that's true for MW Cattle ranch because I'm using the 1,496 number, but the farthest parcel away from the source for the MW Cattle property, it still -- it gets 4.5 acre-feet per duty even though there's been runoff and return flow in the system before it gets to that last parcel; isn't that correct?
A. Well, again if you up look at the definition we gave of duty, there's multiple components. What you're accomplishing and what you're trying to accomplish is to get sufficient amount of water to that plant so it will grow.
And so it may take -- I mean, on the project as a whole, on average based on my calculations to see if that's a reasonable amount, if you apply it as a project as a whole,

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that number is a good number, just as we talked about in the Humboldt River Decree and the Palisade Canyons.
So the Humboldt River the Court said 3 acre-feet was a reasonable amount for harvest. And it didn't take into account whether you had a 2-inch ditch or a ten-mile ditch, it said that was a reasonable amount.
So in the same spirit of coming up with an agreed amount, I mean, 3 acre-feet was an agreed amount there, that was -- 4.5 was a reasonable amount to expect here.
If you wanted to go in and really try to pick each location in the Humboldt River system and each location on this ranch, you would have a list of duties that you would have to spell out.
Q. Right.
A. It would be impossible to manage.
Q. Right. But the Humboldt River Decree said the duty was determined at the head of the field; correct?
A. Head of the field, correct.
Q. So do you have Exhibit 570 in front of you? It was one of your exhibits, your --
A. Oh, one of the --
Q. It was one of the new exhibits introduced yesterday.
MR. RIGDON: He doesn't have a copy of it. Would

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you like me to hand him a copy?
MS. PETERSON: Yes. Do you mind? I can do it.
MR. RIGDON: Oh, okay. I don't know if the Court got a copy.
MS. PETERSON: Oh, okay.
MR. RIGDON: Here's another one. Here you go.
The new Exhibit number is?
MS. PETERSON: It's 570. It was introduced yesterday.
THE COURT: Thank you.
THE WITNESS: Thank you.
BY MS. PETERSON:
Q. Do you see that Exhibit 570, Mr. Buschelman?
A. I see the first page.
Q. Are you familiar with this document?
A. Familiar with what, I'm sorry?
Q. This document, Exhibit 570?
A. I'll need a moment to go over it.
Q. Sure.
A. I recognize some of the documents in here, but it's -- but I can't say that I recognize or have seen the whole document before so I'm not quite sure where we're going.
Q. All right. And of course these aren't Bates stamped. And I can't remember, I'm sorry, if I'm asking this

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again, did you help prepare put this -- prepare to put this document together?
A. I don't know.
Q. You don't know. Okay.
A. I may have or components of this possibly but I don't know what that answer is.
Q. Okay. All right. And then there was some testimony yesterday about Sulphur station and the Pony Express; do you remember that?
A. What was that again?
Q. There was some testimony about Sulphur station and the Pony Express; do you remember that?
A. I remember the discussion, yes.
Q. And the claiming of a 1861 priority date for MW Cattle based upon that Pony Express station; right?
A. Based upon a diversion, not just based on the Pony Express station. But the concept of priority is again established by when a diversion is made, not the presence of a Pony Express station.
Q. Is there anything in the GLO maps that indicates there was a diversion at that Pony Express station?
A. I don't believe the GLO maps even noted a Pony Express station at that location.
Q. Is it possible that horses could feed off native

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forage in the area of the Pony Express station?
A. It's possible. I would like to add though, if you look at the State Engineer's determination, they showed a thousand head of cattle and I forget how many horses and other animals with a 1861 priority under stock water and the State's accepted that.
So beyond that I don't know why we would be debating priority if the State Engineer in their final order has already accepted that.
Q. Right. But that was just for the stock water component; isn't that correct?
A. Well, with a thousand head of cattle and more, I can't remember the other category of animals, it would take more I would think than just native -- especially in the wintertime, you're going to have to support those cattle during the wintertime, that's going to require a harvest event or effort to keep those cattle alive when all that native and natural grass is dormant or under snow or ice or whatever.
So to me that means that if the State accepted it, that there shouldn't be a debate on the priority. And there's other collaborating evidence, the thousand cattle, other animals that would also collaborate an event that would constitute a diversion. So I -- they haven't -- they haven't contested that so I'm confused as to why we're doing it now.

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Q. I'm just asking if the horses in that area and the cattle and the livestock in that area could have grazed on natural forage. That's what I'm asking.
A. The answer --
Q. And you said yes?
A. Yes, they could. They could.
MS. PETERSON: I think that's all I have. Thank you, Your Honor.
THE COURT: Redirect, Mr. Rigdon.
MR. RIGDON: Yes. Thank you, Your Honor.
Mr. Buschelman, there's been a lot of talk in your cross-examination about Mr. Payne, and we didn't get a chance to talk about that in our direct so I want to talk about that right now.
But I was going to use another witness to do it, so I'm going to hand out some witness binders that are going to be used for Mr. Smith, but they have in exhibits that I now need to ask Mr. Buschelman about, if that's okay.
THE COURT: Go ahead.
REDIRECT EXAMINATION
BY MR. RIGDON:
Q. Do you remember, Mr. Buschelman, when Miss Peterson asked you whether Mr. Payne was an employee of the State Engineer's office?

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A. Yes, I remember that conversation.
Q. Okay. So in this -- this binder I just gave you, could you turn to if Exhibit 171, please.
A. (Complies.)
Q. What does this cover sheet identify 171 as being?
A. The title of this is the biennial report of the State Engineer, dated 1913/1914.
Q. Okay. And if you'll turn to the page, the very next page?
A. (Complies.)
Q. Does this list all the employees of the State Engineer's office in 1913 and 1914?
A. Yes.
Q. And does it give their titles?
A. Yes.
Q. Okay. And what does it give as the title for Mr. Payne?
A. It says Harvey M. Payne, assistant field engineer.
Q. So there's a State Engineer, an assistant State Engineer, five field engineers, and then one assistant field engineer?
A. Yes.
Q. And Mr. Payne is the low man on the totem pole.

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He's just an assistant at this point?
A. He's the only assistant on this list.
Q. Okay. Can you turn to the next page -- excuse me, the last page in the binder in that Exhibit. And that should be page 29 of that report; is that correct?
A. Correct.
Q. Okay. Can you read to me the second and third full paragraph there?
A. The second paragraph starts off as Mr. Z. C. Smith --
Q. No, no, the second full paragraph where it starts "in the tabulation"?
A. Oh thank you. In the tabulation on page 00 will be found the list of surveyors made -- I'm sorry, list of surveys made and checked by this office.
Q. And the next paragraph?
A. When it is considered that each property listed must be surveyed, the legal subdivisions of land properly noted, the ditches traversed, the cross-sections and grades taken, then platted, the areas figured in each character or crop and segregated so as to assign definite areas to each ditch, the magnitude of the work can be realized.
Q. Does this describe what the standards were for the State Engineer's office in 1913 for conducting surveys on

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property?
MS. PETERSON: I object, Your Honor. That's misleading as to what the State's -- the document can speak for itself. And we don't even have the complete document so I have no idea -- it jumps from --
MR. RIGDON: The complete document is in the file. We just excerpted it for the witness binder. If you'd like to see the complete document in the file we can certainly pull that out.
MS. PETERSON: Okay.
THE COURT: With reference to the objection, the objection is overruled.
MR. RIGDON: Okay.
BY MR. RIGDON:
Q. So can you answer the question, Mr. Buschelman. Does that, in fact, describe the standards for conducting a survey -- the standards the State Engineer's office had in 1913 for conducting a survey?
A. That's what it appears to be, yes.
Q. Okay. And so you indicated in one of your responses to Miss Peterson that Payne started at Sulphur Springs, traveled three miles to Romano, traveled three more miles to Bailey, traveled two and a half miles to Sadler, traveled four miles to Siri, traveled seven miles to Flynn

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Scott ranch, 19 and a half miles all in one day on a short winter day; correct?
A. Correct.
Q. And in that time, would he have had any time to do a proper survey like what's described in this biennial report?
A. Well, what he reported to do in one day, I could only visit and compile information on two ranches in approximately 12 days, and have supporting evidence of aerial photographs and a lot more tools and information before I went into the field to make any kind of field investigation that would meet that standard.
So I don't believe he had time.
Q. And is there anything indication in Payne's note that he did any of the stuff which was required to do a proper survey by the State Engineer's office?
A. I could find nothing in his notes to say such an effort was made.
Q. Okay. So what we have is an assistant field engineer just going out looking at things and writing notes?
A. That's my impression, yes.
Q. We have no idea why he was doing it, if it was just the State Engineer telling him hey, you're the green guy, go out and get familiar with things?

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A. That could very well be the scenario, yes.
Q. Okay. If you can turn back to your Exhibit binder, the one I gave you. And if you could turn to Exhibit 180, which is the State Engineer's Order of Determination, if you could turn to page 146 of that.
You were just having a conversation with Miss Peterson about the animals that the State Engineer recognized as -- in the priority date, the State Engineer recognized on the Romano Ranch; is that correct?
A. That's correct.
Q. Okay. And this -- this is the start of the discussion of proof VO4479; is that correct?
A. Yes, it is.
Q. And that was one of the proofs for Romano spring?
A. Yes, it is.
Q. Okay. And if you turn to page 148 where it's the end of that proof?
A. Yes.
Q. And does that indicate a number of livestock that were part of that proof?
A. Yes, it does.
Q. And what does that indicate?
A. Can I read the last (indiscernible).
Q. Sure.

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A. The State Engineer also finds a basis for a year-round use of water for domestic purposes and for the needs of 1,000 cattle and 30 horses and 1,000 sheep, the total number of animals on this ranch watering at all sources when it is available and with a priority date of 1861.

Q. Okay. In your opinion, is there enough natural forage on the Romano Ranch to support 1,000 cattle, 30 horses, and 1,000 sheep?

MS. PETERSON: Objection, Your Honor, based on the time frame -- no time frame.

MR. RIGDON: There is no -- I -- the State Engineer has determined that there with that many there prior to 1905, and so that's what I'm asking him. You -- you asked him questions on whether there was natural forage.

We're showing the total amount of animals that were out there and I'm asking him whether that number of animals could naturally forage out there.

MS. PETERSON: Right. But there was no time frame in the question, Your Honor, about whether he was talking about currently -- the question was currently is there that amount of forage out there or was it pre-1905, that's what I'm objecting to.

THE COURT: Mr. Rigdon.

MR. RIGDON: Pre-1905, Mr. Buschelman, which is

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what the State Engineer found, pre-1905 there was a thousand cattle, 30 horses, and a thousand sheep out there on the Romano Ranch.

In your opinion, is it possible that there's enough natural forage on the Romano Ranch to support those large of herds.

THE WITNESS: No. You would have to have something else in order to feed that size of an animal -- a collection of animals for -- in that one ranch. You would have to have some other source of food and water to do that.

BY MR. RIGDON:

Q. Okay.

A. You couldn't just support it on natural vegetation.

Q. Okay. Now, let's turn to page 177 in that same document.

A. (Complies.)

Q. You remember Miss Peterson was asking you about the priority date for the Brown Ranch?

A. Yes.

Q. And, in fact, if you go to page 178 which is the conclusion on that proof, in fact, what is the priority date that the State Engineer recognize?

A. May I read that paragraph?

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Q. Sure.

A. Based on the historical data available and field investigations, the State Engineer finds a basis for a vested right to divert 0.67 CFS of water from January 1st to December 31st of each year from Eva Springs to irrigate 85.4 acres of harvest and 18.3 acres of diversified pasture for a total duty of 269.93 acre-feet per acre -- or I'm sorry, acre-feet per annum with a priority date of 1871.

Q. So the State Engineer has already determined that the priority date is 1817; correct?

A. Correct.

Q. Not the 1893 that Miss Peterson was talking to you about?

A. Correct.

Q. And the State Engineer has looked at all the evidence including that stipulation to determine that that was the date that the doctrine of relation back applies at the priority date of that water right?

A. Correct.

Q. Okay. I want to clarify something, because you were talking to Miss Peterson about the NIWR report and that report in -- that she had as the Exhibit, that investigation that they did on NIWR members; do you remember that?

A. NIWR is net irrigation water requirement?

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Q. Net irrigation water requirement, yes.

A. Yes, I recall it.

Q. Okay. Remember she asked you if in studying the net irrigation water requirement if they took into account different types of irrigation methods?

A. I remember that.

Q. Okay. If the idea is to find out what the crop -- what the plant needs, why would different types of irrigation even factor into the equation?

A. It wouldn't. That report identified the need of a plant. It didn't speak to how you can get the water to that plant, it's just the plant needs this much water to grow.

Q. Okay. So they wouldn't even need to talk about whether it was flood irrigation or center pivot irrigation or wheel irrigation at all, that's the method to get the water to the plant; all they were looking at is what the plant needs?

A. My review of that report doesn't go into any of that discussion, only what the plant needs.

Q. Okay. And Miss Peterson asked you a lot about what types of evidence you had that water was being placed to beneficial use on the Romano Ranch as early as 1861; do you remember those questions?

A. I do.

Q. Can you clarify for me here what -- how does

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beneficial use relate to priority dates?
A. It does not.
Q. What is the basis for determining a priority date?
A. Point of diversion of that water.
Q. So you divert -- just the diversion of the water. You don't have to have the full fields irrigated and culture shown on the date that the priority is set?
A. No, you do not.
Q. Okay.
MR. RIGDON: That's all I have on redirect.
THE COURT: Recross on that.
MS. PETERSON: Thank you, Your Honor.
RECROSS-EXAMINATION
BY MS. PETERSON:
Q. Mr. Buschelman, turning to Exhibit 180. Sorry, the Eve Brown -- or Eva Springs, the Brown proof, I know the Order of Determination indicated that the priority was 1871?
A. Can you point me to the page.
Q. Oh, yeah, I'm sorry. It's page 178.
A. Okay, I'm there.
Q. I thought that Sadler Ranch was claiming a priority prior to 1871 for the Eva Spring; do you know?
A. I would have to look at the proof, but in

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general, yes, I believe we were earlier than the State identified here.
Q. Okay.
A. In the final order.
Q. And then directing your attention to Exhibit 171. That's in the new binder we just had.
A. The Dwight Smith binder?
Q. 171, yes.
A. I'm there.
Q. And this is the biennium report for 1913 to 1914?
A. Yes.
Q. For the State Engineer. And Mr. Payne's visit to Diamond Valley was in 1912; is that correct?
A. I'd have to look, but I believe that's (indiscernible).
Q. Okay. So 1912 is not part of the 1913/1914 biennium; correct?
A. I'm not sure how they compile these reports, so I don't know if it would be or wouldn't be in this kind of a publication.
Q. And then on the next page your counsel pointed out that Mr. Payne is an assistant field engineer; correct?
A. That's what it says, yes.
Q. Do you know any of the background educational or

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work experience of Mr. Payne?
A. No, I don't.
Q. And then directing your attention to the next two pages, you were asked some questions under the heading "Field Operations"?
A. I see that.
Q. And if you read the first full paragraph discussing the surveys that were made, the field operations in that biennium?
A. The first sentence of the paragraph says "probably the most important branch of our field operation consists of making surveys of irrigated areas, irrigating ditches, stream flow, and irrigable lands."
Q. And then the next -- the next paragraph indicates that they try to make those surveys, I guess, within 1 percent error but that's not always possible?
A. I see that sentence, and --
Q. Okay. And then directing your attention to the next page, the first full paragraph that starts with the Messrs. C. C. Smith, Fred Stewart, do you see that paragraph?
A. I do.
Q. Mr. Payne is listed in there also; right?
A. He is.
Q. And that paragraph indicates that for this

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biennium, that those field engineers or assistant, whatever their title was, assistant field engineers were making surveys in the Humboldt River system; is that correct?
A. Yes.
Q. I don't see anything in this paragraph or under this section having to do with Diamond Valley, do you?
A. In that particular paragraph?
Q. In this particular section under field -- field operations?
A. I need a minute to read it. I see no reference to Diamond Valley.
Q. Right.
A. In that section.
Q. And do you know what the purpose of these biennial reports was?
A. Not exactly, no.
MS. PETERSON: That's all I have.
THE COURT: Witness can step down. This is a good time to take our noon break. We're about 12:20. Why don't we go ahead and we'll take our recess until -- let's go to 1:30. That's about an hour and ten minutes, and then we'll continue on.
MR. BOLOTIN: Excuse me, Your Honor.
THE COURT: Yes. Mr. Bolotin.

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MR. BOLOTIN: (Indiscernible) just say that (indiscernible) Crumb and Dan Taylor once again joined the hearing at some point. I didn't want to interrupt the testimony, but they're on right now.

THE COURT: Thank you, Mr. Bolotin. And their appearance is noted for the record.

MR. BOLOTIN: Thank you.

THE COURT: And we'll take about an hour and ten-minute break and we'll continue on with testimony at 1:30.

(Lunch recess.)

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EUREKA, NEVADA, THURSDAY, SEPTEMBER 30, 2021, P.M. SESSION

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THE COURT: Let the record reflect we're in the continuation of our case and we have the presence of the parties and their counsel. At this time you can go ahead and call your next witness.

MR. RIGDON: Thank you, Your Honor. We will call Mr. Dwight Smith.

THE COURT: Okay. Please come forward, sir. I'll have you raise your right hand. The clerk will administer you an oath.

DWIGHT SMITH,
called as a witness in this matter,
having been first duly sworn,
testified as follows:

THE COURT: Please take the witness chair to my left. Okay, Mr. Rigdon, proceed with direct.

MR. RIGDON: Thank you.

DIRECT EXAMINATION

BY MR. RIGDON:

Q. Good afternoon, Mr. Smith.

A. Good afternoon.

Q. Could you just please for the record state and spell your name.

A. Dwight Smith. D-W-I-G-H-T. S-M-I-T-H.

Q. And what's your profession, Mr. Smith?

A. I'm a hydrogeologist.

Q. Okay. And what does a hydrogeologist do?

A. I work in just about all different types of water resource management, water resource evaluations and studies.

Q. Okay. And can you describe the education and training you have for that.

A. Yes. My bachelor's degree is in geological engineering. My master's degree is in hydrogeology from UNR.

Q. And if you will turn to the Exhibit binder I have in front of you there. If you turn to page 18 -- excuse me Exhibit 183.

A. (Complies.)

Q. Do you recognize that?

A. I do.

Q. And what is that?

A. This is my professional resume. I will note that this is a couple years dated because it says Interflow Hydrology. I'm the former owner of Interflow Hydrology. I'm now with McGinley & Associates.

Q. All right. But does this adequately describe your experience and education?

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A. Yes, it does.

Q. And can you turn to Exhibit 184.

THE COURT: Excuse me. Mr. Smith, I'm going to have you turn your seat just a little bit towards -- perfect. Okay. Great, thank you.

BY MR. RIGDON:

Q. Okay. So let's turn to Exhibit 184. It's the next one in the binder.

A. (Complies.)

Q. And do you recognize this Exhibit?

A. I do.

Q. And what is this?

A. This is a report that I prepared for a water right hearing in the year 2013.

Q. Okay. And did that hearing involve Sadler Ranch?

A. It did.

Q. And then if you could turn to 185.

A. (Complies.)

Q. And do you recognize this Exhibit?

A. Yes, I do.

Q. And what is this one?

A. So this is a report that I prepared in 2019 for the hearing before the State Engineer for this adjudication process.

Q. Okay. So that was for this case, this was the report you did?
A. That's correct.
Q. Okay. And did it use information from the previous report from 2013?
A. It did.
Q. Okay. And you relied on -- you relied on that information from that previous report in 2013; correct?
A. That is correct.
Q. Okay. So let's turn to 186 now.
A. (Complies.)
Q. And you recognize what 186 is?
A. Yes. This is another report that I prepared in February of 2020, and it's supplemental information related to this adjudication proceeding for the Sadler Ranch.
Q. Okay. And is there a cover letter with that?
A. Yes.
Q. Okay. And does that -- does that cover letter state that your CV, prior reports, and the transcripts of your prior testimony are the basis of your opinions?
A. That's correct.
Q. Okay. And they're the basis of what you'll be testifying here about today?
A. Yes.

MR. RIGDON: So, Your Honor, I'd like to move Exhibits 183 through 186 into the record.
THE COURT: Counsel?
MS. PETERSON: No objection, Your Honor.
THE COURT: Exhibits 183, 4, 5 and 6 are admitted without objection.
(Exhibit 183 admitted into evidence.)
(Exhibit 184 admitted into evidence.)
(Exhibit 185 admitted into evidence.)
MR. RIGDON: Okay. Great.
BY MR. RIGDON:
Q. So in your position as a hydrogeologist do you regularly go out and investigate historic springs and try to determine spring flows and things like that?
A. In my profession, I'm regularly routinely assessing springs as a -- for a whole variety of different purposes and reasons. A lot of times it has to do with determining yields and variability, looking at potential impacts, sometimes for water rights, sometimes for -- all different types of purposes that you could use a spring.
Q. And so you have a pretty good understanding of springs, how they're formed, what type of flow rates they might have, those types of things?
A. I do.

Q. And in your investigations, do you also use other records and notes, historic records and notes that you find to make determinations with regards to those springs?
A. Yes.
Q. Okay. Have you ever testified as expert before the State Engineer's proceedings?
A. I have.
Q. Including in this one?
A. That's correct.
Q. But have there been other ones?
A. I've testified as a qualified expert on 17 occasions before the Nevada State Engineer. I've also testified in civil proceedings, one of which was related to the State Engineer.
Q. Okay. And have you ever then testified in court as well about similar types of issues?
A. I have.
Q. About how many times?
A. Just a few times. I've testified in California courts twice and in the Nevada courts twice also.
MR. RIGDON: So at this time, Your Honor, if there's no objection, I'd offer Mr. Smith as an expert in hydrogeology and spring flow measurements.
THE COURT: Miss Peterson.

MS. PETERSON: Your Honor, could I just -- a couple questions.
THE COURT: Yes, you may.
MS. PETERSON: Okay. Thank you.
VOIR DIRE EXAMINATION
BY MS. PETERSON:
Q. Mr. Smith, I know you said that you testified a few times in court. Were those in a professional capacity as opposed to a personal capacity?
A. They were as a qualified expert in hydrology and hydrogeology.
MS. PETERSON: Okay. No objection to what -- being qualified or testifying as an expert in hydrogeology?
MR. RIGDON: Hydrogeology and related spring flow measurements.
MS. PETERSON: Is that an expertise?
MR. RIGDON: He said that he does -- he does determine spring flows and that type of thing in his work as a hydrogeologist.
MS. PETERSON: Right, but isn't that covered under a hydrogeologist.
MR. RIGDON: I would think so. I just wanted to be specific so that there was no objections later on.
MS. PETERSON: Oh, no, we would agree that that

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is covered under a hydrogeologist.
MR. RIGDON: Okay. Then we're good.
THE COURT: Then the witness will be admitted under Nevada case law, there's a statute to provide his professional opinion in those areas.
MR. RIGDON: Great. Thank you, Your Honor.
BY MR. RIGDON:
Q. So Mr. Smith, have you reviewed the evidence submitted by Sadler Ranch in this case in general?
A. I've reviewed selected pieces of evidence that I thought were pertinent to what I was trying to understand and issue an opinion on.
Q. Okay. And have you also reviewed the final Order of Determination issued by the State Engineer?
A. I have.
Q. Okay. And you drafted those expert reports we just talked about?
A. I did.
Q. Okay. So let's start with the big one, Big Shipley Springs. So can you give us kind of a general overview, location and description of the Big Shipley Springs?
A. Yes. Big Shipley Spring hot spring is on the west edge of the valley, about in the central part of the valley to the west of the playa and to the east of the Sulphur

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Ranch Spring ranch. It occurs along the toe of the alluvial fan or near the toe and it is one of a series of springs that historically has existed along the western edge of the playa and the alluvial fan.
Q. Is it a warm spring?
A. It is warm. It naturally produces water with temperatures of about 106 degrees Fahrenheit.
Q. And is it relative to the other springs in Diamond Valley a large spring?
A. It is -- it was the largest discharging spring in Diamond Valley.
Q. Okay. I'm going to have you turn to Exhibit 180 in your Exhibit binder.
A. (Complies.)
Q. And this is excerpts from the Order of Determination that you said you reviewed earlier; is that correct?
A. That's correct.
Q. All right. So let's turn to page 179.
A. (Complies.)
MS. PETERSON: 171?
MR. RIGDON: 179.
BY MR. RIGDON:
Q. And is this a discussion of the proof that was

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filed for the Big Shipley Springs?
A. Yes.
Q. And it starts on 179 and continues to 181; is that correct?
A. Continues to page 183, I believe.
Q. Well, is 181 --
A. Yes, my correction. 181.
Q. 181. Okay. All right.
And in this section of the Order of Determination does the State Engineer arrive at any determination with respect to the pre-1905 flow rate to the Big Shipley Spring?
A. Yes.
Q. And what does -- does he say it was?
A. I am going to make sure I get the exact number here for the record. If I may, can I read the sentence?
Q. Sure.
A. So in the last paragraph pertaining to the vested claim, the 03289, it's concluded based on the exhibits presented in the hearing objections, data obtained from the public domain, and information contained within the files of the State Engineer's office, the State Engineer finds the basis of claim V03289 to divert 7.02 CFS of water from Shipley Springs to irrigate 1,064.43 acres of harvest, 336.7 acres of meadow for a total duty of 3,927.61 acre-feet per season with

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a priority date of 1873.
Q. Okay. So the State Engineer found a historic spring flow rate of 7.02 CFS?
A. That's correct.
Q. Okay. And in the discussion prior to that conclusion, does the State Engineer identify how he arrived at that number?
A. Yes.
Q. And could you tell us what that is?
A. Yes. Just in a simple summary, the State Engineer and staff utilized three measurements made by a U.S. geological survey scientist, Jim Harrill. These measurements were made in 1965 and 1966.
My recollection is the State Engineer averaged those three and then added in a small amount of .22 CFS for potential effects, as they interpreted them, that may have diminished the flow by the time Harrill had made measurements.
So summing those numbers together, 6.8 CFS as an average of those three measurements plus 0.2 CFS as a potential effect at the time Harrill made those measurements.
Q. Okay. So he relied on the Harrill measurement to make his determination. Did he mention in this Order of Determination other measurements, other estimates of spring flow?

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A. There is very little reference to other observations, reports or data that were produced in the -- in the hearing. So there's very little reference to any other data or information.
Q. Okay. Turn to page 179, that first page.
A. (Complies.)
Q. In that last paragraph on that first page, does he make reference to Mr. Payne?
A. Yes, he does.
Q. And what does he say about Mr. Payne here?
A. In the last paragraph of page 179, the area was visited by H. M. Payne on November 18th, 1912, but he was unable to make an accurate measurement of Big Shipley Spring as there was a break in the dam. He estimated the flow at approximately 8 CFS.
Q. Okay.
A. That's --
Q. So the word that the State Engineer uses in the order is he estimated the flow at approximately 8 CFS; is that correct?
A. That's correct.
Q. What -- what do you take to mean by approximately?
A. As a scientist, approximately means there's an

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error bar plus or minus on that particular reported data or piece of information.
Q. So when it says approximately in a report like this, it would be reasonable to take them to mean more or less; is that correct?
A. That's correct.
Q. Okay. So let's turn to -- do you have that other big binder -- well, actually we'll use your binder.
Let's turn to Exhibit 50 in your binder.
A. (Complies.)
Q. Are these the notes from Payne that are relevant to the -- his visit to the springs on the west side -- out in the west side of Vendor (phonetic) valley?
A. Yes, this is the two pages of notes, field notes made by H. M. Payne on November 18th, 1912.
Q. Okay. And does he start talking about the Big Shipley Spring at the bottom of that page?
A. That's correct.
Q. Okay.
THE COURT: Counsel, what Exhibit are you referring to?
MR. RIGDON: Oh, Exhibit 50. It's right -- the very first one.
THE COURT: Oh, the very first one.

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MR. RIGDON: Yes.
THE COURT: Oh, I have it, thank you. Go ahead.
MR. RIGDON: Thank you.
BY MR. RIGDON:
Q. On the second page, does he state what his estimate is about the flow of the spring?
A. Yes, he does, in his field notes. "By an estimate I should place the flow of this spring at about 8 second feet or a little more."
Q. Okay. So he says 8 second feet or more; right?
A. Or a little more, correct.
Q. He doesn't say 8 second feet more or less?
A. Correct.
Q. So it's 8 second feet or it could be more but not less?
A. What -- the way that this is written, this field note, he has placed an assessment of his error to be that it could be a little low.
Q. Okay. So when we -- when the State Engineer represented it as an approximately 8 CFS, and you said that that meant it could be more or less, was that a reliable or accurate determination -- accurate representation of what Payne actually said?
A. It's not accurate with the actual statement in

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Mr. Payne's field notes.
Q. Okay. Let's go back to Exhibit 180 on page 179.
A. (Complies.)
Q. So other than Harrill and Payne, does the State Engineer mention any other spring flow measurements, estimates, or anything else in there about spring flows?
A. I'm not seeing that he has.
Q. Okay. And I was going to ask you about Mr. Payne and who he was. I believe you heard Mr. Buschelman's testimony; I think you were in the courtroom.
Do you agree with Mr. Buschelman that the evidence seems to be that Mr. Payne was just an assistant field engineer?
A. The evidence we have is that was his title as of 1913 and 1914, one year after he made this inspection.
Q. Is it likely that he would have been -- had a -- had a more senior title before that report?
A. It's not likely.
Q. Okay. So we can deduce from that report that he probably had a title similar to assistant State Engineer -- I mean assistant field engineer?
A. That seems reasonable.
Q. Okay. In your experience in looking at springs and spring flows, does the level of experience a person has

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affect their ability to estimate spring flows?
A. Very much so.
Q. How?
A. So I'm going to turn the clock back to when I was a young hydrogeologist learning (indiscernible) spring flow and engaging measurement, like, the methods, curiously enough, are the same today pretty much as they were a hundred years ago.
So we do it with a current velocity meter. We do transects across the stream channel. How I was taught, which was by some of my mentors which were former U.S. geological surveyors and hydrologists, is that you first -- when you walk up to the stream you make a visual estimate, and the reason you're doing this is because you're trying to train your eye to make accurate visual estimates.
So this is pretty common, because we do have -- you know, it's fairly frequent we have conditions in the field where we can't make an accurate measurement, but it is common that we still report a visual estimate as Payne did.
So one thing you do find is if you're routinely doing this over time, you will I'll say calibrate your eye to where you can do a pretty good job estimating the flows.
There's always an error bar and it's always greater than if you were to actually take a measurement.

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Actual measurements have error bars, by the way, also. But as time goes on, if you're doing that routinely, consistently enough in the field, you will develop a pretty -- a pretty keen eye to be able to make reasonably accurate estimates visually.
Q. Okay. So would you say that the margin of error for an estimate is larger with the less experience an engineer has and it's -- the margin of error is less with the greater experience that they have?
A. That's what you would expect.
Q. Okay. So in preparing your -- your reports and your investigations, as we said, the State Engineer only identified two. Did you identify other data points, find other records about spring flows and spring flow measurements?
A. Yes, we did.
Q. Okay. And if you'll turn to, yeah, Exhibit I believe it's 185.
A. (Complies.)
Q. And page 11 of that Exhibit. And this is your expert report; right?
A. That's correct.
Q. Is there a graph on page 11?
A. There is a plot, that's correct.
Q. Okay. A plot. And what does this graph plot?

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A. The title of the plot is Figure 1, Big Shipley Spring discharge measurements and reported discharge, 1912 to 2013.
Q. Okay. So this is all the different measurements you found between 19 -- is it 1910 and 2010?
A. I'm sorry. 1912.
Q. Oh, 1912. So --
MS. PETERSON: I'm going to object to that, Your Honor, just because it's not only measurements, it's reported discharge is the title.
MR. RIGDON: Thank you. I'll clarify that.
BY MR. RIGDON:
Q. So this is all reported discharges and measurements of flow?
A. That's correct.
Q. Okay. Now, in doing your research, did you find that there's a point in time at which -- well, no, let me scratch that. Strike that from the record.
So the State Engineer relied on Mr. Harrill; correct?
A. That's correct.
Q. And are Mr. Harrill's measurements shown on here?
A. They are.
Q. And would that be the three red boxes between

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1960 and 1970?
A. That's correct. And with the date being on the bottom Y axis and the discharge in cubic feet per second, CFS, being on the Y axis, they plot between 6 to approximately 7.2 CFS.
Q. Okay. And did these come from a report that Mr. Harrill produced?
A. That's correct.
Q. Okay. Can you turn to Exhibit 449.
THE COURT: Could you (indiscernible) again, Mr. Smith.
MR. RIGDON: I'm sorry.
THE COURT: Discussed.
THE WITNESS: Oh. The actual values.
THE COURT: Yes, you can go ahead and repeat your testimony.
THE WITNESS: Yes, for clarity I'm going to get the exact values for the discharge measurements.
THE COURT: Very well.
MR. RIGDON: Yeah, we're about to look at that, Your Honor, the exact values.
BY MR. RIGDON:
Q. Okay. So Exhibit 449. I'll represent that the full Exhibit is in the -- in the -- in the full set of

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exhibits here and that this is just excerpts of that full Exhibit for the witness binder to keep the page count down. But is this excerpts from that report by Mr. Harrill?

A. Yes.

Q. Do you know who Mr. Harrill was?

A. Yes. Jim Harrill was a well regarded hydrogeologist that worked for the US Geological Survey. He authored a lot of the recognizance reports which were basin-scale water resource studies in the 1960s and into the '70s.

Q. So he was a pretty well-respected professional?

A. Very much so.

Q. And we have no reason to doubt anything Mr. Harrill would say; right?

A. Oh, absolutely not.

Q. Okay. So what was the purpose for Mr. Harrill doing this report?

A. This was actually a follow-up study published in 1968, a follow up to the original recognizance-level water resource report authored by Tom Eakin in 1962. So this follow-up report, and it's reflected in the title of the -- the report, it's hydrologic response to irrigation pumping in Diamond Valley, Eureka county, Nevada, 1950 to 1965.

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So this was a -- I will say this is the USGS in cooperation with the Department of Division of Water Resources doing a more in-depth study of Diamond Valley than they had from the 1962 recognizance-level investigation by Tom Eakin.

Q. And so just by the title, does this indicate that irrigation pumping had begun -- had already begun in Diamond Valley?

A. That's correct.

Q. Okay. And as early as 1950, according to the title of this?

A. That's correct.

Q. Okay. And so he was just trying to figure out what's happening to the aquifer in response to that pumping?

A. Yes. There is a tremendous amount of growth and development of agriculture in the valley.

So yes, this was an effort to understand the hydrologic responses that the system was under and also made projections about the future of the Diamond Valley under those pumping stresses.

Q. Okay. I'm not -- I don't want to get into what he was talking about in the future.

A. Right.

Q. I'm more interested in his -- looking back at the past, because that's what we're here to do.

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So if you'll turn to page 1 of that report where it says "abstract" at the top, the first sentence of the last line, could you read what that says?

A. The first sentence of the last paragraph?

Q. Last paragraph, yeah.

A. Pumping during the 16-year period 1950 to '65 has resulted in an estimated groundwater storage depletion of 60,000 acre-feet which is roughly equal to a total net pumpage for the period.

Q. Okay. So there's already significant pumping going on at this time?

A. Yes.

Q. And so then if you'll turn to what's page 31. It's actually like the fourth page in the excerpt?

A. (Complies.)

Q. Does this, in fact, show what the measurements he took are at Big Shipley?

A. Yes, this is Table 9 from his report, page 31. And if you go three down -- three lines down under the subheading "west side," you'll see the section, Township, range, the location, and then Shipley Hot Spring.

And then continuing on to the right-hand columns you'll see the date and the discharge measurement that he made coming out of the Big Shipley Hot Spring pond.

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Q. Okay. And so the first measurement was on September 22nd, 1965?

A. That's correct.

Q. And that was 7.1 -- 7.19 CFS?

A. Yes.

Q. And then the second one was April of the following year?

A. That's right. April -- it looks like April 1st, 1966, at 7.01 CFS.

Q. Okay. And then the third one was October of '66?

A. Yes, October 19th, 1966, 6.20 CFS.

Q. So over the course of a little over a year the spring flow measurement declined by almost a whole CFS; is that correct?

A. That's correct.

Q. Okay. Is there any indication that his first measurement was the exact time when spring flow started declining?

A. No.

Q. Would that be reasonable to assume?

A. Not in my opinion.

Q. Okay. So spring flows would have started declining before that?

A. Yes, I believe so, because the history of well

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development on the west side of the playa began in the early 1940's.

Q. Okay. So you mentioned the State Engineer method of calculating the spring flow was to take Harrill's measurement and then add some factor for -- to try to account for that decline?

A. That's correct. I believe he averaged the three values that we just cited, which I think are approximately 6.8 CFS, and then he added in a small contingency of .22 CFS for possible pumping effects.

Q. Okay. So whether or not we agree or disagree with the possible -- the .22 for possible pumping effect, why would he apply that to an average instead of the first measurement if the declines were happening before the first measurement?

A. I do not know.

Q. Okay. So essentially what the State Engineer was trying to do was take something from 1965 and extrapolate back to try to figure out what was happening in 1905?

A. To extrapolate back 60 years, that's correct.

Q. Okay. Is that an easy thing to do?

A. It's not an easy thing to do. You know, if we were lacking any other data, then that would perhaps be the only thing we could do if we wanted to try to understand the

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flow -- original flow rate of the spring, but in this case, there are other pieces of data and observations that I believe should be factored in.

Q. Okay. And so ideally the data you would want to look at is before any development happened; correct?

A. Ideally we're looking for something that is 1905 or earlier, but that is a -- possibly not -- does not exist, so...

Q. Okay. But absent an actual measurement prior to 1905, would you want to look -- you would want to look at data points that occurred before any effects might have occurred -- hydrologic effects might have occurred in the valley from pumping?

A. Yes. Yes, and I will say and also other physical changes besides just that, physical changes that occurred, for example, to the spring pool or modifications to the spring, et cetera, that could have affected the discharge.

Q. Okay.

A. So it's more than just the historical pumping.

Q. All right. So let's go back to your report. I believe it was 185, Exhibit 185; right?

A. (Complies.)

Q. And let's go back to that table on page 11.

A. (Complies.)

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Q. And are there, in fact, plot points on this table that are before 1950?

A. There are.

Q. Okay. How many?

A. Six.

Q. Okay. So let's start with the first one. There's a little red X right next to the 8.0 in the 1912 time frame. What does that signify?

A. So that's plotting the Payne observation as a visual estimate of flow that he made on November 18th, 1912.

Q. Okay. And we've already talked about that one; right?

A. That's correct.

Q. And that was the 8 CFS or more?

A. That's correct.

Q. Okay. Then higher reported flow is by -- there's a -- is it orange, the orange circle is the next one on the -- the next one chronologically; is that correct?

A. Yes, on the legend it's Romano versus Sadler, 1913.

Q. Okay. And what does this refer to?

A. So there was litigation at the time and a subsequent stipulation that related to a portion of the discharge of Big Shipley Hot Springs being allocated to the

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lower Romano field on Sadler Ranch.

So this is relating to what they determined at the time to be the total discharge from Big Shipley Hot Spring and then partitioning one-third of that, or 5 CFS, for a period of time in the winter, January 1st through April 1st, to be allocated to that lower field. I believe Mr. Buschelman has testified some on that already.

Q. Okay. And that's what I was just going to ask, if that's what Mr. Buschelman already testified to is the Romano versus Sadler stipulation; correct?

A. Yes. Yes.

Q. And so that one said that Romano got 5 CFS and identified 5 CFS as one-third the flow of the spring?

A. That's correct. It's stated that the natural flow of Big Shipley Hot Spring was 15 CFS; one-third of it, being 5 CFS, would be allocated to Romano and the lower field on -- below Shipley Hot Spring and Sadler Ranch.

Q. Okay. So in 2013, you mentioned that you testified at a State Engineer hearing on -- regarding the Sadler Ranch mitigation rights; is that correct?

A. That's correct.

Q. At that time in 2013, was the Romano versus Sadler stipulation available to the State Engineer?

A. I can't recall if the stipulation was available.

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And I think I should also note that at the time that I published this 2019 plot and report, I did not understand the basis for the 15 CFS at that time either.

Q. Okay.

A. We subsequently discovered what the basis is.

Q. Well, that's what I was trying to get at. I believe the stipulation was entered into the evidence in 2016, but that it was just the stipulation. Would that accord with your memory?

A. Yes.

Q. And so you didn't know what that was based on?

A. That's correct.

Q. And subsequent to that, did you come to learn what that reported discharge was based on?

A. Yes, that's correct. We found that -- not myself, but the -- Mr. Frazier and his team researching found the document that this stipulation was based on, and it's a document prepared by an irrigation engineer in March of 1912 where he spent three days on the ranch mapping the flows, determining the flows from the point of origin, Shipley Hot Spring, down to this lower field in Sadler Ranch.

Q. So if you turn to page -- excuse me, Exhibit 105 in your Exhibit binder?

A. (Complies.)

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Q. Is this, in fact, the affidavit that that engineer filed with the Court for the Romano versus Sadler case?

A. Yes, it is.

Q. And does this affidavit describe what was done on the site that you just described?

A. Yes, it does. It describes both his qualification and experience, his field work, spent what he accomplished over three days, March 1st through 3rd, on the ranch mapping.

It describes his -- also his visual estimates of flow commencing at Big Shipley Hot Spring and then down through the system to the Romano field below Sadler Ranch.

Q. And so what he -- this was done -- he indicates that his field investigation was done in March of 1912?

A. Yes. He indicates he spent three days at the ranch, March 1st, 2nd and 3rd, and his affidavit then was drafted and signed on March 7th of 1912.

Q. Okay. And Payne was out there in November of 1912. Nickerson would have been out there before Payne; correct?

A. That's correct.

Q. Okay. And to pick up on something opposing counsel said yesterday, March of 1912 is closer to 1905 than

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November of 1912; is that correct?

A. We're getting close to 1905.

Q. Okay. And he indicated he had 25 years of experience?

A. Yes. He indicated that he is an irrigation engineer with 25 years of experience.

Q. And by filing this as an affidavit he's swearing this under penalty of perjury; correct?

A. That's correct.

Q. So this is not just a note he's taking and filing away in a file cabinet at the State Engineer's office; this is an actual sworn testimony before a court?

A. I take this to be true and accurate information.

Q. Okay. Does he indicate in here what the flow of the Big Shipley Spring was?

A. Yes. At the source, Nickerson indicated that he did not take a direct measurement because of conditions. He didn't express what the conditions were, but he said by visual estimate he placed the discharge at the spring at 400 to 500 miner's inches. So he gave a range.

Again you have an irrigation engineer with considerable experience making a visual estimate which has an error associated with it any time do you that. He provides a range of 400 to 500 miner's inches. And there's 40 miner's

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inches per 1 cubic foot per second, so that's an old volume of flow that we run across but we don't use anymore.

So that places the discharge by his estimate at 12.5 to 15.0 CFS.

Q. So he actually, like a good engineer, gave himself an estimate range?

A. That's correct.

Q. Okay. And that was 12 and a half to 15 CFS?

A. That's correct.

Q. And you said he spent three whole days at the ranch?

A. That's correct.

Q. Not one hour?

A. That's correct.

Q. Okay. At the 2019 hearing on the preliminary order in this case, was this evidence presented to the Court State Engineer?

A. Excuse me, which date? Which hearing?

Q. At the hearing that you testified at on the objections to the preliminary order in this case in 2019 in front of the State Engineer; do you know what I'm talking about?

A. Yes. I'm not a hundred percent sure. I think it was available, but I noticed it's not in my written document

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or report so I believe he did not have this document in the 2019 hearing.
Q. You didn't testify to this document at the 2019 hearing?
A. Going back from memory here, I -- I honestly can't recalled, David.
Q. Okay. If I represented to you that this was an Exhibit at the 2019 hearing, would you have a reason to doubt that?
MS. PETERSON: Objection, Your Honor. That's inappropriate. He's leading the witness.
THE COURT: Sustained.
THE WITNESS: If I may, I'm trying to go back through the memory base here. Sorry. But yeah, I do believe this was provided, but I did not have it at the time that I issued my professional report in that hearing.
BY MR. RIGDON:
Q. Okay. So --
A. I believe it was something that was discovered between the interim period of when we filled that document and when we held the hearing.
Q. So this document wasn't in your report; it was presented at the hearing?
A. That I believe is correct.

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Q. Okay. And so the State Engineer had this information when he -- at the hearing on the objections in 2019?
A. I believe that's correct.
Q. Okay. Is there anything in the preliminary Order of Determination -- I mean in the final Order of Determination the State Engineer issued after that hearing that references Mr. Nickerson at all?
A. No reference.
Q. Okay. So the State Engineer essentially just ignored this?
MS. PETERSON: Objection. Objection, Your Honor. That is not a proper --
THE COURT: It's sustained.
MR. RIGDON: Okay.
BY MR. RIGDON:
Q. All right. Let's go back to the -- your expert report and that graph. It was Exhibit 185, and the graph is on page 11. I believe.
THE COURT: Exhibit again, counsel?
MR. RIGDON: 185.
THE COURT: Thank you.
MR. RIGDON: And we're at page 11, Your Honor.
BY MR. RIGDON:

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Q. So now let's go to the next plot on your graph. We now know where that 15 CFS plot came from. What's the next plot on your graph that's also a 15 CFS plot?
A. Yes. That was also some litigation between Eccles and Sadler in 1917 that also used the 15 CFS value as a reported discharge for Big Shipley Hot Spring.
Q. And is it your understanding now that that value, like the value of the Romano Sadler litigation, came from the Nickerson field investigation?
A. That's my understanding. The Big Shipley Hot Spring.
THE COURT: And I was just a little bit behind you, catching up with that. Would you ask the question again and --
MR. RIGDON: Sure.
THE COURT: Go back to the plot.
MR. RIGDON: No problem, Your Honor.
BY MR. RIGDON:
Q. So that plot for the -- it's the little red plus sign, and the plot right before it which is the little circle, orange circle, those relied on the same Nickerson field investigation?
A. (No audible response.)
Q. So you wouldn't today, if you were replotting

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this you wouldn't count those as two separate reports?
A. Yes, I think with the Nickerson field investigation information we would put just one point in, because I believe both of these represent our -- or just express the measurement made by Mr. Nickerson in 1912.
Q. Okay. So let's move on to the next -- the next one of the six that we were talking about. There's a little I guess it's an orange triangle that's not filled in.
Do you see that one?
A. Yes.
Q. And what is that?
A. This, as I recall, was an account by Alfred Sadler, I believe, and where he placed the flow -- his estimate of the flow at 13 CFS. Now, I --
Q. Do you know anything about who Alfred Sadler was?
A. Not in detail. Just one of the Sadlers.
Q. Okay. Do you know if he resided on Sadler Ranch?
A. Yes.
Q. And when you say this was a report, was -- what was it from?
A. As I recall, this was an accounting of the assets of the ranch at the time. So it went through just some basic descriptions of the land and the stock and the spring flow where he's expressed that the 13 CFS of spring flow supported

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the ranch.
Q. Okay. So he filed a report, was it to another relative named Sadler?
A. I believe it's a letter of some sort writing to another relative.
Q. Okay. So he's informing this other relative who doesn't live on the ranch what's happening on the ranch?
A. That's my recollection.
Q. Okay. And he indicated that the flow was 13 CFS?
A. Yes.
Q. All right. So let's go to the next one on the plot. It's the filled-in orange triangle. What's that reported value?
A. So this reported value, it equates to 11.1 CFS. And I've placed this at 1937 because that's the date of the publication, but it would have been some manner of measurement or visual estimate by a USGS scientist prior to that date.
So this is in a USGS publication on thermal springs of the United States. Shipley Hot Spring was acknowledged in this document and basic information on it was provided in this document.
Q. And who published the report?
A. It was published by Stearns, Stearns and Waring as last names.

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Q. But who -- who do they work for?
A. The United States Geological Survey.
Q. Okay. So this was an official government publication from the USGS?
A. That's correct.
Q. And they were all employees of the USGS?
A. That's correct.
Q. And -- and it reported -- it reported on a lot of different thermal springs in the western United States?
A. It did.
Q. And Big Shipley was one of those springs that it called out and reported?
A. That's correct.
Q. And what was the report?
A. The reported flow or --
Q. Yes, the reported flow.
A. Yes. So there are flows reported in units of gallons per minute. It was reported at approximately 5,000 gallons a minute which converts to a 11.1 cubic feet per second.
Q. Okay. And are there any footnotes next to the report?
A. Yes. In a tabulation of the discharge data, they also referenced the citations for where that information was

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derived. So this is a compilation of hundreds of published documents and information along with data that the USGS had in their files at the time.
The document indicates that a lot of the data was compiled in the 1925 through 1927 time frame, so subsequently published in 1937.
So there are three reference sources for information on Big Shipley Hot Spring. One of them dates back to 1875. And but -- and there's another one that was published about 10 or 15 years later in the 1800s. So two very early publications that were producing information data on thermal springs.
Both of these report temperature, they acknowledge the presence of a significant spring at Big Shipley Hot Spring, but those two earlier 1800 documents do not report a discharge unfortunately, just temperature and some other basic maybe cultural-related information.
But the third footnote on this is -- expresses explicitly data from the files of the U.S. geologic survey, so by default, the discharged values have a referenceable source of data in the files of the U.S. geological survey.
Q. Okay. And were you able to locate that data?
A. Unfortunately we were not. The Carson City, Nevada office of the USGS contains data back to the 1940s. At

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the time I believe the nearest U.S. Geological Survey office was operating in Salt Lake City.
So there were efforts to -- to try to see if there was anything archived in Salt Lake City or in Washington, D.C., but we could not resurrect any data -- the data that is being referenced.
I should note that the data is the -- further described in this report as being unpublished data. So it wasn't published in any particular report. But which for the time I would say was fairly common.
You had geologists working throughout this region that would be making measurements. They would go on file -- all sorts of measurements. They would get produced in files but they weren't necessarily ever published in reports.
Q. And during your work as a hydrogeologist over the years have you had the opportunity to work with USGS personnel?
A. I have.
Q. And has that brought you to an understanding of what they might mean when they use the term data?
A. Yes. The Geological Survey has very rigorous standards -- they always have -- for what they consider data.
So it is some type of measurement-based observation. Now, I will say that visual estimates by a

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qualified hydrologist would be considered data. Visual estimates would. Secondhand reports of discharge, et cetera, are not considered data.

Q. So --

A. By their standards.

Q. So the Alfred Sadler report that we just mentioned before, that wouldn't have been considered data by the USGS?

A. No.

Q. They have a much more rigorous standard?

A. They do.

Q. Okay. Did that same publication have any information about other springs in Diamond Valley?

A. It does, and I recall that it also has a value for what they called Siri spring, but the location plots to be what we call today Eva Spring on the Brown ranch.

Q. Okay. And at the time was the Brown ranch owned by somebody named Siri to your information?

A. I'm not sure.

Q. Okay. But we've equated that to the Siri Springs; correct -- I mean, to the Eva Spring; right?

A. Yes, the location is described by section, Township, range. So it is in the same section, Township, range as Eva Spring.

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Q. Okay. And is it your understanding that in the proof filed on Eva Spring, that was the reported value that the State Engineer relied on in making his determination in the final Order of Determination?

A. That's my recollection.

Q. So he found the USGS report reliable with respect to Eva Spring; correct?

A. I think it's the best available estimate we have in a time frame near to 1905.

Q. Okay. So having this reliable USGS publication, is there any mention of it in the final Order of Determination with regards to the flow of Big Shipley Springs?

A. Not for Big Shipley Hot Spring.

Q. Okay. So he used it for one spring but not the other?

A. That's correct.

Q. And he doesn't even mention it; correct?

A. Not mentioned it.

Q. Okay. So let's move forward to the last one which is a little I don't know if that's blue or green hollow circle; do you see that?

A. I do.

Q. And what does that refer to?

A. So this is an account made many years later by an

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individual that worked on the ranch for three years between 1937 and 1940. His name was Floyd Slegkowski, and this is in a memoir that he published and happened to mention that the -- a little bit of description about Big Shipley Hot Spring on the Sadler Ranch, that it was a significant spring and that it discharged about 12 second feet or CFS.

So this is an account that was provided by an individual that worked on the ranch, an account that was made 50 years-plus after he worked on the ranch.

Q. Okay. So but he worked on the ranch for how long?

A. For three years.

Q. Three years. Okay. So in that time, he got familiar with the ranch?

A. Yes, I assume so.

Q. Okay. And what did he report the value at?

A. His report was 12 CFS.

Q. Okay. So in total we have actually five, not six, reports of spring flow from Big Shipley prior to 1950; is that correct?

A. That's correct.

Q. But the State Engineer in his final determination only referenced a single one of those; correct?

A. That's correct, the Payne visual estimate of

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flow.

Q. Okay. In your experience as a hydrogeologist in trying to use historical records like this to determine what spring flows are, what level of reliability would you attach to each of these plot points, these five plot points?

A. So as a scientist and an engineer, I consider three of these to be data and then the others to be accounts.

So the three that I consider to be data made by qualified individuals would be the Payne visual estimate.

THE COURT: What was the first one?

THE WITNESS: The Payne.

THE COURT: Payne, thank you.

THE WITNESS: 1912 visual estimate. The Nickels visual estimate.

THE COURT: Or Nickerson?

MR. RIGDON: Nickerson.

THE WITNESS: Excuse me. Nickerson. There you go. And then the published value in the 1937 USGS document.

BY MR. RIGDON:

Q. Okay. So let's compare those three which you consider to be reliable sources. As we mentioned, Payne was on the ranch for maybe an hour?

A. Yes, based on the ground that he covered, he physically would not have been able to spend much time on the

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ranch.
Q. Okay. Whereas Nickerson was on there for three full days?
A. That's correct.
Q. And the USGS, we don't know how long they were there or what measurements they made, but we do know that they have very rigorous data standards; correct?
A. Since the source is data on file with the USGS I assume that there's some type of measurement or visual estimate made by a geologist employed by the USGS.
Q. So if you had to select one of those values to be valued -- to find the most reasonable value for the flow of the spring, which ones would you give the most weight to?
A. First and foremost Nickerson for several reasons, one of them being the amount of time that he spent documenting the flows, estimating the flow from the source all the way down to the terminus; but also more importantly, we know his level of experience and it was quite significant.
25 years at that time as an irrigation engineer meant that his entire career was devoted to management of surface water resources in flood irrigation settings. We had no other irrigation types in 1912. We didn't have groundwater as a source. In most areas in 1912 we didn't have it in Diamond Valley.

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So if you look at the span of his career, he has considerable experience and I put a high degree of weight on that piece of data.
Q. Okay. And is there a difference between accuracy and reliability?
A. Yes.
Q. Could a measurement be incredibly accurate like a measurement down to a hundredths of a CFS flow, but be unreliable?
A. Yeah, yeah, you can end up with that circumstance. You can -- but that just happens in science. You take very, very high precision measurements, but there could be errors associated -- for example, even when we go out and make stream flow measurements we calculate it out to a very high level of accuracy, but the reliability which I associate is then considering a lot of other variables that introduce -- such as just standard errors in measuring methods. So yeah, there is a difference between the two.
Q. Would distance and time reflect the reliability of an otherwise accurate -- very accurate measurement?
A. Yes. If there's been physical changes that have occurred in that time span, absolutely.
Q. So whereas if you have a shorter distance of time, but maybe a -- a measurement that is not accurate to a

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hundredth but maybe a range of 12 to 15 CFS but closer in time, it could be more reliable than the more accurate figure?
A. That's correct. You have a more reliable piece of data, but it could have lower accuracy as far as its error bar could be greater.
Q. Okay. Now, you mentioned that in Harrill's report significant groundwater development had already begun; correct?
A. That's correct.
Q. And the State Engineer actually recognized that and that that could have had an effect on spring flows; correct?
A. That's correct.
Q. And was there other factors that might have made Harrill's -- Harrill's measurements are accurate; right?
A. Yes, I agree, accurate measurements.
Q. And that measurement is down to a hundredth of a CFS; correct?
A. That's correct.
Q. So a high level of accuracy. Is there another factor other than the groundwater development that could have affected the reliability of that estimate to try to -- in 1965 -- or that measurement in 1965 to try to determine what was happening in 1905?

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A. Yeah, there's one significant item and this was something that I really hadn't thought about in a great deal of detail until recently. I believe we may have touched on it briefly in prior hearings.
But the stage or the water level in the pool in this particular case makes a large difference on the amount of discharge that's coming out of the spring pool, and the reason is really is just it's simple hydraulics, that because the -- the spring is emanating from the bottom of the spring pool -- it's what we call a submerged spring orifice -- the spring is coming up through the bottom of the pool so you have the weight of the water above that and that's back pressure.
So -- and by the way, some ranches and farms actually acknowledge this and managed it and still purposely pump out of pool to keep the water level lower, and they'll get a higher yield out of their spring because there's less weight of water; there is less back pressure.
But that's important, and it explains both variabilities that were observed over time and measurements. The height of that pool and the weight of the water on top of it at that particular instant a flow was measured made a difference in how much was discharged and how much spring flow.
But when we start to look historically and think

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about what's the pool height and the pool condition the same in 1905 and prior to when we started to have higher accuracy measurements in the mid-60s and onward, and I believe the -- I believe this is a significant variable in explaining some of the difference that we see between when we were out on the ground in 1965 and the observations made prior.

I believe there was changes in the spring flow that occurred historically.

Q. And why would somebody do that if it would lower the volume of the spring?

A. Well, usually it relates to trying to manage the water coming out.

So if you're having difficulties, say, getting water out of your spring pool into your highest elevation ditch, then you would start to try to raise the dam or the outlet to get higher head and push water out through your highest elevation ditch.

So that would be kind of the normal reason. You wouldn't, of course -- well, you might have thought you were getting some extra storage volume by raising the dam also, not recognizing that it was going to affect your spring discharge. That's a possibility.

Q. So if spring flows were declining, lowering of the velocity of the water coming out of the spring, they might

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add board to try to fix the problem by creating a greater head?

A. Yeah, if you're starting to -- starting to struggle with delivering water out to your developed pastures and fields, that very well could have been the thought process is to let's raise the outlets so we can get that higher head to come out through our upper ditches.

Q. Okay. But it becomes a downward spiral. You try to raise it -- you're losing spring flow, try to raise it get the flow out there, but that in turn declines spring flow more so you try to raise it more, and it becomes this battle?

A. It's a downward spiral.

Q. Okay.

A. Yeah.

Q. All right. And that's what's described in your report that -- in the binder, your supplemental report, Exhibit 186?

A. Yes, that's correct. And in this -- in this report I describe that condition and also pointing out some observations from circa 1920 photographs versus conditions we observe today, conditions that were reported when Jim Harrill began making his discharge measurements in the mid-60s.

Q. And what evidence is in your report here to show that that response to declining spring flows by building up

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the boards might have been happening at the Big Shipley Spring?

A. Well, the evidence that I am looking at as far as the spring pool stage having changed and risen is really reflected in some of what you see in the land masses that are appearing in the interior of the spring pool.

Q. I'm going to interrupt you real quick, Mr. Smith. Are you looking at page 3?

A. Yes, that's correct.

Q. Okay. I just want to make sure the Judge knows what we're looking at.

THE COURT: Is that Exhibit 186?

THE WITNESS: That's correct.

MR. RIGDON: Exhibit 186, yeah.

THE COURT: Okay.

MR. RIGDON: And page 3.

BY MR. RIGDON:

Q. Okay. Go on.

A. So in the bottom photograph there I've zoomed in, and this is the picture circa 1920 of Big Shipley Hot Spring. And I've noted on this that, you'll see in the bottom part of the spring pool area there's a linear feature crossing part of the spring pool. This I believe to be an old dam structure. We don't have any historical records or knowledge on it.

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But it is -- it still exists today, it's just that it's submerged. It's submerged under about 1, 1 and a half feet of water today. But you can see in this circa 1920 photograph that it's emerged out of the water. And you also see land masses on the east side too that are exposed out of the spring pool which are submerged today.

So my premise here is that there has been a historical change in the pool level. We don't know precisely the reasons why, but there has been a change. And this is also supported by Mr. Nickerson's survey versus subsequent measurements out.

Mr. Nickerson, when he mapped this, the spring pool showed an A, B, C, D ditch coming out; four diversion ditches out of the spring pool. By the time Jim Harrill made his measurements there were only two outlets out of the spring pool, so something had changed as far as the outlets.

And those outlets today are -- still exist. There are two primary spring outlets that we have to measure if we want to determine how much discharge is coming out of the spring pool. Jim Harrill was measuring at two points and adding those together to get the total discharge.

Q. Okay.

A. So what I'm seeing in this gives me a little more comfort, because honestly, over -- kind of over the years of

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having looked at this issue, it's always bothered me, it's always troubled me that we have the older reported discharge measurements and there's quite a bit of disparity between what started in 1965. We can explain some of that with some effects of pumping draw-down, but it doesn't seem like it's a large enough effect.

This -- the hydraulics easily explains the circumstance. So when we -- when we drilled the mitigation well next to the spring and we measured by using survey transit to a static water level elevation of the well right outside the spring pool, the well is drilled and taps into the fracture zone that (indiscernible) the pool into (indiscernible) source.

It's only half a foot above the spring pool as it was operating back in when they drilled it in 2015. What that is telling us is at the time there was about 2 or 3 CFS of natural spring discharge still occurring. It was occurring under one-half of a foot of head, only one-half a foot of head driving that spring flow.

If you take that water level down in the aquifer half a foot, the spring flow ceased. And that was indeed what happened, the spring flow ceased years later.

So this is a very -- the fracture zone feeding this -- this spring and pool has a very high transmissivity

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and it didn't have a lot of head on it, but it was producing a lot of flow because there was a really old fracture zone down there. It didn't take much head to get a lot of discharge out of it.

So when you start to mess with the back pressure on it, the weight of the water on it, and you lift it 2 or 3 feet, you could very easily impact -- with all the information we have and understanding about this spring, that would have significantly affected the spring discharge.

So I believe in my mind that closes -- that closes the gap here. I have reliable estimates from close to 1905 and I can close the gap with spring stage pool changes to get me to where then we have high accuracy measurements from 1965 and proceeding on into the future.

Q. Going back to Harrill's measurements in 1965 and 1966, when Harrill made those measurements and issued that report, did he make any opinion as to whether that represented the pre-1905 flow of the spring?

A. No, he did not.

Q. Did he make any attempt to extrapolate backwards himself?

A. No.

Q. So that didn't occur until the State Engineer took it upon himself to say this is the measurement we're

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going with and we're extrapolating back?

A. That's correct.

Q. But as you mentioned, in the extrapolation back process you're going through a fog of 50 years of potential changes and potential effects; correct?

A. Yes, that's correct.

Q. So does that -- either that fog or that 50 years of these potential effects that you talked about, does that reduce the reliability of Mr. Harrill's measurements to determine what the pre-1905 spring flow were?

A. Yes, I do not feel that those 1965 and '66 measurements represent the original spring discharge from Big Shipley Hot Spring pre-1905 measurement.

Q. Okay. So given all that we've talked about here with these different reported measurements and the weight -- the weight that should be given to the different reports and measurements, what is your ultimate opinion on what the pre-1905 flow of the Big Shipley Spring was?

A. Well, I'm going to approach this being a scientist and engineer. First off, I'm going to take those three pieces of data that I have -- not just accounts by untrained eyes, but the three pieces of data we have. We have Payne visual estimate, the Nickerson visual estimate, and the USGS published value.

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So then I'm going to think about how do I potentially weight the reliability of that information. I could just take a straight average at all and just say well, we know there's errors in techniques and measurements and average and you end up at about 12 CFS.

I could also look at it and say okay, Nickerson had the most experienced eye based on the information that we have, he presented an error bar, if you look at the lower end of his error bar it's at 12 and a half CFS. That's very close to my average. I like that.

Then if I look at the USGS published value at 11.1 CFS, I mean, okay, now I have another value that's pretty near to my average value.

So my best available estimate of the pre-1905 discharge of Big Shipley Hot Spring is 12 CFS, and it's based on those three pieces of information and then what we know about the source and potential accuracy of those three pieces of information.

Q. Okay. And so that's the scientist, the three pieces of data. Does that also just happen to corroborate with the reported -- the two reported plots from Alfred Sadler and Mr. Slegkowski?

A. Yes, there is a lot of consistency at that point with the reported values on the ranch.

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Q. So 12 CFS is pretty much in conformance with four of the five pre-1950 (sic.) reports and measurements?
A. Yes.
Q. Okay. The only one that is not is the one by Payne who was an inexperience engineer at best.
MS. PETERSON: I'm going to object, Your Honor. That's misrepresenting the testimony.
THE COURT: Sustained. He was an assistant engineer. Right now at this point we don't know his background.
MR. RIGDON: Okay. We'll just leave it at that.
BY MR. RIGDON:
Q. All right. So let's finish with Big Shipley Spring and let's move on to one of the other springs on the Sadler Ranch, the Indian Camp Spring.
Have you reviewed Sadler's claims with regards to Indian Camp?
A. I have, but not recently.
Q. Okay. And did you review the final Order of Determination regarding that claim?
A. Yes.
Q. All right. Can you describe the Indian Camp Spring?
A. The Indian Camp Spring is located on the fault

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scarp. So a fault scarp is a hummock that is created by uplift and offset along the fault, and it's a very common place for a weakness in -- and an avenue for groundwater to come up (indiscernible) as a spring. So this is a very common circumstance.
So it occurred along a length of that fault scarp; it wasn't at one point. There appears to be numerous seeps that occurred along that fault scarp. And it's --
Q. How is it similar or different from the Big Shipley Spring in its character?
A. Well, Big Shipley Spring Number One, is it's discharging almost at a point. There were numerous little orifices but that's coming up right on point. The volume as mentioned. So it's a much more distinct source and volume, of course, is was notably larger.
Q. And so the Indian Camp was more diffuse?
A. That's correct.
Q. Okay. Would you describe it as more like a seep?
A. That -- that is -- based on the information we have, that is how I view that spring. And again, this is based on really some of the older historical aerial photography, some of the description that Tom Eakin has in his 1962 report.
Q. Okay. And what condition is the spring in today?

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A. It's dry.
Q. Okay. So turning your binder to exhibit -- oh, you know, forget it. Don't do that.
Do you have any reports regarding the flow -- historic flow rate of the Indian Camp Spring?
A. Yes, both Tom Eakin in his 1962 report made a couple of flow measurements, and also Jim Harrill did in his -- reported in his 1967 report.
Q. Do we have any reported measurements or observations prior to Eakin's in 1961?
A. Not to my knowledge.
Q. Okay. So, in the case of Indian Camp Spring, there is just not that pre-1950 data that we have to look at like we did with Big Shipley; right?
A. That's correct.
Q. So we don't have any other choice but to look at Eakin and Harrill and try to determine what the flow rate -- try to extrapolate back from then; right?
A. I agree.
Q. Okay. Do you know what the reported estimate was from Eakin?
A. I would want to look at his values.
Q. Well, let's do that. Let's go to Exhibit 448. You know what, I guess my person who excerpted this excerpted

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out the part where he reports the value of the spring, so don't look at that exhibit.
We do have it for Harrill, though; right? And that would be under Exhibit 449?
A. Yes.
Q. Okay. On page 31 of Exhibit 449, this is the same page where Harrill reported the Big Shipley Spring measurement?
A. Yes.
Q. Okay. And which of these springs represents Indian Camp?
A. Yes, it's the fourth -- fourth row under the west side category. It's titled "Unnamed," and its Township, Range and Section is 24, 52, 26D, "Unnamed," and that's the location of Indian Camp Spring.
Q. Okay. So that's how you determined that the Unnamed Spring was actually Indian Camp Spring was by the location data that he gives here?
A. That's correct.
Q. All right. And what did he report as the flow measurements from Indian Camp Spring?
A. Yes. On December 7th, 1965, 0.66 CFS. On April 1st, 1966, 0.82 CFS.
Q. Okay. And had anything that you know of

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significant happened to the Indian Camp Spring prior to Harrill taking its measurement?

A. Yes. This is better described in Tom Eakin's study of 1962. When Mr. Eakin was out doing his field work, which I believe was in 1961, he observed that the Indian Camp Spring had a trench, what appeared to be a relatively recent trench excavated north to south along the spring line.

And this was done to facilitate collection of that seepage and consolidate it into one collection point fill and discharge out.

Q. How would that have affected Mr. Harrill's measurement?

A. Yes. So I'm going to go off of memory here. I think I remember the exact values. Tom Eakin I believe reported two measurements -- we can probably look at one of my exhibits -- at one-half and 2 CFS coming out of this ditch, but if I recall correctly, and this might be from his field notes also which I had access to, is that the trenching appeared to be relatively recent.

So Tom Eakin did observe greater discharge out at the 1961 timeframe that he made his measurements.

Q. Okay. So you think Eakin's measurement was the one that was more affected by the trenching of the spring?

A. I do.

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Q. And that would have made it higher than what you believe the pre-1905 flow was?

A. Yes. Just like when we drill an artesian well, initially we get a higher discharge, but once we reach a state of equilibrium it usually produces less. The same thing will occur at the spring.

We originally open it up and deepen that collection system. You would expect that initially you might have higher discharge than what you might have a year or two after things have equilibrated.

Q. Okay. So then should we just use Harrill's measurement?

A. Well, my -- but the complication, again, is that we're working on a timeframe where there had been 20 years of well drilling occurring along the west side of the playa, so I would caution that there could be some effects of well drilling and artesian flows and pumped flows at the time when Harrill made his measurements.

So if I recall correctly, how I computed a possible pre-1905 discharge measurement is I took the low number of Eakin, .5 CFS, and added to it the average of Mr. Harrill's measurements, which is about .7, and I averaged those two values together then and that arrives at about 1.1 CFS, I believe, a little over 1 CFS.

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And I said, well, based on the information I have, my understanding of this historic conditions, that is my best available estimate to try to project back to 1905.

Q. Do you think you have a good understanding of these flow systems?

A. I have a pretty good understanding of these flow systems. I have been working in the valley since 2007. I completed the numeric flow model for the basin. We did detailed geophysical surveys at Big Shipley Hot Springs to understand the subsurface structure, helped to then drill -- to help design and drill the mitigation well that went into the spring source, fracture zone that was the spring source.

There's always more to learn, but I have a pretty good understanding of how these spring systems occurring.

Q. And I think you just said you actually helped create the groundwater model for this area?

A. I -- I built, I was the primary modeler for the Diamond Valley flow model that included Kobeh Valley, portions of the Pine and Antelope Valley.

Q. And so that would give you a pretty good understanding of these flow -- these flow systems?

A. I've looked at the data considerably. I've tried to model these spring systems. And again, we've done more detailed on the ground work to try to understand how these

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flow systems operate.

Q. Okay. And so you believe the best estimate of pre-1905 flow, given all of your understanding of not just what occurred specifically at Indian Camp Spring, but the flow system in general, is 1.1 CFS?

A. That's my best estimate. And I will acknowledge that there's a larger error bar on that estimate. I can't quantify it, but we just have less certainty with the information that's available.

Q. Okay. So let's move on to another spring now. There's a spring that's been identified in this proceeding as Shipley Springs Number 2.

Are you familiar with that?

A. I am.

Q. And what is that spring?

A. So Shipley Spring Number 2, as we've called it, is actually identified on the USGS topo maps as Shipley Hot Spring. USGS topo maps to this day still have misidentified where Shipley Hot Spring is.

So this spring is located roughly a quarter mile to the south -- I think around a thousand feet or so to the south. And of course it's dry today. There is evidence that it was developed; however, there's -- at least at the time when I was making inspections, it had a cistern collection

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pipe in it and then with two pipe laterals coming out of it, and there's evidence of a pool that approximately I think 150 feet in diameter that existed at that spring.

And this spring is clearly evident on the 1946 aerial images also so it was a spring of significance.

Q. Okay. And you described the cistern. Can you turn to Exhibit 193 in your binder.

A. (Complies.)

Q. Is that a photograph of the remnants of the cistern that you were just talking about?

A. Yes, as of year 2013.

Q. Okay. So this was taken 2013. At that time, there was no spring there?

A. That's correct.

Q. Okay. But this is -- this shows the remnants of the infrastructure that had been put in at that spring; correct?

A. Yes, that's right. It shows the collection system and you can possibly make out the topographic depression where there was at one point a pool, a shallow pool at this location.

You notice also in the upper left is a topo map where it labels this spring, Shipley Number 2, as Shipley Hot Spring, but you can tell from the map where the spring pool is

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to the north there; that's where Shipley Hot Spring is as we understand it.

Q. Was this spring significantly smaller than Shipley Hot Spring -- Big Shipley Spring?

A. Yes, as we understand it, it did not discharge the magnitude of water as in Big Shipley Hot Spring.

Q. And does that -- on that same page that we're looking at the picture, is there -- does it show that 1946 aerial also that you were referring to?

A. That's correct.

Q. And -- and that -- does that show the spring flowing generally in an eastward direction toward the Sadler fields?

A. The topography of the area, again, right at the spring pool itself is a depression. But other than that, the topography is eastward sloping down towards the cultivated fields on Sadler Ranch.

Q. So is it your opinion that this spring would have commingled with the waters of Big Shipley Spring to help irrigate the Sadler Ranch?

A. Yes, I believe so. It was piped out. You can see evidence of the pipes headed towards the east. And you can't absolutely discern from the aerial image, but I believe that -- I believe you can make out an east/west linear line

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going from the northern edge of the pool on down towards the fields. And we know from the piping that at a minimum they were piping water out this spring, that there possibly could have been some ditch water out also.

Q. Okay. Have you identified any reported measurements of flow from this spring?

A. No.

Q. Okay. We know it was there because the aerial shows it was there, but nobody ever measured it?

A. Not to my knowledge.

Q. Okay. With your understanding of the spring flow system and with the evidence that we have from the aerial and from the photograph that there was actual irrigation at the infrastructure there, what is your general estimate of how much water flows historically from the Shipley Spring Number 2?

A. I've made a -- just a very general and I think fairly conservative estimate that this spring may have produced about one-half CFS -- 0.5 CFS. And I base that based on the size of the pipes coming out of the collection culvert there and I think that's pretty conservative.

Q. Okay. So you used the size of the pipe and they wouldn't have put a pipe in that was smaller than what they needed to irrigate from?

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A. Yes.

Q. Okay. All right. We're getting down. We got one more to go.

Let's go to -- talk about Eva Spring. Are you familiar with Eva Spring?

THE COURT: Before we talk about Eva Spring let's take a break.

MR. RIGDON: That's great.

THE COURT: Time for a recess. Let's take about 10 to 15 minutes. Yes, Mr. Bolotin.

MR. BOLOTIN: (Indiscernible) just for the record, we have Micheline Fairbanks, Deputy Administrator for the Division of Water Resources who has appeared, and also from the Attorney General's office we have senior deputy Dan McBell who is in my division at the AG's office, and they also will be helping and assisting with these cases and hearings throughout the course of the adjudication.

THE COURT: Okay. Thank you very much. I acknowledge their appearance and I acknowledge the great fish that Miss Fairbanks caught.

MR. BOLOTIN: Thank you, Your Honor.

Recess.

THE COURT: Court's in session. Please be seated, everyone. We're back on the record in this case. We

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have the witness on the witness stand under oath. We have counsel for the parties as well as the parties. You may continue with your direct, Mr. Rigdon.

MR. RIGDON: Thank you, Your Honor.

BY MR. RIGDON:

Q. And we're almost done here with Mr. Smith.

So, Mr. Smith, we're going to move on to Eva Spring now. Are you familiar with the Eva Spring?

A. Yes.

Q. Is it located on the Sadler Ranch proper?

A. No. Eva Spring was located on the Brown Ranch to the north -- about two miles to the north.

Q. Okay. So this is a completely different spring than the ones we were talking about on the Sadler Ranch?

A. Yes.

Q. And have you reviewed the final Order of Determination regarding this spring?

A. Yes.

Q. And can you describe this spring?

A. Well, this spring like the -- like the others on the west side of the valley, is situated near the toe of the alluvial fan and west of the playa. So it's -- if you travel just north to south you have these springs that are appearing

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and emerging all the way from Sulphur Ranch Spring to the very south end of the playa and up to and ending at about Eva Spring to the north.

Q. And were there reported measurements on this spring?

A. There are.

Q. Okay. And were any of those pre-1950?

A. Pre-1950.

Q. Pre-1950?

A. Yes. Yes. They're actually in the -- again, the USGS publication of 1937 by Stearns, Stearns and Waring, this spring is listed there with a discharge measurement. I will note that the spring, however, is not called Eva Spring, it's called Serie Spring; however, the section, township, range matches correctly to be Eva Spring.

Q. Is that the only pre-1950 report of spring flow?

A. The only one I'm recalling.

Q. Okay. Was there -- did Harrill do a measurement of this spring in 1965 or whatever?

A. Yes.

Q. And what did he -- Harrill estimate or measure the flow of the spring to be?

A. Let's turn to his table, if we can, please.

Q. Okay. Yeah, so that would be in Exhibit 449 and

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the table's on page 31.

A. And again I think this is a case where there's been some differences in names -- naming of the spring at the time because I believe this is the Serie Ranch Spring is Eva Spring.

Q. Okay. And like the Indian Camp Spring that was listed as unnamed here, the location here matches the location of the Eva Spring?

A. That's correct.

Q. And what is the reported measurement on that?

A. 0.58 CFS.

Q. Okay. So we have two reported spring flow measurements for the Eva Spring; correct?

A. That's correct.

Q. And --

THE COURT: What was the USGS reported measurement?

MR. RIGDON: I should have asked you that.

BY MR. RIGDON:

Q. What was the USGS reported measurement?

A. The Stearns, Stearns and Waring 1937 reports the spring discharge at 300 gallons a minute which equates to 0.67 CFS.

THE COURT: Thank you.

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BY MR. RIGDON:

Q. And what conclusions have you drawn after investigating this and knowing everything about the flow systems here with regards to what the likely pre-1905 flow of the spring was?

A. Yes. I would, I would utilize the Stearns, Stearns and Waring 1937 value as being the nearest to a 1905 -- pre-1905 discharge rate. By the time Harrill was making measurements there were wells on the Brown Ranch.

The first well was drilled in 1960 so there was likely some effects of pumping that influenced his discharge measurement of 0.58. So I believe the 0.67 CFS discharge rate reported by Stearns, Stearns and Waring in 1937 is the best available estimate we have.

Q. Okay. And is that in fact the -- the estimate that the State Engineer used in his Order of Determination?

A. I believe that's true.

Q. All right. So you don't disagree with the State Engineer on that point?

A. I do not.

Q. Just going back real quick to Big Shipley Spring before we finish up there.

During the break, did you have a chance to remember whether the Nickerson -- you testified about the

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Nickerson affidavit at the 2019 hearing?
A. It is coming back to me a bit. I apologize for the memory lapse. But yes, that was discussed in the 2019 hearing. And that was not included in my professional report, my Exhibit at that hearing, because we did not have the information at the time I issued that report. But we did have it before the hearing and there was discussion on that issue at the hearing.
Q. Okay. So the State Engineer did know about the existence of the Nickerson affidavit?
A. Yes.
Q. All right.
MR. RIGDON: That's it for direct, Your Honor.
THE COURT: Cross-examination, Ms. Peterson.
MS. PETERSON: Thank you, Your Honor.
CROSS-EXAMINATION
BY MS. PETERSON:
Q. Mr. Smith, I'm Karen Peterson representing Eureka County. So directing your attention to there was testimony you had about measurements versus visual -- visual observations of flow. Do you recall that testimony?
A. Yes.
Q. And would you agree that I would say probably in all the instances a measurement would be better than a visual

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observation and a basis to report discharge? Would you agree with that?
A. No, I do not.
Q. Okay. Explain.
A. Yeah, again it really depends on the experience of the individual. When we go out and make stream flow measurements, there's different qualities that we assign to that measurement: good, fair, poor. And this is standard U.S. Geological Survey methods, standard methods.
So we do end up in circumstances where we are making a physical measurement, but we are doing that at a fair or poor rating that expands the error bar for that rating, and at that point, an experienced eye could be just as accurate as your field measurement.
Now, if you're in a condition to where you have high quality conditions, so that's stream count, channel conditions, flow conditions, very uniform, unobstructed, on and on, then at that point I would say your manual physical measurement would definitely be higher than your visual -- your visual estimate of flow. The potential accuracy would be higher.
But even -- I should qualify -- even in a very good circumstance there's still an error bar to the measurement methods. There's a lot of detailed assumptions

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about how we make the measurements and whether we're representing average flow in each little transect, on and on, so there's always error.
An experienced eye though can really close the gap on -- between the two.
Q. You would -- you will agree with me that Payne when he went out in 1912, he wanted to take a measurement, but he couldn't because the -- there was a breach in the dam; is that correct?
A. That's what he states.
Q. And what does that mean when there's a breach in the dam?
A. I don't know the ground conditions he was observing, but what it suggests to me is that flow was not constrained to just a nice defined channel to where he could go in and take a current velocity measurement.
Q. And, in fact, his notes indicate that -- this is the lawyer, sorry, not your profession -- but water was running -- my interpretation, you can tell me if you disagree or agree, water was running kind of all over out from the source; would you agree with that?
A. I -- that's my recollection, and I will state that it's very difficult to make visual estimates in that condition.

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Q. And then Nickerson, who I guess he was before, he was in the March of 1912, sorry, he also wanted to take a measurement; correct?
A. I don't know that he wanted to. He stated that he did not make a measurement because of the conditions of the channel. So I assume that yes, had he had channel conditions sufficient to make a measurement, he would have.
Q. And I guess --
THE COURT: What was -- I'm sorry, I want to come back to that question. What was the date that you referenced with Nickerson when he didn't take the measurement again?
MS. PETERSON: It was March 1912.
THE COURT: Thank you.
MS. PETERSON: And we'll go to his notes, Your Honor.
THE COURT: Thank you.
BY MS. PETERSON:
Q. Before we do that though, could you give me your definition of beneficial use?
MR. RIGDON: Objection, outside the scope of direct.
THE COURT: I will allow it. Overruled.
THE WITNESS: My definition of beneficial use.
BY MS. PETERSON:

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Q. Of water, uh-huh.
A. My definition might be a little broader than strictly water rights, but any type of -- any type of dependence on use or benefit from a water source I would define as beneficial use.
And I'm taking that in context -- the reason I'm hesitating here a bit, Ms. Peterson, is, you know, in some states you have beneficial uses for in-stream flows for environmental issues, for environmental purposes. That falls under my category of potential beneficial use.
I believe here in Nevada, we really define it as beneficial use by humanity or humankind, even though we do issue permits for wildlife purposes. But I think here in Nevada beneficial use is -- I associate with some type of a benefit to humanity of some manner from the water.
Q. The use of the water?
A. Yeah.
Q. So I want to direct your attention to your report, your first report that -- that you prepared. And your counsel briefly directed you to it, Exhibit 184.
A. (Complies).
Q. And on page 2.
MR. RIGDON: Page what? Page what?
MS. PETERSON: Two.

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MR. RIGDON: Two.
BY MS. PETERSON:
Q. Exhibit 184. It's page 2 of your report on the lower right-hand side, but it's Bates stamped Sadler 4697. Do you see that?
A. Yes.
Q. Okay. And number 15 there you're talking about measurements from Shipley Hot Spring; correct?
A. Yes.
Q. And could you read that second sentence of number 15?
A. "Discharge from the Shipley Hot Spring pond may differ depending on whether the northern or southern diversions are being used, how measurements are made, and how the pond level and diversion outflows are being managed."
Q. And when you're talking about discharge, that's flow; correct?
A. That's correct.
Q. And would that statement hold true for pre-1905 discharge from Shipley Hot Springs?
A. I presume it would. And the reason I presume it would is at that time, at least at the time that Nickerson was there, there was four different diversions out; assuming that they could have had a little bit different elevations out,

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yes, and assuming that there was some type of control so that you could board up one or two diversions and push water out a different diversion.
So in that context, yes, I think that applies to that circumstance all the way to when it was developed.
Q. And from my layman's understanding of what you're saying here, are you saying that the flow measurements may change for Shipley Hot Springs depending on how many diversions are being used at the time, because you talk about the southern or the northern diversion, how -- how a measurement would be made, and then what the pond level was, and you say diversion outflows are being managed; is that correct?
A. Yes.
Q. And so all those factors and variables could affect the measurements that we've talked about today from Shipley Hot Spring or the reported discharges that we've heard about today from Shipley Hot Springs; is that correct?
A. I would say this is more relevant to an instantaneous measurement that one might be making at that snapshot in time.
Q. Would that include a visual observation?
A. Yes, visual observation is at one distinct point in time.

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Q. So depending on what was happening in the field, right, or right here at Shipley Hot Spring, the pond area where the diversion is, that may affect what the flow measurement was that, let's say, Payne saw or Nickerson saw or any of the other visual observations or actual measurements; is that correct?
A. Yes.
Q. And we don't have any information in the record that all the measurements in this case that you've listed out in your report were all taken under the exact same conditions; is that correct?
A. Yes. In fact, I might go further and say that I believe they were not taken under the same conditions as far as the pre-1950 measurements versus the 1965 and later measurements. I do believe there were physical changes to the pond so it could not have been made under equal sets of conditions.
Q. And in this report, this was submitted to the State Engineer and it was for the mitigation hearing, but at that time, based upon my understanding, is based upon the USGS 1937 report, you were recommending 11 to 12 CFS as the flow for Big Shipley Hot Springs; is that correct?
A. I believe so. I just want to confirm in my document, please.

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Q. Right. If you go to page 16?
A. (Complies). Yes, that is correct.
Q. And now, you are -- because of Nickerson, you found the Nickerson affidavit; correct?
A. Yes.
Q. And you've --
A. We did not have that available at the time of this report.
Q. Yes, yes. I understand that. And if you could go to the Nickerson affidavit. It's Exhibit 105.
A. (Complies).
THE COURT: The Exhibit number you were referring to again, Miss Peterson?
MS. PETERSON: Exhibit 105.
THE COURT: Thank you.
THE WITNESS: Yes, I'm there.
MS. PETERSON: Okay. I was waiting for the Judge.
THE COURT: I am too.
MS. PETERSON: Good.
BY MS. PETERSON:
Q. So on the first page there of the affidavit, you -- I know in your written report you recited the information about the 500 to 600 miner's inches and that

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40 miner's inches was equal to 1 CFS; correct?
A. Yes, that is correct. And I -- I think I should correct my earlier testimony. I believe I said 400 to 500 miner's inches instead of 500 to 600.
Q. And then you equated that to 12 to 15 CFS; is that correct?
A. 12.5 to 15 CFS.
Q. So if your report -- your written report says 12 CFS you're correcting that to 12.5 right now?
A. Which report is that?
Q. It's your -- the one in front of the State Engineer. Let's see. It's Exhibit 185, I believe.
Okay. You know what, I apologize. You do say 12.5 CFS. Sorry about that. On page 1.
So after the information about the miner's inches, and this part wasn't in your report, you alluded to it today in your testimony, but Mr. Nickerson says "but this is only an estimate based upon personal observation." It's really hard for me to read this. "As it was not possible to make accurate measurements under existing conditions."
Do you see that?
A. Yes.
Q. And would you agree that seems to indicate that he did want to take a measurement because he thought that that

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would be more accurate?
A. I think we could assume that.
Q. And then directing your attention to page 2. Have you read this whole affidavit?
A. Yes.
Q. Directing your attention to page 2, the first three, four paragraphs. He's -- he was hired by Romano; is that correct?
A. That's correct.
Q. And my interpretation of what he is saying here in the top two thirds of this affidavit is that water right now is not getting to Romano so that Romano can irrigate his fields; is that correct?
A. My understanding is Romano didn't feel like he was getting magnitude, the quantity of water he was entitled to irrigate with.
Q. And you've already testified that Nickerson noted that at the time there were four ditches; is that correct?
A. Yes.
Q. And would -- I know your reference in your earlier report was that there were two diversions that may impact the measurements that were taken from Big Shipley Hot Springs; do you recall that testimony?
A. That would be in current conditions.

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Q. Right. And if there were four outlets, would that possibly cause even more variation in measurements with regard to flow from Shipley Hot Springs?
A. We don't know that. We don't know the elevation of the outlets.
Q. Okay. Or I guess how the water was managed?
A. Yes, that's correct. We don't know the elevations of those outlets, and if they were all equal elevation and equal deliveries out, then less -- less variance would be associated.
Q. All right. And then directing your attention to the second full paragraph from the bottom, it says "that on said March 3rd, 1912"; do you see that?
A. Yes.
Q. Could you read that paragraph into the record?
A. "That on said March 3rd, 1912, there was considerable water flowing in ditches A and C, nearly all of which flowed in a northerly and northeasterly direction across the said Sadler Ranch and onto vacant government land."
Q. And could that be the playa?
A. It could be, or it could be land around the periphery of the ranch.
Q. Vacant?
A. It says vacant.

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Q. And then -- could you read the next paragraph?
A. "That it was evident that a very large portion of the total flow of said big spring was flowing in ditch D in a northeasterly direction across the said" -- I'm having difficulties reading this, sorry. "Across the said Sadler Ranch."
THE COURT: Mr. Smith, if you're seeing it we have magnifying glass that would help --
THE WITNESS: It's the document. Thank you.
THE COURT: I have one.
THE WITNESS: See continue -- that helps. Let me continue on here. "Across the said Sadler Ranch and out onto a large alkalide flat where a large lake has been formed thereby."
BY MS. PETERSON:
Q. And would that possibly indicate that the water was flowing out onto the playa?
A. It's possible. It also could be that it was flowing out to one of the terminal low depth basins that Mr. Buschelman described to try to store and manage water. It's not -- not precisely clear.
Q. So would you agree with me that in 1912 on March 3rd Mr. Nickerson saw out of three out of four ditches that were being used, that nearly all or a very large portion

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of the total flow was not being used on Sadler Ranch and was going out onto vacant government land or a large alkalide flat where a large lake had been formed thereby?
MR. RIGDON: Objection. It doesn't say not being used for Sadler Ranch's beneficial use. That's a misreading of the document. Nowhere in the document does he said Sadler Ranch is not using the water.
MS. PETERSON: I'll rephrase.
THE COURT: Go ahead.
BY MS. PETERSON:
Q. Do you agree with me, Mr. Smith, that these two paragraphs indicate that on March 3rd, 1912, three out of four ditches that were on the Sadler Ranch, these three ditches were being used to convey water, and Mr. Nickerson's affidavit indicates that the water flowed across the Sadler Ranch and onto vacant government land in the first paragraph.
And then on that second paragraph you read, across the said Sadler Ranch and out onto a large alkalide flat where a large lake had been formed thereby?
A. That was what Mr. Nickerson observed on that day.
Q. And did he indicate in those two opinions that any of the water in those three ditches was being used on the Sadler Ranch?
A. I don't know if I could answer that conclusively.

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Again, I don't know if -- I just I don't know. I don't know.
Q. And then I wanted to direct your attention to this Exhibit.
MS. PETERSON: It is -- Your Honor, it's from Exhibit 173 that's been introduced into evidence here and it's one page. This was presented by Sadler -- I'll make a representation it was presented by Sadler at the State Engineer's hearing and it was one of Mr. Smith's exhibits. I'll show it to you.
MR. RIGDON: Which Exhibit?
THE COURT: It's part of Exhibit 173?
MS. PETERSON: Yes.
MR. RIGDON: It's Exhibit 173?
MS. PETERSON: Yes. It's part of Exhibit 173.
MR. RIGDON: Oh, it's part.
MS. PETERSON: Yeah, he had a lot of, like, demonstrative information --
MR. RIGDON: Oh, okay.
MS. PETERSON: -- that he compiled and he put into Exhibit 173.
MR. RIGDON: Okay.
MS. PETERSON: May I approach, Your Honor?
THE COURT: You may.
MS. PETERSON: I'd like to have this marked as

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the next Exhibit in order for Eureka County, which I believe would be Exhibit EEE.
THE COURT: What was your Exhibit letter?
MS. PETERSON: EEE.
THE COURT: Three E's. Any objection to Exhibit triple E?
MR. RIGDON: Well, I don't have any objection to the Exhibit. I'm waiting for a question because I believe we might be heading well outside the scope of the direct and well outside -- we called Mr. Dwight -- Mr. Smith to talk about flow rates at springs, not beneficial use of water. That was handled by Mr. Buschelman. And all we are asking on direct is his conclusion regarding the spring flow.
So subject to, you know, seeing what her question is, I'm -- I am just raising my concern.
THE COURT: Very well.
Go ahead, Miss Peterson.
MS. PETERSON: Okay.
BY MS. PETERSON:
Q. Do you have what's been marked as Exhibit EEE in front of you, Mr. Smith?
A. I do not.
MR. RIGDON: There's a --
THE WITNESS: Yes.

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BY MS. PETERSON:
Q. Do you recognize that document?
A. I do believe I recognize this document as a letter from the -- it's the first page of a letter from the State Engineer; is that correct?
Q. That's correct.
MS. PETERSON: Well, I move -- well, I guess it's already in. Sorry.
BY MS. PETERSON:
Q. And it's a letter dated September 23rd, 1913?
A. That's correct.
Q. And it's in regard to application 2679?
A. Yes, I can't -- just for clarification, what date did you say? What month?
Q. I thought it said September 23rd, 1913?
THE COURT: That's what it looks like.
THE WITNESS: I couldn't quite tell if it was '13 or '12. Yes, very good. Yes, 1913.
BY MS. PETERSON:
Q. Okay. And it's regarding at application 2679?
A. Yes.
Q. Big Shipley Spring?
A. Yes.
Q. And there's a red -- a red box in the middle of

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that document that I believe you all put on this document. Is that your recollection?
A. I don't recall, but that -- the red box on a document.
Q. All right. And this is a letter that the State Engineer sent to Mr. H. J. Sadler who's the vice president of Huntington and Diamond Valley Land and Stock Company; correct?
A. Yes.
Q. And in that application Huntington and Diamond Valley Land and Stock Company had applied to appropriate 45 CFS of water from Big Shipley Spring; is that correct?
A. Yes.
Q. And the State Engineer eventually denied that application; do you recall that?
A. Yes, I recall that.
Q. And in this letter here to Mr. Sadler, the State Engineer is indicating, as in the red box, that Big Shipley Spring is approximately 7 to 8 cubic feet per second -- flows in approximately 7 to 8 cubic feet per second; is that correct?
A. That's what the letter states.
Q. And did you include this letter and the information contained on this letter in your plot that you included in your report?

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A. I did not, and I do recall some discussion in prior hearings on this. The -- the only records available at the State Engineer's office are the record of Mr. Payne which we've discussed from November 18th of 1912.
So it's my assessment that this letter was drafted based on Mr. Payne's observation. I think there's been an erosion, possibly a bit of mischaracterization of what Mr. Payne actually stated in his field assessment because he stated 8 CFS or a little more.
And you'll see in various documents where all of a sudden that's been phrased at approximately eight CFS. That's not what Mr. Payne said.
And then you'll see in this letter from the State Engineer's office, he's saying 7 or 8 cubic feet per second but that's not consistent with Mr. Payne's observation either.
So and we did review the records on the file with the State Engineer's office. We found only one record for Big Shipley Hot Spring, being Mr. Payne, that predated this letter.
So similar to the other documents where once we understood that Nickerson was the source there, we have several documents that perpetuated then Nickerson's estimate. I view this letter as perpetuating Mr. Payne's observation but in a not so accurate manner.

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Q. Do you have any information or knowledge that there was not another either visual observation or measurement made with regard to Big Shipley Hot Springs as reflected in this letter?
A. No records at the Division of Water Resources that we have been able to find.
Q. But you don't have any evidence that this representation and this letter is based on Payne's observations; do you?
A. It doesn't say that, but since it's coming out of the same office and the only record is Payne's, I don't see how it could be based on anything else.
It is possible that there's some other records that just aren't recorded and aren't referenced in the letter, always that possibility, but it doesn't seem like the logical conclusion.
Q. And this letter was approximately a year after Payne's visit in November of 1912?
A. That's right. Ten months.
Q. And then directing your attention to Exhibit 180, and it's actually page 180?
A. (Complies).
MR. RIGDON: Which page, excuse me?
MS. PETERSON: 180.

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MR. RIGDON: Exhibit 180, right?
MS. PETERSON: And page 180.
MR. RIGDON: Oh, page 180. Oh, I'm sorry.
MS. PETERSON: Of Exhibit 180.
MR. RIGDON: Yeah, okay.
BY MS. PETERSON:
Q. You had some testimony in your direct examination about that first full paragraph; do you recall that?
A. Yes.
Q. And your testimony was that in the State Engineer's Order of Determination -- this is the Order of Determination -- there was no other reference in the Order of Determination to any other measurements of Big Shipley Spring other than Harrill's measurements; do you recall that?
A. Yes, I guess that should also include Payne's observation also.
Q. Right. And what does the next sentence after Harrill's reported discharge, what does that state?
A. Yes. Exhibits presented in the administrative hearing for permit.
Q. Wait, wait, wait. We're not on the same page.
A. Oh, I'm sorry.
Q. Oh, okay. I'm sorry. The second sentence of that paragraph.

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A. Eureka Moly, LLC measured the spring and reported measurements from 2008 through 2016 with measurements ranking from zero to 3.72 CFS.
Q. Okay. So that's a reference to a measurement of Big Shipley Hot Springs; is that correct?
A. Yes. Recent measurements.
Q. And then what's the next sentence say?
A. "Exhibits presented in the administrative hearing for permit 82668 concerning spring flow, diversion rates and crop duties were voluminous, complete, and resulted in State Engineer ruling 6371."
Q. And that's the administrative hearing you participated in; is that correct?
A. Yes, it is.
Q. And your report that we just looked at, Exhibit -- your 2003 report. 2013 report, sorry. Exhibit 184, that was presented to the Court State Engineer in that proceeding; is that correct?
A. Yes, it is.
Q. And if you look at page 1 of that report, your report and page 2?
A. Could you refer me back to the Exhibit number.
Q. Yes, it's Exhibit 184. Numbers 1 through, like, around 13 indicate all the measurement information that -- or

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reported discharge information that you had submitted to the State Engineer in that proceeding; is that correct?
A. Yes.
Q. So would you agree with me that the State Engineer's Order of Determination indicates more evidence regarding flow measurements of Big Shipley Spring other than Harrill's measurements that were taken in 1966?
A. The basis for his determination on the flow rate relies pretty much exclusively on Harrill's 1965 and 1966 measurements. He does in that one sentence acknowledge the prior administrative hearing, but doesn't reference any of the information. I should qualify that Nickerson wasn't available in the 2013 so we did haven't that document.
But other than that, no, the basis for his determination was solely on Harrill; that's how he computed the 7.02 CFS flow rate.
Q. Right. But he does reference all the evidence that Sadler Ranch submitted in the 2013 proceeding regarding the flow rate of Shipley Hot Springs; correct?
A. Mentions it. Gives it no weight.
Q. Well, we don't know what weight he gave it, right, because he doesn't say here what weight he gave it; would you agree with that?
A. There's nothing in the calculation that

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determines that any of the values were factored into his determination. That's zero weight in the equation, in the calculation.
Q. That's your perception?
A. That's the calculation. He didn't average in, he didn't, you know, do any -- it's not in the arithmetic.
Now, certainly they're aware of this information, must have considered it, but it's not integrated at all into the determination.
Q. Did you discuss that evidence in ruling 6371?
A. I'm sorry, can you clarify?
MR. RIGDON: Did he discuss what evidence?
MS. PETERSON: Pardon?
MR. RIGDON: What evidence? That was vague.
BY MS. PETERSON:
Q. Did he discuss in ruling 6371 all the evidence related to the flow of Shipley Hot Spring?
A. As I recall, again, and I may have to refresh on the ruling, but I don't recall that he actually did discuss all the evidence presented in that ruling. That ruling had a lot of other variables and factors at stake which there was a lot of discussion on, but I -- again, that's my recollection. It's been a while since I read that ruling.
Q. If I could direct your attention to Exhibit 449.

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A. (Complies).
Q. Are you there?
A. Yes. Harrill's 1968 report?
Q. Yes. So you had discussed on the last full paragraph your -- the statement here about the 16-year pumping period, 1950 to 1965; do you recall that testimony?
A. Yes.
Q. But could you read the second sentence of paragraph above that starting with 1965.
A. Yes. In 1965, the total net pumpage was 12,000 acre-feet which is less than half the estimated perennial yield of 30,000 acre-feet for Diamond Valley.
Q. So at least in 1965, there had been no over-pumping of Diamond Valley; is that correct?
A. Yes, the pumping was not in excess of the perennial yield.
Q. And, in fact, was less than half of the perennial yield; is that correct?
A. That's true.
Q. And there has been testimony by you that you believe Payne only spent one hour at Sadler Ranch in 1912; do you recall that testimony?
A. Plus or minus. Would not have had a great deal of time to spend at the ranch, that's correct.

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Q. Do you know how much time he spent at the ranch?
A. No. All we know is it a field report from one day that visited six individual ranches over a 20-mile stretch. So we don't know precisely, but we do know that, as Mr. Buschelman testified, there's about a nine-hour window of daylight.
So do the arithmetic there. It's just impossible -- I'll put it this way: it's impossible that he spent more than a couple hours at the Sadler Ranch and have visited those other ranches on the same trip. It's impossible.
Q. And you know he talked to Mr. Sadler when he was at the ranch; correct? Based upon the notes?
A. Yes, he did mention speaking to Mr. Sadler about the reported area being cultivated or on the ranch.
Q. And Mr. Sadler didn't know how much acreage was cultivated on his ranch; would you agree?
A. I don't know that.
MR. RIGDON: Objection, the document speaks for itself and I don't believe the document says he didn't know. The document actually provides evidence and estimates of how much was being used.
MS. PETERSON: Well, let's go to the notes.
THE COURT: Go ahead. Go ahead, Miss Peterson.

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MS. PETERSON: It's your Exhibit 50.
BY MS. PETERSON:
Q. And at the bottom of the first page of the notes Mr. Payne is indicating where Sadler Ranch is; correct?
A. Yes.
Q. And that he intended to take an accurate measurement of the source but was unable to do so because there was a break in the dam at the reservoir; right?
A. Correct.
Q. And the water was not confined to any one channel?
A. Correct.
Q. And he goes on to indicate how large the reservoir was; correct? About two acres?
MR. RIGDON: About what?
THE WITNESS: Yes.
BY MS. PETERSON:
Q. And then he indicates that the acreage of land under cultivation from the source is hard to determine; do you see that?
A. Yes.
Q. And Mr. Edgar Sadler informed him that there was nearly 3,000 acres of land in the ranch; do you see that?
A. Yes.

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Q. And reported about 250 acres of which was an alfalfa grain and garden; right?
A. Correct.
Q. The rest being meadowland. Do you see that?
A. Yes.
Q. Oh, I'm sorry, I didn't hear your answer. I apologize. And then part of which is cut for hay and the remainder having used for pasture -- being used for pasture?
A. Correct.
Q. Okay. And then was Mr. -- how many tons of hay does Mr. Sadler put up?
A. Let me just read it for a sec.
Q. Okay.
A. Sadler puts up several hundred tons of hay, but is unable to tell how many acres is cut.
Q. And then the rest of the entry regarding Sadler Ranch goes into the dispute that's going on between Mr. Sadler and Mr. Romano; is that correct?
A. Yes.
Q. So he appears to have spent some time talking to Mr. Sadler?
A. He appears to have had a conversation with him, yes.
Q. But there's no indication in the notes of how

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long he spent at Sadler Ranch; is that correct?
A. There's not, but again it's impossible that he spent very much time there given the ground he covered in the day. But he obviously had a conversation with Mr. Sadler and he's conveying that information that he gleaned from that conversation in his field notes.
Q. I wanted to direct your attention to your testimony with regard to the dam and the dam being raised. Do you recall that testimony?
A. Yes.
Q. And I believe in your report it indicates that you don't know when that was done; is that correct?
A. Yes, we don't know precisely. And I should qualify that it may not have been that the dam was raised. It could have been that the outlets were changed and the elevations of the outlets were raised.
We know that there's some outlet changes because somehow we got from four to two. In the time frame between Mr. Nickerson in 1912 to when Mr. Harrill was beginning to make measurements in 1965, he was making measurements from only two active diversions out of the pond.
Q. Okay. So this information that you're presenting about the changes in the configuration of the pond and/or the dam, that's in your report on page -- Exhibit 186; is that

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correct?
A. Yes.
Q. And you drew a schematic that's on the last page of that Exhibit; is that correct?
A. That's correct.
Q. And is there any indication in this schematic or in your report of any changing of the configuration or the elevation of the outlets?
A. Yes, on this conceptual or schematic drawing you'll see I have a lower outflow or a larger outflow, so that can be related the elevation of the outlets.
Q. Okay. But that -- that was related to the changes change in the elevation of the dam; is that correct? That would obviously change the outlets?
A. The elevation of the dam actually would not have changed anything. You could have built a 50-foot dam there but if your outlets are the same elevation, it wouldn't have changed anything.
So really it's more important to understand it's about the outlets from the pond changing elevation. That's going to -- which, you know, you do just by management by putting boards in to board off some outflows or, you know, raise and operate reservoirs to release out of storage.
So it's really more about the outlet elevation

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than it is the dam height itself.
Q. But when you testified before about the picture, the picture that you showed -- well, I guess it's in your report.
It's on page 3. You zoomed in on photograph A on the bottom there?
A. Yes.
THE COURT: Which Exhibit again?
MS. PETERSON: It's Exhibit 186.
THE COURT: Okay. Thanks. On page 3?
MS. PETERSON: Page 3.
THE COURT: Thank you.
BY MS. PETERSON:
Q. And you zoomed in on the pond; right?
A. Yes, in photograph A.
Q. Right. And all your testimony earlier today was about the dam structure; correct?
A. So it's really about -- in this part of my testimony it was about the stage or the elevation of the pond water. It's about the elevation of that pool. Not necessarily elevation of dam, but the elevation of the pool was very much controlled by the elevation of the outlets.
Q. I --
A. But the dam structure, if this helps with

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clarification, I referred to the older dam structure that's submerged today, it still exists, but there's remnants of an older dam structure which we don't have any historical records on. It's in the interior of that pond. I'm using that for a reference point to say that today we know that that is submerged. We also know the land that's exposed on the east side of the pond is submerged today.
So the pond has been operating, the best I can tell, from 1965 forward at pond levels that are higher in elevation than when this picture was taken in circa 1920.
Q. And how do you know it was 1965 forward that the --
A. Because of --
Q. -- change was made?
A. Yes, good question. It's because of Mr. Harrill's field notes. So I've not only looked at Mr. Harrill's report, at the USGS you can access the field notes when he actually went out and made those measurements. On those measurements you will see that he is measuring two outlets from the pond.
That's actually what we have been doing when we started doing that also in 2008. Two primary outlets, that's all there are from the pond is two. Harrill's notes are indicating the exact same thing.

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But you turn the clock back to Nickerson, there wasn't just two; there were four outlets. So something physically changed with the outlets from the ponds between Nickerson and Harrill time frames, 1912 to 1965.

Q. And you -- I believe you indicate in your testimony in your report you don't know why the change was made?

A. No, we don't. There's no records of exactly when or why that was -- that was done.

Q. So did you investigate that at all, why that was done?

A. I have my -- I have my theories about why it could have been done. I will say that no renter is going to put effort in and do work to worsen his ability to irrigate land.

So some type of modification was made to help him manage water on the ranch; he wouldn't have done it otherwise. So at some point he was able to better manage the water, get the water deliveries into his ditches and onto the lands that he was trying to irrigate.

Now, why did he make those -- why did he feel that was necessary? Probably had to do with the water management problem he was having.

Q. Did you -- did you talk to Witts Bailey about why

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that happened?

A. I've never talked to him, no.

Q. Okay.

A. By the way, we're talking about changes that were a hundred years ago potentially, because we know in 1920 it looks like conditions are lower. 1912 matches -- we don't know when this happened.

It appears in the 1946 aerial photography, which -- the resolution which we have questioned. It is what it is. It's what we have. It appears in the 1946 photography that that land mass may still be showing up. I can't conclude that entirely. But we know that by 1965 Harrill is reporting the conditions that are consistent with ground conditions today.

Q. So if you don't know when it occurred and it could have occurred in the last 100 years, it could have possibly according to you impacted all the measurements in the last 100 years; is that correct?

A. Not all the measurements. All the discharge.

Q. All the discharge --

A. The discharge quantity from the pond, yes, could have been affected post-1920. Whenever this happened, all the discharge from the pond could have and I believe did affect the discharge out of the pond.

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Q. And you testified earlier that you believe that your theory with this dam structure closed the gap on the measurements from, from I guess I wrote down post 1905 measurements to the 1960's; was that your testimony?

A. Yes. If this is factored into consideration, this physical mechanics of spring discharge being affected by pool height, all of a sudden all these measurements tend to -- tend to make more sense, I'll put it that way.

There's not as big -- well, you can now explain physically the disparity between 1965 measurements and measurements that we have from -- and observations from the period of 1937 or '40s, from the period that we have the earlier accounts or information on springs. So 1940s and prior.

If you understand that the dam and the pool level changed between those two historical time periods, that explains why in 1965 you go out and you're measuring 7 CFS when 50 years ago they might have been measuring 12 or observing 12 as an average.

So yes, this -- this is a physical mechanism to explain that.

Q. So based upon your testimony, that -- that theory doesn't explain the difference between Nickerson's visual of 12.5 to 15 CFS versus Payne's visual of 8 CFS or a little more

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in 1912; does it?

A. It probably doesn't, but again we have no reference on -- as you mentioned, that when Payne indicated the dam was breached, there's no mention that the dam was actually breached by Nickerson who was there in March prior, but without accurately knowing what the pool stage was we don't know for certain. It -- we just don't know for certain. I think the issue back in those two 1912 time frame measurements is really just visual estimating error.

Q. Well, or a difference in observed flows based upon what was going on in the pond at the time; right? Or the discharge at the time based upon your factors that you listed in your first report; is that correct?

A. Well, there could be some physical explanation also, but again I attribute it more to observation error, error in making a visual estimate of discharge. But there could have been some physical issues, changes also that explain some of the difference, it's possible.

Q. Right. All the information, I believe you testified that this would still apply in pre-1905. The discharge may differ depending upon whether -- well, this says the northern or southern diversions were being used, how measurements are made, how the pond level and diversion outflows are being managed; correct?

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A. Yes.
Q. And that could affect the difference between Payne and Nickerson; is that correct?
A. Well, again I have trouble going that far with it, Miss Peterson. And the reason is is because -- but we don't -- we don't understand the ground conditions well enough.

A breach down, was it just that the dam was overtopping and the pond level was still high but it was just overtopping, or was it a deep cut breach. We just don't understand that. If it was just overtopping, yeah, the pond could have been higher, and the discharge is less than when Nickerson was out and the gates were all open and all the water was discharging out the pond level was lower. That could be an explanation.

If we had more detail on what Mr. Payne observed we could reconstruct that better, but he just didn't provide any detail to work with.
Q. And then directing your attention to Exhibit 449?
A. Yes.
Q. And page 31?
A. Yes.
Q. And those are some measurements that were made for Shipley Hot Springs and you testified that in a year

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Shipley Hot Springs had decreased 1 CFS; do you recall that testimony?
A. Yes.
Q. And then you also noted that Indian Camp was the unnamed -- the spring designated "unnamed" on that chart in the middle; is that correct?
A. Yes.
Q. And Indian Camp, just to get the Judge oriented, Indian Camp is closer to southern Diamond Valley, the farming district; is that correct?
A. I believe it's about two miles south of Shipley Hot Spring. We probably have some exhibits to where that's pointed out.
Q. But it's closer to pumping -- any underground pumping that would have commenced in southern Diamond Valley; is that correct?
A. Yes.
Q. And you will note that between '65 and '66 the CFS for Indian Camp actually increased in that time period; do you see that?
A. Yes. Between December to April -- December of '65 to April of '66 there was an increase.
Q. About 24 percent we calculate?
A. Yes. Yes.

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Q. And that was also after the trench had been excavated as I believe either Mr. Harrill or Mr. Eakin reported?
A. Yes.
Q. Is that correct?
A. That's correct.
Q. Now, you talked about the General Moly groundwater flow model that you had developed for your work here in Diamond Valley; do you recall that testimony?
A. I mentioned that I was the author of that and that was in approximately 2010.
Q. And did you use -- in your modeling did you input values for Big Shipley Spring into your model?
A. Yes. My model time period started -- going off of memory -- started approximately 1964 forward. So yes, we used Harrill's measurements here in the calibration of our flow model.
Q. And so you used -- based upon my reading of Table 4.1-2 of your model, that you used 6.02 CFS for the predevelopment flow for Big Shipley Spring in your model?
MR. RIGDON: Objection.
MS. PETERSON: Does that sound about right?
MR. RIGDON: Objection. Could we identify what document she's referring to, whether it's an Exhibit in the

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record or not.
MS. PETERSON: It's -- I don't believe the General Moly exhibit or the General Moly model is in the record here.
MR. RIGDON: Okay. Then I would object to her using it.
MS. PETERSON: This is impeachment, Your Honor. I could ask questions to impeach the witness as to his -- the veracity of his opinion regarding the flows of Shipley Hot Springs.
THE COURT: Let's introduce that into the record then.
MS. PETERSON: Okay. These are my notes. I can get the table -- I could definitely get the table and we can introduce that if that's what counsel wants. I'm just asking the witness if he remembers.

He remembers -- he did remember that he put the flows in.
MR. RIGDON: You can ask him what he remembers, but without the Exhibit in the record, or offering the Exhibit, the entire model Exhibit, I would object.
THE COURT: Go ahead and ask your question if he remembers.
MS. PETERSON: Okay.

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BY MS. PETERSON:
Q. Mr. Smith, do you remember putting values in for Big Shipley Spring into the groundwater model?
A. The model -- Big Shipley Spring is not input value, it's a calibration target.
So Big Shipley Spring is represented by what we call a drain in the model, and we try to calibrate that drain to discharge at a certain volume. So that -- now, keep in mind this was work that I did in the time frame of 2008 to 2010 so before I really had started to do a lot of work and research on specifically Shipley Hot Spring. We were starting to make physical measurements out there.
But our assumptions in the model for Diamond Valley is that there was a steady state condition, and I apologize, I can't remember the exact date, 1950, 1960, we had some type of time frame that correlated pretty well with when we started to get a lot of data for the valley, which was when the USGS was doing their studies and they really had in (indiscernible) '60s.
So from that point forward we have data to calibrate a model. The model doesn't run back to 1905, and quite honestly, back then we were just taking existing data without a lot of thought and using that for calibration targets.

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So where I have been subsequent to that though is we spent a lot of additional time looking at, discussing, thinking about Shipley Hot Spring. This level of research was not done for development of that numerical flow model.
Q. Was predevelopment flow for Big Shipley Springs simulated by the model at 6.02 CFS?
A. That might have been the value that was coming out. Now, keep in mind also we can never exactly match what our targets are, but that very well could be what was simulated in the model.
Q. And was the highest historic spring discharge measurement for Big Shipley Spring provided in your model report 8.62 CFS?
MR. RIGDON: Again, I object. If she wants to put the model evidence in correctly --
MS. PETERSON: I'm asking if he remembers.
MR. RIGDON: But reading off of her notes is not is putting evidence into the record. She's testifying, putting evidence that's not in the record and she doesn't even have the document here.
MS. PETERSON: Your Honor, I'm entitled to ask questions to impeach the witness.
THE COURT: The objection is overruled. I'm going to allow the question to be asked.

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MR. RIGDON: Okay.
BY MS. PETERSON:
Q. Was the highest historic spring discharge measurement for Big Shipley Spring provided in your model report 8.62 CFS?
A. That should have been data that was published by the USGS. So the highest flow from Shipley Hot Spring was record in the 1980s and it was up around 8.2 or 8.3 CFS in the 1880s -- 1980s, excuse me.
So when we're calibrating our model I put in all the data that's available to us over time. So that's all the available data from the USGS that was our data calibration source for the model. Plus our measurements that we did from 2008 forward. That's what's in the model to try to match when we're trying to calibrate the model.
So yeah, I do recall there were values, actual measurements from Shipley Spring at about 8.2 or 8.3 CFS made by the USGS in the 1980s. That would have been a calibration target for the model.
Q. And are you familiar with the USGS report that was prepared for Diamond Valley that came out in around 2013 or 2014?
A. Is that -- was that authored by Dave Berger?
Q. Yes, that was authored by David Berger.

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A. I'm familiar with that report. Now, I haven't read it for several years, but I read it when it came out.
Q. Do you recall --
MR. RIGDON: Your Honor, could I ask if this Exhibit is in the record?
MS. PETERSON: I believe this is in the record from the mitigation hearing.
MR. RIGDON: Okay. Could you give me the Exhibit number?
MS. PETERSON: Do you want me to do that right now?
MR. RIGDON: Sure.
MS. PETERSON: Your Honor, could I have a minute.
THE COURT: You may.
MS. PETERSON: Your Honor, I don't know how much time you want to spend on this, but I will try to find all -- well -- Your Honor, I can -- we believe that we put it into our hearing exhibits in front of the State Engineer on our objections to the Preliminary Order of Determination.
The index that I have in front of me from the State Engineer's office just gave files of everybody's -- just listed that there was a file with Eureka County's exhibits on it. So I don't have my computer so that I can open the file, you know what I mean, to get that number of our Exhibit, but I

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can come back, if you have want to give me some time to be able to do that or --

THE COURT: Here's the Court's ruling. If it's in the record you can question about it. If it's not in the record, the Court will not allow any testimony with respect to that document, the Court believes it could be reasonably anticipated as discovery in this case, provide it to the other side. I'm happy to take a 5 to 10-minute recess. I'm good on time.

MR. RIGDON: Yeah, how late are we going to go today?

THE COURT: I'd like to finish Mr. Smith.

MR. RIGDON: Okay. I'm up for a break then.

THE COURT: I'll drive at night. Don't want to, but I will.

Court's in recess.

(Recess.)

THE COURT: We have all the counsel, all the parties, the witness on the witness stand under oath.

Miss Peterson.

MS. PETERSON: Thank you, Your Honor. I appreciate the indulgence.

THE COURT: Sure.

MS. PETERSON: I was not able to find the

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document so I will move on.

THE COURT: Thank you.

BY MS. PETERSON:

Q. Mr. Smith, you if you could turn to Exhibit 153.

A. (Complies).

MR. RIGDON: I'm sorry, which number?

MS. PETERSON: 153.

MR. RIGDON: 53, okay.

THE COURT: No, 153; correct?

MS. PETERSON: 153.

BY MS. PETERSON:

Q. That was Shipley Spring Number 2?

A. Yes.

Q. And I believe you testified that there was a cistern here?

A. I call it a cistern. It's called out as a culvert pipe.

Q. Okay. And obviously they didn't have a metal pipe like this in pre-1905; correct?

A. I don't know when corrugated metal pipe started to be manufactured, I'm sorry.

Q. Do you have any indication that it was pre-1905?

A. I do not.

Q. And I believe your estimate of the flow for this

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spring was based upon the size of the pipe; is that correct?

A. Yes, that's my recollection is -- and I apologize, I can't remember the pipe diameters, but they're pretty small. And so that was kind of the basis for my approximation of what might have been discharging out.

Q. Okay. So if they did haven't any metal pipes pre-1905, that wouldn't be a good indicator of what the flow could have been pre-1905. Is that -- would you agree with that?

A. Well, whether it could have been ditches, and there was pipes, by the way, in 1905, but --

Q. They were wooden, weren't they?

A. Not all. Not all piping.

Q. They were iron?

A. Iron. But so we did have piping, but again, I'm basing my estimate on a spring discharge pre-1905 on what I can observe in recent conditions.

So it's based on the pipe sizes and my estimate on possibly what could have been conveyed through those two pipes coming out. I'm not suggesting that that's how it was conveyed out though in 1905.

Q. Or what, if any, configurations were done to the spring with regard to putting this pipe in; is that --

A. Yeah.

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Q. Would you agree with that?

A. We don't know.

Q. And then directing your attention to your report. It's Exhibit 186.

A. Yes.

Q. And the last page is your conceptual drawing?

A. Yes.

Q. And the use of the word "conceptual" means that it's your theoretical interpretation of what could have happened; is that correct?

A. No. These were conceptual really to indicate it's more of a cartoon to help visually depict what I'm physically trying to explain. So it's not to scale. It's -- basically it's not to scale. That's the big thing.

So it's really just a -- has -- it's a conceptual drawing, a schematic of a physical process that I'm trying to convey and explain.

Q. And there's no water level elevations on this; is that correct?

A. No, it's not to scale; no elevations.

Q. And no water elevations over time to support your conceptual drawing; would you agree?

A. Again, it was not intended to be an accurate to scale drawing. It's again a cartoon representation of a

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physical process that I'm trying to explain.
Q. And it doesn't include any flow properties that may have been in the alluvium; is that correct?
A. No, it does not.
Q. That maybe influence any of that hydraulic force that you testified to?
A. Well, I can tell you if we tried to actually to do a to scale drawing of the spring pool, it's a very complex geologic environment.
The limestone rock is only a few feet below the spring pool itself; in fact, the spring pool is almost right on the limestone outcrop because we drilled right next to the pool and the limestone is within 20 feet of the land surface outside the pool.
So limestone bedrock is this flow system, and there's a very large fracture zone. It's on the -- actually there's several of them, but one's on the west side of the spring pool and then there's cross-cutting fault structures, so -- but in this circumstance, the carbonate limestone rock is right beneath the base of Shipley Hot Spring pool.
Q. And those faults could certainly affect a flow, couldn't they, into the spring?
A. They are the conduits through which the flow occurs.

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Q. Or doesn't occur; do you agree?
A. Or doesn't occur if there's not enough head to push water through those fractures.
Q. So you indicated in your testimony here today that there was a flow measurement in the 1980s -- I think we were talking about the model, the groundwater model for General Moly?
A. The flow measurement was by the U.S. Geological Survey.
Q. Right. And that was 8.26 CFS I think you said; correct?
A. That's my recollection.
Q. And does that represent an increased flow of Big Shipley Springs, you know, from the I guess '60s to the '80s?
A. I'd like to refer to the plot of the data which is a prior Exhibit, I believe, Exhibit 185.
So Figure 1, page 11 of Exhibit 185 is a plot of all the data and the measurements of the U.S. Geological Survey. They are in the orange square boxes.
So you will see that, yes, there's been variance over time. At some points there's been quite a bit of variance in a very short period of time, but the high recorded was in approximately 1987 or '88.
Q. And do you have any or have you done any research

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or do you have any knowledge of what the increase -- why there was that increase in the flow of Big Shipley Spring?
A. I don't know for certain, but there are probably two mechanisms that can explain -- probably at least two mechanisms that could explain it.
The early mid-1980s we had some very wet years, water years. So we're -- it could be that there is a bit of a lagged response in spring discharge that's purely climate-driven.
We did do some analysis early I think in the 2013 Exhibit and report to try to see if there's a correlation between climate and spring discharge. We couldn't build a statistically significant relationship, but it still may exist.
It also could be that just on those instances when they went out, the pond was operating at a lower level. This is -- this is a deficiency. Again the USGS measurements, they do a great job, but their deficiency is they did not record the pond height when they made their discharge measurements.
And that was somewhat of an oversight in my mind, because if they would have recorded the pond height, then we would know, for example, well, was the pond just operating at a lower water stage, or is this an effect of wet years that

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we've had subsequently; those are certainly two possibilities of it.
Q. And it's just another variable that may affect what the measurements are, would you agree, the precipitation, is that how I'm interpreting your testimony?
A. Yes. Again 2013, we could not find a statistical correlation, but a lot of springs do have some variance that's related to climate. Some are mild and subtle, some are lagged, some are very immediate, some are quite dramatic.
We're not able to define with the data that we have for Shipley Hot Spring though.
Q. And do you know if any of that kind of information was taken into account for Nickerson's estimates; do you have any knowledge of that?
A. I do recall -- I apologize, I can't remember if it was in the 2013 Exhibit, again we did provide some hydrographs back to the 1985 time frame, regional climate hydrographs.
And as I recall, back in that time frame conditions might have been a little bit climatically drier than the long-term average. I do recall, of course, in the '70s, '80s we had a wet cycle, but I don't recall any other anomalies other than I believe those early years compared to the hundred-year period of record might have been a little

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below average.
Again, I haven't looked in that data in quite a long time.
Q. Are you referring to Exhibit 184? That's your first report.
A. I believe that's the Exhibit. Let's see if we find what I'm looking for.
MR. RIGDON: Which exact page?
MS. PETERSON: It's page 4.
MR. RIGDON: Four.
MS. PETERSON: I'm sorry. Figure 2.
MR. RIGDON: I'm sorry, Karen, I didn't hear you.
MS. PETERSON: It's page 4.
MR. RIGDON: Page 4.
MS. PETERSON: Figure 2.
BY MS. PETERSON:
Q. Is that the information that you're referring to?
A. Yes, I do see some information in Exhibit 184. For example, on page 4 is where we looked at the precipitation records versus Shipley Hot Spring discharge and could not find a statistical significance.
THE COURT: I'm sorry, I didn't hear the last part of your answer.
THE WITNESS: Where we did not find a statistical

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correlation between climate and discharge.
THE COURT: Thank you.
BY MS. PETERSON:
Q. Right. But your testimony was that you thought you looked at data clear back to 1912 and this shows that the data that you looked at was 1965 to 1994; correct?
A. Yes. This analysis was using the USGS spring discharge data.
MS. PETERSON: That's all we have, Your Honor. Thank you.
THE COURT: Redirect.
MR. RIGDON: Thank you, Your Honor.
REDIRECT EXAMINATION
BY MR. RIGDON:
Q. Mr. Smith, do you recall Mrs. Peterson asked you about ruling 6371?
A. Yes.
Q. Okay. And specifically she was asking you about whether the State Engineer considered all of the spring flow -- all of the spring flow reports that we talked about in ruling 6371. That's what she asked you about; correct?
A. Yes.
Q. Okay. So if you'll turn in your binder, at the very last end we have excerpts from ruling 6371. This is

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marked 6371 because it's not -- is this, in fact, ruling 6371?
A. Yes.
Q. And if you turn to the page marked at the top page 6 which is actually the second page, is this the section of ruling 6371 where the State Engineer talks about the flow rate of Big Shipley Spring?
A. Yes.
Q. Okay. So let's walk through this. What's the very first sentence he states in the -- under Section 2 here?
A. Section 2 entitled "Big Shipley Spring predeveloped flow rate." The State Engineer found in ruling number 6290 that the likely pre-groundwater development flow for Big Shipley Spring was between 7 and 8 CFS."
Q. Okay. So he started out at the very beginning saying I think it's 7 to 8 CFS; right?
A. Yes, based on that reference.
Q. Okay. So then he talks about other springs in the area. When we get to page -- when we get to page 9 is when he actually gets to Big Shipley and Indian Camp Spring; is that correct?
A. Yes.
Q. Okay. And he starts out by -- in that last paragraph on page 9, he starts out by saying agent Payne reported in 1912 8 CFS or more?

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A. Correct.
Q. Okay. That's one piece of evidence he looked at; right?
A. It's one he's referenced in this ruling.
Q. Okay. He next mentions Edgar Sadler, but Edgar Sadler didn't actually give a flow rate estimate; right?
Q. Okay. So the third one is this testimony from Bailey that is secondhand hearsay testimony; correct?
MS. PETERSON: Objection, Your Honor. That improperly characterizes the statement in the State Engineer's --
MR. RIGDON: I'll reword it.
BY MR. RIGDON:
Q. It's a secondhand account from Bailey about what somebody else told him; correct?
A. That's what it appears.
Q. Okay. And then -- and then he moves on to certain wells on the Siri Ranch. Is there any other mention in this of any other piece of evidence that the State Engineer looked at before going on to use Harrill as his measurement?
A. There is not.
Q. Okay. And so he looked at three pieces of evidence all of which at least on their face confirm his 7 to 8 CFS and no piece of evidence that didn't confirm his 7 to 8

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CFS; correct?
A. I would say that his ruling references only those three pieces of information.
Q. Okay. And so then at the end after doing his calculation that you describe with Harrill where he tries to extrapolate (indiscernible) from Harrill, what does he come up with?
A. Well, again, he averages the three Harrill measurements from 1965, 1966. The average of which is 6.80 CFS. And then he adds to that 0.22 CFS for an adjustment related to potential well impacts to the flow at the time of Harrill's measurements.
Q. Okay. So, and what did he come up with as the number?
A. So the total is 6.8 plus 0.22 being 7.02 CFS.
Q. Okay. So he starts with saying, I believe it's 7 to 8 CFS, looks at three pieces of evidence to corroborate that and then ends up with, see I was right it's 7.02; right?
A. That's not exactly --
MS. PETERSON: I just -- I just -- objection, Your Honor. That's not the proper characterization of the written document.
THE COURT: Objection sustained. I read it.
MR. RIGDON: Okay.

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BY MR. RIGDON:
Q. But he did -- he totally ignored, or he total didn't mention any other estimates that fell outside of his 7 to 8 CFS range that he started with?
A. He does not reference any of the other observations or reports of flow or data in this ruling.
Q. As a scientist who does this type of work, is that the proper scientific method to come up with a conclusion and then only look at evidence that supports that conclusion?
MS. PETERSON: Objection, Your Honor, that is not a proper characterization of, if that's intended to be a hypothetical, it's not the proper characterization of what occurred in this proceeding by the State Engineer.
THE COURT: The objection is overruled. He can testify from his training and experience as a professional.
THE WITNESS: Well, I'd like to qualify my statement first, because this ruling was issued in November of 2016. So at the time of this ruling, we did not have the Nickerson evidence that we have today. And, honestly, I think that's pretty significant.
So -- so that piece of evidence just was, nobody was aware of it including the State Engineer at the time of this, this ruling.
But otherwise I do find it, I would say that a

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proper scientific method and, honestly, being a consultant for 33 years, you know we get accused of this, and I'm very cautious of projecting the appearance of cherry picking data.
What we strive to do, everybody has their perspective here, we can ignore it, we try to be objective, I don't know if the State Engineer would also in all of his rulings, but if you look at it just strictly objectively and remove yourself from any of the other issues that are out there in Diamond Valley and elsewhere and you would simply take and acknowledge, okay, I have a GS report at 11.1 CFS, you know, you can hunt through that document and find out the references and what the basis for that is.
You have these other reports and observations, and I would say that those aren't as strong of evidence in my mind because they weren't made by a scientist or an engineer.
But at the time, you know, there's no recognition of that USGS published value in 1937. I think that should have been factored into consideration. I see no reason why it should have been excluded from being factored into consideration certainly.
And then clock forward to today, I think there's another piece of critical information, that's the Nickerson report. I think you have to factor all those in as objectively as you can, try to understand the conditions under

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which the data is being reported and -- and then from there render your -- your assessment.
Generally speaking when I'm confronted with multiple values like this, if I put relatively equal weight on everything, then I'll average them and say that maybe somebody was estimating a little high on this day and somebody was estimating them a little low.
Average them together, give the benefit of the doubt to all these pieces of information and average them together and it's likely that you are pretty close to the actual value. That's just purely an objective way to, to approach this.
I think do you have to look at each piece of data, assign some weight to it, but again, as it was described in this ruling, there was additional information that was presented in this hearing.
In particular, the USGS data in my mind should have been weighted in the consideration, and if you're going to include other apparent evidence like the Rufford Bailey testimony of something that he was told from Tiny Sadler, then certainly he should be acknowledging all those other reports of discharge too.
I mean, do they not weight fully in this equation? Why are they absent? I just don't have an

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explanation for it. It just doesn't seem like an objective discussion in the ruling of all the data and the evidence of how to arrive at the best available value, none of us know for certain trying to use fragments of data and information to project backwards in time, now almost 120 years, so anyway, that's my perspective as a scientist and an engineer.

BY MR. RIGDON:

Q. Thank you. And then Miss Peterson also asked you in the Final Order of Determination, and I just want to get clarification, she was asking you about the very general sentence that the State Engineer considered other data.

Did he include any specific analysis of that other data?

A. No specific reference of that information in the (indiscernible).

Q. So we don't even know when he says, "other data" what he means by other data?

A. Correct, all though I would caveat that, I think it's the other data that was presented to him in the hearings.

Q. Okay. And is it -- when do you a scientific analysis of, and you get different data points, even the data points that you're not going to use, do you at least mention them and analyze them and say why you're not going to use them?

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A. Yes. There's certainly occasions where you think a data point is suspect for whatever reason and it is certainly legitimate at that point to explain the rationale for not including that in that consideration and that happens. You have data that's in error. You have data you feel is not reliable for whatever reason.

Q. But you should at least address every single data point that you're given?

A. I think in this case, yes. You know, we have a limited pool of information here, so let's get it all out there and place judgment on it and weigh it all accordingly.

Q. Okay. And then Miss Peterson asked you about the model you put together, and maybe I misheard, but correct me if I'm wrong, you mentioned something about you went from Harrill forward.

Did you -- did you when you were putting together that model, did you know about or use any information from those pre-1950 reports?

A. No. At the time, I had no knowledge of the information. In fact, I wasn't really scrutinizing or studying Shipley Hot Spring. It was simply a resource that was included in a very regional scale model.

So, we, you know, for us at that time we just used the USGS published data from 1965 forward for the spring

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that calibrates. So -- but keep in mind, this model included all of Kobeh Valley, Antelope Valley, the southern half of Pine Valley and all of Diamond Valley. It's a very regional scale. It wasn't meant to be very specific tool at the level that we're scrutinizing Shipley Hot Spring today.

Q. And what was the purpose of that model?

A. That was developed for the Mount Home project, mining project and it was to look at potential impacts forward in time of that proposed end project.

Q. So that model was trying to project impacts forward, it wasn't trying to determine what was in existence prior to 1905?

A. Right. We were trying to calibrate the model to current conditions to have an accurate tool to project forward in time to look at potential impacts of pumping groundwater for that project.

Q. So you were trying to take a snapshot in time of the current conditions and then determine whether that project would have any impact on what those current conditions are?

A. Yeah. We weren't trying to represent historical conditions in the valley. That's part of the calibration process to have a tool that you can then have some confidence in projecting forward in time with continued pumping or additional pumping.

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Q. Right. But you were looking forward to see what would be the effects of that project?

A. Yes.

Q. Going forward?

A. That was the purpose of that model was to get a forward look at potential impacts.

Q. Okay. Miss Peterson asked you about the small increase in the spring flow at Indian Camp Spring recorded by Harrill over the course of four months, I believe it was, when you made those two measurements.

Is there -- are there unique qualities to Indian Camp Springs, you mentioned earlier that it was different in character to Big Shipley Spring that would mean maybe that it would have maybe a different reaction to groundwater development?

A. Well -- I'm sorry, you said groundwater withdrawal?

Q. No. What I said was, you mentioned that Indian Camp Springs is a different type of spring than Big Shipley Spring; correct?

A. Yes.

Q. Okay. It's more like seeps?

A. Yes.

Q. Would the -- would the different springs react to

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pumping influences in different ways?
A. Yes. And I would add that they will also react differently to climate and that can include seasonal climate. A lot of more local scale springs that aren't sourced into a very large recharge area have very charge flows are very much more sensitive to just seasonal changes in recharge.
So it's very common we see seasonal highs in spring discharge in the spring and the remaining through the summer and the lows in the late fall, just like you would surface water resources.
But, again, every spring is a bit different in its characteristic and what it responds to.
Q. Miss Peterson also noted that in Harrill's report, he indicated that at the time he was making those measurements, the pumping only equaled half the perennial yield; do you remember that?
A. Yes.
Q. Does that have anything to do with whether that pumping is influencing springs?
A. No. The proximity of the pumping is. Proximity, and I will also say, the geologic environment that the well is tapped into.
So, for example, if the spring is discharging in Limestone rock along a fracture zone and we put a well a few

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miles away, but right in that same fracture zone, it could have a very immediate effect on that spring. We've seen that happen throughout the state and throughout the west.
But if that same well were to have, if it would have been moved over a fairly short distance and was not drilled into that fracture zone, it might have had no impact to the spring. So it gets very complicated when you talk about spring impacts, pumping impacts to spring discharge.
So, proximity, yes, but also geologic environment, there are other considerations. As a general rule, though, proximity pumping is usually a (indiscernible).
Q. So, there's no -- there's no general rule you can follow, there's no reason to believe that keeping pumping under perennial yield is a magic bullet to keep things from affecting the springs?
A. Oh, no, no, that's definitely not the case. You could have a basin that's not pumped at all, one well comes in next to a spring and it affects that spring severely. So that's that is not perennial yield anchored.
Q. Okay. And then finally, when we look at the affidavit from Nickerson, Miss Peterson was asking you about the part of the affidavit where he discusses water flowing under the vacant land; do you remember that?
A. Yes.

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Q. What do you take to -- what does vacant mean?
A. It doesn't have a trailer on it. Vacant, yeah, I'm not certain, I guess, I --
Q. Well, let me ask you this. Does -- if you have pasture land or meadow land, is that -- can that be considered vacant land?
A. I guess it could be, but it seems like in the context of vacant would have been maybe -- maybe, you know, noncultivated, but I'm not sure. But it certainly could have been an area of storage or an area that just wasn't, as it wasn't developed, I'm not sure. I'm really not sure.
Q. Okay. But there's no way to know just from what was in that affidavit?
A. No.
Q. Okay.
MR. RIGDON: That's all I've got, Your Honor.
THE COURT: Recross, Miss Peterson.
MS. PETERSON: Thank you, Your Honor.
RECROSS-EXAMINATION
BY MS. PETERSON:
Q. Directing your attention Mr. Smith to, I don't know if there's an exhibit number on it, but in my binder it just says 6371?
MR. RIGDON: Yeah, that's not an exhibit number.

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It's just the exhibit.
MS. PETERSON: So this isn't an exhibit in the record?
MR. RIGDON: No. 6371 is not an exhibit in the record. It's an official record of the State Engineer's office.
MS. PETERSON: So we'll be using it because of that reason?
MR. RIGDON: We're using it because you brought it up. You opened the door. I didn't mention it at all.
MS. PETERSON: I'll note -- I'll note that it's not on the exhibit list, Your Honor, but I'll move on to my questions.
THE COURT: All right. Thank you.
BY MS. PETERSON:
Q. So, the ruling, the excerpts that are provided here, the ruling jumps from page 11 to page 26; is that correct, in this excerpt?
A. Yes.
Q. So there's 15 pages of the ruling that we don't know what it says and that you haven't had a chance to review with regard to your statements about what's contained in this ruling; is that correct?
A. I -- I have read this ruling relatively recently,

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I haven't committed it to memory, but I -- I have reviewed this ruling. But it is, yes, it's correct that it's missing a lot of pages in this excerpt that's been provided.

Q. And there could have been more discussion about the flow, the State Engineer decided on for Shipley Hot Springs; is that correct?

A. I do not recall that discussion being in this ruling.

Q. Okay. You don't know as you sit here today, you don't know?

A. Not absolutely, but I don't recall it.

Q. And you also had some testimony about prior, a proper scientific method and some allusion to the State Engineer cherry picking data; do you recall that?

A. Oh, you know, I was really trying to set the stage as far as what I'm always sensitive about my work being criticized for.

So maybe that was a poor use of terminology, honestly, but it really just appears that the discussion in the ruling was not objective in the matter of reviewing each of the pieces of information that are available and then placing some judgment or weight on them.

So that is a criticism I have of how this ruling has been written.

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Q. And you are a consultant that's your profession; correct?

A. Yes.

Q. Have you ever been a State Engineer?

A. No.

Q. And the State Engineer is not a consultant, is he?

A. No.

Q. And the State Engineer doesn't write his rulings like a consultant may write his reports; is that correct?

A. I don't think that's absolutely correct. I think we're still trying to convey information and support our findings, but, yes, rulings are crafted different and become somewhat of a legal document and they're other, usually other things besides just technical aspects that are discussed in the ruling.

But, no, I think a broader basis, we are presenting facts and trying to support our conclusion.

Q. But the State Engineer is the factfinder; is that correct, in ruling 6371?

A. Yes.

Q. And so he gets to decide what evidence he wants to accept and what evidence he doesn't want to accept; would you agree with that?

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A. If he's not going to accept it, please tell us why.

Q. You would --

A. -- because --

Q. -- you would have written the ruling differently if you were the State Engineer; would you agree with that?

A. No. I've read many, many rulings, and I think we all have probably disagreement. Some -- and I we're was saying other aspects of this ruling some of the facts and interpretations that I presented were, were discussed and not agreed upon in this ruling. But it was at least spelled out so you can understand how -- how the thought process was to get from A to Z, the conclusion.

I don't find that discussion in this ruling when it comes to all the early timeframe observations, reports of discharge that could be interpreted to be pre-1905. I don't find that in this ruling.

Q. Again, if you were the State Engineer, you would have written the ruling differently. Would you ago free with that?

A. Sure, yes.

Q. And do you know if this ruling was appealed by Sadler Ranch to the District Court?

A. I -- I don't know.

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Q. You have no idea whether this ruling was overturned or not by the District Court?

A. I don't, no.

Q. Do you have any knowledge of any subsequent proceedings, court proceedings involving Sadler Ranch and rulings by the State Engineer and the 7.02 CFS flow rate?

A. No. You know, my participation is, as I testified, I read the rulings, but that's kind of the end of my participation in the process.

So, I'm really not the right person to ask about what happened afterwards, so --

Q. Or your -- your clients' legal position with regard to the 7.02 CFS rate?

A. I -- I haven't -- I don't know. I haven't discussed it.

Q. Were you here for the testimony of Mr. Buschelman yesterday?

A. No.

Q. Okay.

MS. PETERSON: I don't have anything else. Thank you, Your Honor.

THE COURT: Thank you. This concludes Mr. Smith's testimony. I didn't ask, were these witnesses subpoenaed or were they just appeared on behalf of claimants.

MR. RIGDON: Were what now?
THE COURT: Were these two witnesses Mr. Buschelman and Mr. Smith subpoenaed?
MR. RIGDON: No.
THE COURT: Okay. So they just appeared, so we don't have to release them from any subpoenas or anything, okay.
MR. RIGDON: No.
THE COURT: Very well, so that concludes the testimony here today.
Let's plan to start at the same time in the morning. Let's start at 9:00 a.m. tomorrow morning. And then you, what I was going to say is I believe you have two more witnesses; am I correct?
MR. RIGDON: Correct.
THE COURT: Okay. And, go ahead, go ahead. You were going to say something.
MR. RIGDON: Well, I was going to ask you, I know they haven't been subpoenaed, but are they free to go home tonight?
THE COURT: Absolutely.
MR. RIGDON: Okay.
THE COURT: They haven't been subpoenaed, they're gone.

MR. RIGDON: Okay.
THE COURT: If they want to.
MR. RIGDON: Excellent.
THE COURT: Sure. Sure. Certainly.
MR. RIGDON: So we have two witnesses tomorrow, they'll be very brief. I don't think, at least on my direct, we won't go more than probably an hour and a half.
THE COURT: And then at this time, you're anticipating Mr. Tibbitts? You don't have to commit to it, but that's a possibility.
MS. PETERSON: Possibility.
THE COURT: Okay. All right. I'll accept that. Very well. There's nothing else, then the Court's in recess until 9:00 a.m. tomorrow morning.
(Proceedings concluded at 5:41 p.m.)

STATE OF NEVADA,)
)
CARSON CITY.)

I, Shellie Loomis, a transcriber in the State of Nevada, do hereby certify:

That the foregoing transcript is a full, true and correct transcription of said proceedings to the best of my ability.

DATED: At Carson City, Nevada, this 30th day of November, 2021.

//SHELLIE LOOMIS//
Shellie Loomis, RPR

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EXHIBITS

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Exhibit 3

Exhibit 3

NO. _____
FILED

DEC 18 2020

By _____ Eureka County Clerk

Case No. CV-2002009

Dept. No. 2

IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA, IN AND FOR THE COUNTY OF EUREKA

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS, BOTH SURFACE AND UNDERGROUND, LOCATED WITHIN THE DIAMOND VALLEY HYDROGRAPHIC BASIN NO. 10-153, EUREKA AND ELKO COUNTIES, NEVADA

_____/

EUREKA COUNTY'S MOTION TO INTERVENE AND NOTICE OF MOTION

EUREKA COUNTY, by and through its counsel of record, ALLISON MacKENZIE, LTD. and THEODORE BEUTEL, ESQ., the EUREKA COUNTY DISTRICT ATTORNEY, files this Motion to Intervene in the above-entitled action pursuant to the Court's Order issued December 10, 2020. This Motion is made and based upon Rule 24 of the Nevada Rules of Civil Procedure ("NRCP") the papers and pleadings on file herein, and the following Memorandum of Points and Authorities.

I.

NOTICE OF MOTION

A hearing on this Motion to Intervene is not requested.

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II.

MEMORANDUM OF POINTS AND AUTHORITIES

A. Introduction.

EUREKA COUNTY files this Motion to Intervene to ensure it may participate fully in the evidentiary hearings to be held in this adjudication on all the exceptions that have been filed in this proceeding and to support the Order of Determination entered by the State Engineer as may be necessary to protect EUREKA COUNTY's interests. First, it is not clear what role the State Engineer will take in this proceeding and whether the State Engineer will be actively defending his Order of Determination based on the evidence presented to him in the adjudication proceedings below. Second, this adjudication involves the adjudication of and will have implications on all waters, both surface and underground, located in the Diamond Valley basin. Because the surface and groundwater systems in Diamond Valley are hydrologically connected, the adjudication and quantification of the senior pre-statutory surface water rights necessarily affects junior water right holders in the basin such as EUREKA COUNTY. *See* Order of Determination, Appendix B, Permitted and Certificated Rights, Underground Rights at 519-541. Further, the judicial decree entered by the Court will subsequently affect all water right holders, both senior and junior, in other matters in the Diamond Valley basin, related to corresponding granting of mitigation rights, groundwater management plans and curtailment. *See* EUREKA COUNTY's Notice of Exceptions at 13. EUREKA COUNTY's municipal rights in Diamond Valley are used to provide municipal service to its citizens. Every superior priority right claimed above EUREKA COUNTY's must be quantified carefully and correctly in order to honor the importance and rights of the other users of water in the basin. Finally, based upon the comments of the Court and others in this proceeding at the hearing held on November 10, 2020 that a motion to intervene may be necessary to participate in the hearing on the exceptions of others and to defend the State Engineer's Order of Determination, EUREKA COUNTY files this Motion to Intervene to protect its interests. To the extent EUREKA COUNTY's Notice of Exceptions filed on November 4, 2020 does not automatically allow EUREKA COUNTY's participation in the evidentiary hearing on the Bureau of Land Management's ("BLM") Notice of Exceptions or the hearings on other

exceptions involving the BLM's claims of Public Water Reserves ("PWRs"), EUREKA COUNTY specifically includes such request in this Motion to Intervene.

As James H. Davenport noted, statutory adjudications occur when the State Engineer files with the district court a final Order of Determination as to a water system. James H. Davenport, *Nevada Water Law* (2003) at 104. The purpose of a statutory adjudication is to have water rights "adjudicated in such a proceeding as to terminate for all time litigation between all such water users." *Ruddell v. Sixth Judicial Dist. Court*, 54 Nev. 363, 367, 17 P.2d 693, 695 (1933).

NRS 533.170(2) states that "[t]he order of determination by the State Engineer and the statements or claims of claimants and exceptions made to the order of determination shall constitute the pleadings, and there shall be no other pleadings in the cause." "It is ... settled in this state that the water law and all proceedings thereunder are special in character and the provisions of such law not only lay down the method of procedure, but strictly limit it to that provided." *G. & M. Props. v. Second Judicial Dist. Court*, 95 Nev. 301, 305, 594 P.2d 714, 716 (1979) (quotation omitted). The district court has jurisdiction in a statutory adjudication to consider issues raised in the proper pleadings established by statute. *Bentley v. State, Office of State Eng'r*, 132 Nev. 946, 2016 WL 3856572 (Table), Docket Nos. 64773, 66303, 66932, (July 14, 2016) (unpublished disposition cited as persuasive authority).

Because of the objective of quieting and resolving all claims in the water system, the notion of standing to appeal a final determination is broad. Davenport, *supra* at 110. Even parties who fail to take exceptions to an adjudication when reviewed upon appeal are entitled to participation in consideration of the adjudication. An adjudication is not a separable controversy between a few claimants. All claimants or water users in a water rights adjudication proceeding under the water statutes are essentially adverse. *In re Water Rights in Silver Creek*, 57 Nev. 232, 61 P.2d 987 (1936), cited with approval in *Bentley v. State, Office of State Eng'r*, 132 Nev. 946, 2016 WL 3856572 (Table), Docket Nos. 64773, 66303, 66932, (July 14, 2016) (unpublished disposition cited as persuasive authority).

Davenport states: "Because the state engineer's process is administrative and in the nature of a judicial referee or special master, the judicial process that follows should not be thought of as a

judicial review proceeding, where the 'standard of review' would ordinarily come into question. The court is not bound by the state engineer's determination of law. *United States v. Alpine Land & Reservoir Company*, 27 F. Supp. 130 (D. Nev. 1988). Determinations of fact by the state engineer are upheld where there is clear and convincing evidence to support them. *Id.* The court may go outside the state engineer's record or determinations in order to ascertain additional information or remand the case back to the state engineer to reestablish certain evidence or the qualifications of experts. NRS 533.175, NRS 533.180." Davenport, *supra* at 107.

The Nevada Supreme Court has noted: "While the ultimate findings of the state engineer are entitled to great respect, and in practice are not often disputed, they do not take from the court the power to grant relief to a party whose rights the state engineer may have infringed. It is just as essential for courts to make findings and draw their conclusions upon issues joined on exceptions taken to an order of the state engineer and enter a decree as final and effective as in other civil cases." *In re Waters of Barber Creek (Scossa v. Church) II*, 43 Nev. 407, at 411, 187 P. 1004 (1920); Davenport, *supra* at 111.

III.

LEGAL ARGUMENT

A. Standard for Intervention.

NRCP 24(a)(1) provides that on timely motion, the court must permit anyone to intervene who is given an unconditional right to intervene by a state or federal statute. NRCP 24(a)(2) provides that a court is required to permit a party's timely intervention where a party "claims an interest relating to the property or transaction that is the subject of the action, and is so situated that disposing of the action may as a practical matter impair or impede the movant's ability to protect its interest, unless existing parties adequately represent that interest."

An applicant seeking to intervene must meet four requirements under NRCP 24(a)(2) as follows: "1) that it has a sufficient interest in the litigation's subject matter, 2) that it could suffer an impairment of its ability to protect that interest if it does not intervene, 3) that its interest is not adequately represented by existing parties, and 4) that its application is timely." *American Home*

Assur. Co. v. Eighth Judicial Dis. Court ex rel. County of Clark, 122 Nev. 1229, 1238, 147 P.3d 1120, 1126 (2006). "Intervention is within the district court's discretion." *Id.* at 1234, 1124.

B. EUREKA COUNTY is entitled to intervene as a matter of right.

EUREKA COUNTY has a sufficient interest in the litigation's subject matter. EUREKA COUNTY filed claims with the State Engineer in this adjudication in response to the State Engineer's order for the filing of claims and participated in the administrative hearing proceedings leading to the Order of Determination. NRS 533.087 *et seq.* EUREKA COUNTY has an interest in the State Engineer's Order of Determination separate and apart from its exceptions. For the most part, EUREKA COUNTY agrees with the findings made by the State Engineer in the Order of Determination on the claims of others senior to its water rights. It has an interest that the determinations made by the State Engineer on those claims in the Order of Determination be upheld. It is not clear what role, if any, the State Engineer will take in these proceedings to support his findings with regard to the senior rights. In addition, EUREKA COUNTY filed objections to the State Engineer's Preliminary Order of Determination related to the BLM's PWRs and submitted evidence to support its objections at the hearings held before the State Engineer in this adjudication. The State Engineer reversed his position on certain PWRs and denied them, which the BLM seeks to uphold in this proceeding. In addition, the State Engineer upheld certain PWRs which EUREKA COUNTY filed exceptions to on November 4, 2020. To avoid any issue that EUREKA COUNTY did not file to intervene in the BLM or others' evidentiary hearings relating to the BLM's claims of PWRs, notwithstanding EUREKA COUNTY's filed exceptions, EUREKA COUNTY seeks intervention to participate in the evidentiary hearings on the BLM's and others' exceptions relating to the BLM's claims of PWRs. For all the foregoing reasons, EUREKA COUNTY meets the first factor for intervention as a matter of right relating to the notices of exception filed by others in this matter and the issues raised by the State Engineer's Order of Determination.

As set forth above, all claimants or water users in a water rights adjudication proceeding under the water statutes are essentially adverse. *In re Water Rights in Silver Creek*, 57 Nev. 232, 61 P.2d 987 (1936). An adjudication is not a separable controversy between a few claimants. *Id.* EUREKA COUNTY will suffer an impairment of its ability to protect its interests if it is not allowed to participate

as it deems appropriate and necessary in the exception hearings of others. This is particularly true if the State Engineer does not defend his Order of Determination. It is unknown precisely what position the State Engineer may take in the instant matter, and failing to include EUREKA COUNTY in every aspect of this litigation as it deems appropriate would mean that EUREKA COUNTY could not respond to any such arguments and provide evidence against the party who is its adversary in this adjudication proceeding. Additionally, the Court would be eventually entering an order affecting EUREKA COUNTY's rights without any input from EUREKA COUNTY and EUREKA COUNTY's interests and the public interests of its citizens would therefore be unprotected.

EUREKA COUNTY's interests are not adequately represented by existing parties. In Nevada, water rights are regarded and protected as real property. *Application of Filippini*, 66 Nev. 17, 21–22, 202 P.2d 535, 537 (1949). The Nevada Supreme Court has concluded that real property rights, including water rights, are unique forms of property and those with an ownership interest cannot be adequately represented by others citing *Dixon v. Thatcher*, 103 Nev. 414, 416, 742 P.2d 1029, 1030 (1987) (holding that "real property and its attributes are considered unique"). *Eureka Cty. v. Seventh Judicial Dist. Court in & for Cty. of Eureka*, 134 Nev. 275, 281, 417 P.3d 1121, 1125–26 (2018). While other parties affected by the State Engineer's Order of Determination, may take positions that are aligned with, or not necessarily adverse to EUREKA COUNTY, none of them have the same interest arising out of the water rights owned by EUREKA COUNTY, and there is no reason to believe that another party would be able to represent EUREKA COUNTY's interest. Thus, the third factor for intervention of right is met by EUREKA COUNTY's intervention.

Finally, EUREKA COUNTY's application is timely. EUREKA COUNTY filed this Motion in accordance with the Court's deadline imposed at the November 10, 2020 hearing and in its December 10, 2020 Order. This Motion is brought well before trial and at the beginning of this adjudication proceeding.

C. **In the alternative, EUREKA COUNTY should be granted permissive intervention.**

NRCP 24(b) provides for permissive intervention when a potential intervenor "has a claim or defense that shares with the main action a common question of law or fact" and intervention will not

unduly delay or prejudice the adjudication of the original parties' rights. *See also Dangberg Holdings v. Douglas Co.*, 115 Nev. 21 129, 141, 978 P .2d 311, 318 (1999). Here, the issues before the Court contain questions of law and fact which are common to EUREKA COUNTY - that is, the validity of the State Engineer's Order of Determination. EUREKA COUNTY's intervention will not delay or prejudice the adjudication of this action. Accordingly, EUREKA COUNTY should be allowed to intervene under NRCP 24(b) should the Court find it is not an intervenor as a matter of right.

IV.

CONCLUSION

As set forth above, EUREKA COUNTY meets all the factors required for the Court to grant it leave to intervene in this action. For the reasons described herein, EUREKA COUNTY respectfully requests the Court grant this Motion to Intervene and grant EUREKA COUNTY party status so it can ensure its interests are appropriately addressed arising out of the State Engineer's Order of Determination and the notices of exceptions filed by others. A proposed Order granting EUREKA COUNTY's Motion to Intervene is attached as **Exhibit "1"**.

V.

AFFIRMATION

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

DATED this 18th day of December, 2020.

KAREN A. PETERSON, ESQ.
Nevada State Bar No. 366
ALLISON MacKENZIE, LTD.
402 North Division Street
Carson City, Nevada 89703
Telephone: (775) 687-0202
Email: kpeterson@allisonmackenzie.com

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EUREKA COUNTY DISTRICT ATTORNEY
701 South Main Street
Post Office Box 190
Eureka, Nevada 89316
Telephone: (775) 237-5315
Email: tbeutel@eurekacountynv.gov

BY: _____

THEODORE BEUTEL, ESQ.
Nevada State Bar No. 5222

Attorneys for EUREKA COUNTY

CERTIFICATE OF SERVICE

Pursuant to NRCP Rule 5(b), I hereby certify that I am an employee of ALLISON MacKENZIE, LTD., Attorneys at Law, and that on this date, I caused the foregoing document to be served on all parties to this action as follows:

Via Electronic Service:

Paul Taggart, Esq.
paul@legaltnt.com
david@legaltnt.com
Tim@legaltnt.com
tammy@legaltnt.com

Therese Ure Stix, Esq.
therese@water-law.com

Alex Flangas, Esq.
aflangas@kcnvlaw.com

David Negri, Esq.
david.negri@usdoj.gov

James N. Bolotin, Esq.
jbolotin@ag.nv.gov

Ross E. de Lipkau, Esq.
Ross@nvlawyers.com

Gordon H. DePaoli, Esq.
gdepaoli@woodburnwedge.com

Pete Goicoechea
pgoicoechea@yahoo.com

Hon. Gary D. Fairman
c/o Wendy Lopez
WLopez@whitepinecountynv.gov

Via First Class Mail:

Hon. Gary D. Fairman
Department Two
P.O. Box 151629
Ely, NV 89315

DATED this 18th day of December, 2020.

Nancy Fontenot
NANCY FONTENOT

INDEX OF EXHIBITS

Exhibit No.	Description	Number of Pages
"1"	[Proposed] Order Granting Eureka County's Motion to Intervene	03

EXHIBIT "1"

ALLISON MacKENZIE, LTD.
402 North Division Street, P.O. Box 646, Carson City, NV 89702
Telephone: (775) 687-0202 Fax: (775) 882-7918
E-Mail Address: law@allisonmackenzie.com

Case No. CV-2002009

Dept. No. 2

IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA, IN AND FORTHE COUNTY OF EUREKA

IN THE MATTER OF THE DETERMINATION OF THE RELATIVE RIGHTS IN AND TO ALL WATERS, BOTH SURFACE AND UNDERGROUND, LOCATED WITHIN THE DIAMOND VALLEY HYDROGRAPHIC BASIN NO. 10-153, EUREKA AND ELKO COUNTIES, NEVADA

_____/

ORDER GRANTING EUREKA COUNTY'S MOTION TO INTERVENE

THIS MATTER is before the Court on EUREKA COUNTY's Motion to Intervene. The Court having read the papers and pleadings on file herein, having considered the applicable law and facts, and good cause appearing therefore, finds and orders as follows:

EUREKA COUNTY has shown its intervention as a matter of right to participate in all the evidentiary hearings on the notices of exceptions in this adjudication proceeding meets the four requirements under NRCP 24(a)(2): "1) that it has a sufficient interest in the litigation's subject matter, 2) that it could suffer an impairment of its ability to protect that interest if it does not intervene, 3) that its interest is not adequately represented by existing parties, and 4) that its application is timely." *American Home Assur. Co. v. Eighth Judicial Dis. Court ex rel. County of Clark*, 122 Nev. 1229, 1238, 147 P.3d 1120, 1126 (2006). "Intervention is within the district court's discretion." *Id.* at 1234, 1124.

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Good cause appearing therefore,

IT IS HEREBY ORDERED:

1. The Motion to Intervene filed by EUREKA COUNTY is **GRANTED** in its entirety.

2. EUREKA COUNTY is granted status to participate as it deems appropriate in the evidentiary hearings on the notices of exceptions filed in this action as set forth in the Court's Order Setting Hearings for Notices of Exceptions Filed on Order of Determination to Determine Relative Water Rights issued December 10, 2020 and is entitled to file pleadings, fully participate in the evidentiary hearings on the notices of exceptions and present evidence, cross examine witnesses, present argument and legal briefs as its interests may appear on issues developed during the course of the proceedings to ensure its interests are appropriately addressed in this adjudication arising out of the State Engineer's Order of Determination and all notices of exceptions filed in this action.

DATED this _____ day of _____, 20___.

_____
DISTRICT JUDGE

4849-5156-7060, v. 1

ALLISON MacKENZIE, LTD.
402 North Division Street, P.O. Box 646, Carson City, NV 89702
Telephone: (775) 687-0202 Fax: (775) 882-7918
E-Mail Address: law@allisonmackenzie.com