

MEMORANDUM



TO: Tim Luke
FROM: Dale Cunningham
DATE: February 25, 2015
RE: Review of 2014 IDWR Accounting for Bannock Creek Basin

Below are my preliminary review remarks of the IDWR 2014 accounting spreadsheet for Bannock Creek basin you sent to us on Feb.13,2015.

1. A comparison of the list of groundwater rights protected by Tribal right 29-12052 to the list of rights in the 2014 accounting spreadsheet indicates that the one of the protected rights is not included in the 2014 accounting , that is 29-13709 for 3.5 acres and 14 AFA. Right 29-13709 is also one of 3 protected rights not on the Nov.23, 2013 order requiring measurement (see Comment #2 below). Can the diverted volume in 2014 for this right 29-13709 be estimated and included in the accounting?

See response in item 2 below.

2. There are 3 relatively small protected rights not on the 11/23/2013 measurement order: 29-7110 for 5 irrigated acres & 20 AFA (combined with 29-7272 in 2014 accounting); 29-10549 with 1 irrigated acre and 5.2 AFA, (blank volume in 2014 accounting); and 29-13709 for 3.5 acres and 14 AFA (see Comment #1 above). Can an estimated diverted volume be included in the 2014 accounting for right 29-10549, as well as for 29-13709 noted above?

IDWR Response: The IDWR Measurement Order of November 23, 2013 required installation of measuring devices for diversions of water rights for irrigation of more than 5 acres. The three rights listed in items 1 and 2 above are each less than 5 acres, although one of the rights is diverted and combined with a right that is greater than 5 acres as you noted. IDWR has no immediate plans to modify or change the measurement order to require installation of measuring devices for diversions serving 5 acres or less. We can consider providing estimates for such diversions but I would prefer to defer to Dave Shaw regarding the methodology for such estimates. The watermaster has tracked a few smaller rights at 5 acres or less to confirm if the rights were being used or not. Some tracking of these rights is beneficial since they are still subject to minimum water district assessments. You might consider discussing with Dave further regarding a methodology for estimating these. IDWR did not prepare the measurement order on the basis of whether certain rights are protected pursuant to right 29-12052 and we did not receive any comments regarding the need to include certain rights relevant to the conditions of right 29-12052.

3. The following table shows a comparison of the measured or estimated 2014 accounting volume to the water right decreed volume and to the calculated theoretical diversion requirement.

Wtr Rt #			Source	Acres	Decreed Vol, AFA	Calc, Div. Reqd, AFA	Reduced Calc Div Reqd, AFA	Measured AFA
29	2458	A	GROUND WATER	87.0	348.0	243	243	103
29	2470		GROUND WATER	283.0	1407.0	790	790	82.5
29	2509		GROUND WATER	Included in 29-7272				0
29	7272		GROUND WATER	120.3	408.0	336	226	1.36
29	2565		GROUND WATER	409.0	505.4	1141	659	0
29	4349		GROUND WATER	91.2	365.0	254	254	80.7
29	7110		GROUND WATER	5.0	20.0	14	14	Included in 29-7272

Wtr Rt #		Source	Acres	Decreed Vol, AFA	Calc, Div. Req'd, AFA	Reduced Calc Div Req'd, AFA	Measured AFA
29	7291	GROUND WATER	326.3	1305.2	910	910	440.2
29	7630	GROUND WATER	149.0	520.0	416	416	1.4
29	10549	GROUND WATER	1.0	5.2	3	3	Blank
29	13708	GROUND WATER	154.7	619.0	432	432	0
29	13709	GROUND WATER	3.5	14.0	10	10	Right not in accting.
29	13949	GROUND WATER	346.8	1369.8	968	968	495.8
29	13950	GROUND WATER	Included in 29-13949				
29	13951	GROUND WATER	Included in 29-13949				
29	13952	GROUND WATER	Included in 29-13949				
29	13984	GROUND WATER	281.2	984.2	785	785	508.6
29	13985	GROUND WATER	Included in 29-13949				
		Total	2258.0	7870.8	6300	5708	1714

Notes:

1. Acres and decreed volume taken from water right reports on the IDWR web site
 2. The calculated diversion requirement is a theoretical value based on a 5 year crop mix resulting in a water requirement of 595.3 mm and 70% irrigation efficiency as described in a May 27,2014 email from Dave Shaw to the Fort Hall Technical Team. The resulting unit diversion requirement can be calculated as follows:

$$\text{Diversion required} = 595.3\text{mm} / (25.4\text{mm/in} \times 12\text{in/ft} \times 70\% \text{ eff}) = 2.7901 \text{ AFA/ac}$$
 3. The reduced calculated diversion requirement reflects an estimated reduction of 482 AFA for 29-2565 and 110 AFA for 29-2509 and 29-7272 to account for overlap of surface water rights, as described and calculated in a Dave Shaw May 29,2014 email.
 4. Dave Shaw's May 27,2014 email originally calculated a theoretical total diversion requirement of 6479 AFA for 2322 irrigated acres before the reduction adjustment for overlap in surface water rights. These amounts have been modified in the above table to reflect the following changes in rights based on recent approved transfers:
 - a. Right 29-2458A now reflects a 2014 transfer which changed the right from 151 acres and 620 AFA to 87 acres and 348 AFA. This changed the theoretical required diversion requirement before reduction from 421 AFA to 243 AFA.
 - b. Right 29-13708 now reflects a 2013 transfer which changed the decreed volume from 631.9 AFA to 619 AFA. The acreage and hence theoretical diversion requirement did not change.
 5. In the above table:
 - a. Rights 29-2509 & 7272 have been combined since they have a combined acreage limit
 - b. Rights 29-7110 & 7272 have been combined since they have a common diversion point
 - c. Rights 29-13949, 13950, 13951, 13952, 13985 have been combined because they share a common diversion point
- a. What reasons would explain why the measured diversions for protected rights are only a fraction of the calculated theoretical diversion water requirements and the decreed volume limit amounts?
 - b. An examination of PRISM precipitation data and precipitation data at the Pocatello Regional Airport shows that while May and June 2014 precipitation was below normal, August and September 2014 precipitation was above normal. See the following table of precipitation in inches obtained from the Western Regional Climate Center for the Pocatello airport:

Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	0.63	1.08	2.29	1.37	0.34	0.43	0.46	2.18	1.48	0.04	1.58	0.77
Per. of Record Avg.	1.06	0.90	1.13	1.11	1.32	1.03	0.52	0.60	0.78	0.90	1.06	1.06

IDWR Response: All questions regarding comparisons between 2014 measured diversions and prior estimates of water use should be addressed by Dave Shaw.

4. The following rights (and associated data below) are listed on the Nov.23,2013 order requiring measurement but are not listed on the IDWR 2014 accounting spreadsheet:

Rht #	Owner	Priority Date	Div. rate, cfs	Source	Use	Irr . Acres
29-4326*	Bevan	4/20/1952	1.78	Ground water	Irrigation	150
29-10857	Bolingbroke	4/10/1907	0.08	Spring	Irrigation	409
29-10893	Hans Hayden	12/31/1927	1.6	Clifton Cr.	Irrigation, stock	166
29-13522	Hans Hayden	4/1/1960	1.0	Rattlesnake Cr.	Irrigation	120.3
29-480	Russell Hayden	10/1/1903	0.6	Rattlesnake Cr.	Irrigation	120.3
29-7335	Twain Hayden	7/14/1976	0.34	Spring	Irrigation	32
29-7948	Mid Crystal Farms	5/16/1990	0.74	Clifton Cr.	Irrigation	150

*Right 29-4326 was excluded from protection of 29-12052 because it was near the Eastern Snake Plain Aquifer boundary

- a. Please explain why these rights are not included in the 2014 accounting. See also Comment # 5 below regarding questions concerning the Hayden/Mid Crystal Farms rights and Comment #8 below regarding Bollingbroke rights

IDWR Response: Bevan right 29-4326 is being measured and reported by Water District 120. The well location is on the ESPA and WD120 boundary. WD120 has been measuring this for a number of years using the PCC method. The 2014 PCC estimated volume was 197.6 AF. This is a simple system with just 1 well and 1 pivot and field measurement was last made 7/2/2014 at 659.2 gpm. WD29-O will not likely include this well since it is already being measured by WD120.

Bollingbroke right 29-10857 from spring source. Right is combined with other Bollingbroke rights from Rattlesnake creek (29-477 & 13234) and ground water right 29-2565 on 409 acres. The spring source under right 29-10857 is the same spring source for right 29-13234. As per watermaster, a small pond is built around the springs such that springs seep or well up into the pond. Some additional springs above the pond flow directly into the pond. These additional springs above the pond are somewhat diffuse but are captured by a ditch as per the watermaster. Measurement of all the springs that seep directly to the pond is not practical; measurement of springs above the pond may be possible but flow apparently is not significant as per the watermaster. The pond also can receive water from Rattlesnake Creek and the ground water well associated with right 29-2565. The well has not been used for a number of years – most of the ground under the water rights was in CRP until three to four years ago. The pond has a re-lift pump to divert water from the comingled sources to a center irrigation pivot. If the well is used, a flow meter must be installed to measure discharge to the pond. A meter could be installed on the re-lift pump to measure the comingled sources – any difference from the ground water flow meter would be attributed to the springs and Rattlesnake Ck. The watermaster said that Bollingbroke is in the process of selling the land. The new owner may test pump the well this year but the well otherwise will not be used in 2015. A flow meter on the re-lift pump would at least measure the comingled use of springs and water from Rattlesnake Ck so IDWR may require the owner to install a meter on the re-lift pump.

Hans Hayden right 29-10893 from Clifton Creek is diverted with rights 29-2144 and 29-7948 (both from Clifton Creek), using the same pump diversion from the creek. The pump is measured using a Seametrics magnetic flow meter. Rights 29-10893 & 29-7948 should have been added or identified with 29-2144 on row 14 of the excel spreadsheet/watermaster accounting report from February, 2015. I will update the report and add these two rights. This pump diversion from Clifton Creek is also authorized as a point of re-diversion for ground water right 29-7272, but it is not clear that this Clifton Creek pump can be used as a re-diversion for 29-7272 since the place of use for 29-7272 is further

downstream along Rattlesnake Ck and appears to be irrigated from a different system than this Clifton Creek pump. 29-7272 has a second point of re-diversion downstream on Rattlesnake Ck (see wheel line pump and Hayden Rattlesnake Pond "B" on diagram previously sent to you).

Russell Hayden right 29-480 and Hans Hayden right 29-13522 (both from Rattlesnake) are diverted from the same pump out of Rattlesnake Creek as right 29-13215. Rights 29-480 and 29-13522 should have been identified with 29-13215 on row 16 of the excel spreadsheet/watermaster accounting report. I will update the report and add these two rights. This pump diversion from Rattlesnake Creek is also the authorized point of re-diversion for ground water rights 29-7272 and 29-2509.

Twain and Hans Hayden right 29-7948 is from a spring source; the right has a 1976 priority. It is my understanding that this spring has not run in many years and there has been no diversion of water due to inadequate supply from the source. The watermaster can include this right/source in the annual report and show it as not used.

5. The rights for Hayden/Mid Chrystal Farms seem quite complex due to the overlapping nature of many of the rights. The following is a list of questions on the accounting of these rights:
- a. Is the same well used for rights 29-7110 and 29-7272? **Yes, the same well is used for both rights.**
 - b. Hayden right 29-2564 is not listed in either the 2014 accounting or the 2013 order requiring measurement. This right is for irrigation/stockwater/fish propagation storage for 2.2 AFA, and irrigates 3 acres from storage with 2.2 AFA . One of the IDWR water right maps shows the Place of Use (POU) to be separate from the POU of right 29-7110 in the SWSE section 3,T9S,R34E. Can the use of 20-2564 be estimated and included on a separate line in the 2014 accounting? **This is a small use under 5 acres, so it was not included in the measurement order. The use is not required to be measured and we do not see a need to include or estimate it in addition to the other larger Hayden diversions/uses.**
 - c. Your schematic of the Mid Crystal Farms rights shows a single diversion point from lower Clifton Creek up to the Box Car Well. Are the surface water diversion points on Clifton Creek for rights 29-2144, 29-7948, & 29-10893, the re-diversion point on Clifton Creek for groundwater right 29-7272, and the injection point into Clifton Creek for groundwater right 29-7949, all in the NWNW section 16,T9S,R34E, now a single common point that pumps into the Box Car well system and then onto the pivot as shown on your schematic? How much of the water from Right 29-7272 (which is injected into Clifton Creek upstream) is re-diverted out from Clifton Creek here in section 16 and how much continues on into Rattlesnake Creek for re-diversion in Section 8? If this is a common diversion and re-diversion point in section 16, how is this diversion measured and adjusted for injected water from 29-7272 & 29-7949? **All surface Clifton creek water, including injected well water, is measured at Point of diversion and enters a water distribution system near the well (box car 29-7949. It can be combined or used separately (usually separately) in several ways. Measurements are for all surface water on one meter and all well water on one meter. After the meters the water can move to pivots and various hand lines. This is usually managed by the surface flow available. Total consumptive use is always correct. (See comments on 5d.)**
 - d. Your schematic appears to show a single diversion out of Rattlesnake Creek , while IDWR water right maps show a diversion point for surface rights 29-480 & 29-13522 in the SWSE, and 2 re-diversion points for groundwater right 29-7949, a re-diversion point for groundwater rights 29-2509 & 29-7272, and a diversion points for surface water rights 29-480, 29-13215, and 29-13522 all in the NESW, which all lie in section 8, T9S,R34E. Are all these diversion and re-diversion points in section 8 now all at a common point, and if so, how is the measurement for surface water adjusted to account for re-diversion of groundwater injected into Clifton and Rattlesnake Creeks? **Ground water injected to creek**

under 29-7949 is measured separately. Water re-diverted from creek under surface water rights is measured separately and may include re-diverted ground water. Ground water injected can be subtracted from surface water diversion.

e. See later Comment#8 for more questions & comments on the Hayden/Mid Crystal rights.

6. The following rights on the 2014 accounting are not listed in the Nov. 23, 2013 order requiring measurements. The irrigated acres and the decreed volume limits are from the IDWR water right reports.:

Owner	Water Right #	Irr. Ac	Decreed Volume Limit, , AFA	DOWL comment
Hans Hayden	29-7110*	5	20	Right 29-7272 may use the same well-see Comment #5a above
Schatz	29-7697	4.5	18	
Bailey	29-10506	1.7	-----	Vol. limited to 1.4AF in any 14 day period
Bailey	29-10505	1.1	-----	Vol. limited to 0.92AF in any 14 day period
Bailey	29-10507	1.5	-----	Vol. limited to 1.25AF in any 14 day period
Bailey	29-10504	1.4	-----	Vol. limited to 1.2AF in any 14 day period
Feld	29-7184	2	7	
Hilliard	29-7130	5	17.5	
Jones	29-7913	5	20	
Thompson trust	29-12259	-----	20	Aesthetic storage use
Horne	29-13861	0.4	1.3	
Horne	29-13859	0.6	-----	
Power Cnty Hwy Dist.	29-7938	-----	0.6 each use	Commercial & domestic use
Curry	29-8066	-----	1.2	Commercial use
Lehman	29-7333	4	14	
Arbon school dist.	29-10549*	1	4	
Ames	29-13677	5	17.5	

*Water right is protected under Tribal right 29-12052.

It appears the above rights were not on the measurement order because of their relative small size. A discussion should occur among the various parties as to whether these rights should remain on the Bannock basin accounting and have their annual volume estimated, as their combined diversion volume amount could be significant.

See response to Question/Item no. 2 above. The rights in the table above are for irrigation of 5 acres or less, or they are deminimis use rights that meet the exemption requirements of Idaho Code § 42-111. The rights above were not included in the measurement order because the order specifically required installation of measuring devices for irrigation water rights and diversions greater than 5 acres. Questions regarding the “Bannock basin accounting” and whether the rights above need to be included so as to have tier annual volumes estimated should be deferred to Dave Shaw. IDWR does not intend to require measuring devices on these diversions but we are not opposed to estimating them using some methodology established between Dave Shaw and BIA. The water district is concerned about watermaster expenses and is looking to minimize costs, so I would advocate taking a simple approach to these small diversions with some limited verification or confirmation of water use by the watermaster.

7. The water source for the following rights listed in the 2014 accounting conflict with the source listed on the current IDWR on-line water right reports:

Owner	Water Right #	Source in 2014 Accounting	Source in IDWR Water Right Reports
Schatz	29-7697	Surface water	Ground water
Bailey	29-10506	Ground water	Knox Canyon Creek

Owner	Water Right #	Source in 2014 Accounting	Source in IDWR Water Right Reports
Bailey	29-10505	Ground water	Knox Canyon Creek
Bailey	29-10507	Ground water	Knox Canyon Creek
Bailey	29-10504	Ground water	Knox Canyon Creek
Feld	29-7184	Ground water	Michaud Creek
Hilliard	29-7130	Ground water	Unnamed stream
Michaud Cr. Ranches	29-2490	Ground water	Michaud Creek
Bollingbroke	29-13234	Rattlesnake Creek	Rattlesnake Creek & springs

Please verify that the sources listed above in the IDWR water right reports are correct.

IDWR response: The water right sources you list as per IDWR water right reports are correct. IDWR will update the 2014 report accordingly. These corrections should be visible on future annual watermaster water use reports.

8. The following table lists some DOWL comments on specific items in specific rights in the IDWR 2014 accounting, other than source of water:

Owner	Water Right #	Comment or questions
Cranney/G5 Land Co.	29-13949, 13950, 13951, 13952, 13985	<ol style="list-style-type: none"> Do these five rights pump from the same well? Yes How was the 951.6 AFA in the AF allotted column in the 2014 accounting derived—I get a combined right decreed volume by summing the individual rights for a total of 1369.8 AFA? The combined volume from all 5 rights is 1,387.2 AFA derived as follows: Rights 13950, 13952 & 13985 have a combined limit condition of 108.9 acres, and combined limit of 4.0 AFA, or 435.6 AFA for the 3 rights. 29-13949 is limited to 406.8 AFA and right 29-13951 is limited to 544.8 AFA, so all five rights are limited to 1,387.2 AFA. The 951.6 AFA was the sum of 13949 & 13951 but did not include the other 3 rights, so the 951.6 value was incorrect.
Ward	29-7291 29-7931A	<ol style="list-style-type: none"> These two rights apparently have separate wells and separate Places of Use. In addition, Right 29-7291 is protected under Tribal right 29-12052 and its measured diverted volume is to be counted in the equitable adjustment process while right 29-7931A has a priority date later than 1/1/1990 and hence is not protected under right 29-12052 and its measured volume is not counted in the equitable adjustment process. Therefore, the measured volume of rights 29-7291 and 29-7931A need to be separated from each other and not combined. The two water rights have separate POUs and PODs, but in reality there is only one well for the both rights. The only well used is the one described by 29-7931A. A water right transfer was filed to correct the POD location for 7291 but the transfer was protested and has not been resolved. The original well for 7291 failed a number of years ago and the owner began using the well from 29-7931A. 29-7931A is a permit and has not yet been licensed although a field exam was conducted. Issuance of the license has been delayed pending resolution of the transfer for 7291. Permits do not include volume limits. It is not clear if permit 7931A will add any additional volume to 7291. The volume listed in the report for the two rights is the maximum volume for 7291. IDWR does not intend to change or modify the report. 29-7931A has no volume limit listed in its water right report, therefore it is unclear if the 1305.2 AFA limit for 29-7291 shown in the 2014 accounting would apply to both rights combined. See response above.
Ward	29-13243	<ol style="list-style-type: none"> The 2014 accounting for this right from a spring for 15 acres has a blank for the measured volume. Is there a measurement device for this right—

Owner	Water Right #	Comment or questions
		it is included on the 2013 order for measurement? <i>This right was included in the 2013 measurement order. Water is not used or diverted from the spring source for right 29-13243 – measurement compliance therefore is not an issue. The watermaster report can be updated to show no use from the report.</i>
Williams trust	29-2237A	1. The AF allotted column in the accounting shows 0.14 cfs, but there is a water right decreed volume of 18.6 AFA for irrigation from storage. <i>This right was originally decreed with a diversion rate of 0.14 cfs for irrigation of 7 acres from creek but owner developed a pond and received an approved transfer in October, 2014 which changed POD and used from irrigation to irrigation storage and irrigation from storage. The 18.6 AFA is correct. The report has been updated.</i>
Hayden	29-7949	1. Although the only volume limit listed for this right is a combined volume of 1110 AFA for rights 29-144, 2509, 7272, 7948, and 7949, as shown in the comments in the 2014 accounting sheet, I assume that the measured volume is for the 29-7949 well only—is that correct?. <i>Yes, the measured volume shown in the 2014 report is for the well only.</i>
Hayden	29-2144	1. Depending on what diversion points are common to each other and how measurements are taken (see previous Comment #5), this right might be listed in the water right ID column in the accounting as combined surface water rights 29-2144, 7948, & 10893. <i>Yes, these are diverted together at one pump with water injected to creek from gw right 29-7949.</i> 2. If the rights 29-2144, 7948, & 10893 are combined due to a common diversion point as stated in right 29-7948, then the combined volume limit for these 3 rights per 29-7948 is 166 combined acres x 4 AFA = 664 AFA. <i>Correct.</i>
Hayden	29-7272 29-7110	1. Assuming these two rights have the same diversion point and well (see previous Comment #5a), then is the measured volume a combined amount for these 2 rights? <i>The same well is used for both rights. Use for 29-7110 is not measured – it is used for small pasture irrigation near well. Right 29-7110 is limited to 5 acres, but watermaster says actual irrigated area is about 1.5 to 2 acres, which is irrigated directly from well thru a mainline and rain birds. Water diverted under 29-7272 open discharges from same well to small ditch and is measured through a 3" Parshall flume before injection to Clifton Ck.</i> 2. The water right reports indicate the decreed volume for 29-7272 is 301.3 AFA as shown in the accounting. However, the reports indicate the decreed volume for right 29-7110 is 20 AFA, not 2.2 AFA as in the 2014 accounting. <i>Correct, report has been updated.</i>
Hayden	29-13215	1. Depending on what diversion points are common to each other and how measurements are taken (see previous Comment #5), this right might be listed in the water right ID column in accounting as combined surface water rights 29-480, 13215, & 13522. <i>These three rights are combined with gw rts 29-7272 and 2509 on 120.3 acres.</i> 2. There appears no combined volume limit for any or the combination of the above 3 surface water rights. <i>Correct. Total volume on lands under the 3 rights plus gw rt 29-7272 & 2509 is limited to 120.3 x 4 = 481.2 AF.</i>
Hayden	29-2509	1. If this measurement for 29-2509 is separate from that for the well for 29-7272/29-7110, shouldn't the volume limit in accounting be the 268 AFA listed in the water right 29-2509 report? <i>Correct – the report has been updated.</i>
Hayden	Not listed in	1. Should there be a new separate accounting line and measurement for

Owner	Water Right #	Comment or questions
	2014 accounting	Hayden storage right 29-2564? No, this is a small 2.2 AFA storage pond on Clifton Ck that is limited to stockwater use and occasional fish stocking for family outings according to watermaster. Owner does not irrigate from the pond. Use appears to be de-minimis and not subject to measurement or accounting. Watermaster stated that owner normally leaves pond head gate open for water to flow through for use under other Clifton Ck rights.
Hayden	Not listed in 2014 accounting	1. Right 29-7335 is another right for Hayden I found not listed on the 2014 accounting. Should there be a new accounting line for Hayden right 29-7335? This right (from a spring) lies in sec 32, T8S, R34E which is further downstream along Rattlesnake Creek from the other Hayden rights. See also previous Comment #4. This spring source is dry or has too little flow during irrigation season to be used for irrigation purposes as per owner and watermaster. No use in 2014. Watermaster could add additional row in report noting unavailable supply/flow from spring source.
Bailey	29-10506 29-10505 29-10507 29-10504	1. These rights are listed as separate groundwater rights on the 2014 accounting, but IDWR water rights reports & maps appear to indicate these 4 rights are surface water rights which all have the same POD on Knox Canyon Creek. The water right reports indicate each right has a total diversion volume limit in any 14 day period as follows: 29-10506:1.4AF; 29-10505:0.92AF; 29-10507:1.25AF; 29-10504:1.20AF. Should these rights be therefore combined in the 2014 accounting with a combined volume of $1.4+0.92+1.25+1.20=4.77$ AFA? As previously noted, these rights are from Knox Canyon Ck and they do have the same POD. The combined volume limit for four rights is 4.77 AFA. The report has been updated.
Hilliard	29-7130	1. The accounting for this right shows 0.1 cfs in the allotted AF column, but the right has a volume limit of 17.5 AFA per the water right report. Correct, report has been updated.
Horne	29-13859 29-13861	<p>1. The water right reports indicate these two rights have a common diversion point and a combined 1.0 irrigated acre. Right 29-13861 has a volume limit of 1.3 AFA while 29-13859 apparently has no volume limit. Should these two rights be combined for accounting purposes? Yes, the total volume limit is 1.3AFA. Report has been updated.</p> <p>2. These rights have no measured or estimated volume for 2014 and were not on the 2013 measurement order. Horne rights were not included in measurement order since total combined irrig acres under both right limited to only 1 acre. However, if rights are diverted with Hermann rights and total POU is greater than 5 acres under all rights, then the diversion should be measured. These Horne rights were not used in 2014 per watermaster.</p> <p>3. Rights 29-13859 & 13861 may also have the same diversion point as Herrman rights 29-13858 & 13860 also listed in the 2014 accounting. Yes, all four rights have same common POD as per water right records.</p>
Williams Hayball Bollingbroke Bollingbroke	29-10990 29-476 29-477 29-13234	1. These 4 rights share a common diversion point and ditch from Rattlesnake Creek. How are these diversions measured—are they measured at the Rattlesnake Creek diversion point, and if so, does each owner divert at separate times so that the measurement is by owner, or does more than one owner divert from Rattlesnake Creek at the same time and the measurement is a combined amount for the multiple owners? Alternatively, is measurement made at each owner's Place of Use? Measurement is made using a Parshall flume installed near head of ditch

Owner	Water Right #	Comment or questions
		<p>(9" throat width). Measurement is combined amount for all owners.</p> <p>2. If measurement is made for each owner, can the combined volume in the 2014 accounting be separated out for each owner? Measurement or re-diversions on ditch are not made by the watermaster so accounting can't be separated.</p> <p>3. Rights 29-477 and 29-13234 both divert from the common diversion point on Rattlesnake Creek, but storage right 29-13234 also diverts from a separate diversion point from local springs just upstream from the storage pond. How is this spring diversion measured or included in the measurement of these rights? See also next row for 29-10857. According to notes in our adjudication claim file, the pond receives water from both the spring and the ditch from Rattlesnake Ck. The spring diversion was not measured in 2014 and I am not certain if water was available to divert.</p> <p>4. How can right 29-13234 have 331 AFA from storage with only 2.1 AFA irrigation storage as noted on its water right report? The adjudication claim file notes indicate that ground water diverted under right 29-2565 also can be stored in same pond. Irrigation storage is from multiple fills. Storage volume is limited to 2.1 AF but notes indicate that total pond capacity is 5.2 AF, the balance is from ground water. Not likely that multiple fills actually can provide 331 AF but that is probably a limit based on maximum potential or theoretical calculation.</p> <p>5. See also other Bollingbroke rights below</p>
Bollingbroke	Other rights	<p>1. Bollingbroke uses 4 sources to irrigate his Place of Use:</p> <ol style="list-style-type: none"> Rattlesnake Creek, Right 29-477, included in accounting (see above) Well, Right 29-2565, included in accounting. Springs, Right 29-10857, not included in accounting but should be. Storage, Right 29-13234 (included in accounting) appears to use both the above noted Rattlesnake Creek & the springs. The storage use was not included in the accounting and was not measured. <p>2. How is the springs diversion measured? See also 29-13234 above. See prior responses.</p> <p>3. There is a combined acres limit for the above 4 rights of 409 acres, but I did not see any volume limits except for 29-2565 and 29-12334 (see above). Volume limits are not typically placed on surface water rights, but given that all 4 rights are limited to 409 acres, total maximum irrigation volume should be 4 AF/acre or 1,636 AF/yr, although actual div volumes probably much less due to water availability and volume limit of ground water right.</p>
Herman	29-13860 29-13858	<p>1. These two rights apparently have the same diversion point based on their water right records. Right 29-13860 has a diversion limit of 19.7 AFA, but 29-13858 apparently has no volume limit but a combined acre limit of 29-13858 & 13860 of 15 acres. Correct, the two rights together have a combined limit of 19.7 AFA as shown in the report.</p> <p>2. These two rights may also have the same diversion point as Horne rights 29-13859 & 13861. Correct – see prior response to Horne.</p>

9. The following table lists those groundwater rights in the 2014 accounting that are not protected under Tribal right 29-12052. The purpose of this list is to verify these rights were correctly not placed under protection of 29-12052:

Owner	Water Right #	Use	Irr. Ac	Priority date	In 2013 meas. order	DOWL Comments & Questions
Lehman	29-7333	Irrigation & Domestic	4	6/24/1976	No	Located near ESPA boundary in lower basin, therefore OK to exclude from protection.
Jarvis	29-7483	Irrigation & Domestic	13	2/10/1987	Yes	Located near ESPA boundary in lower basin, therefore OK to exclude from protection.
Schatz	29-7697	Irrigation & Domestic	4.5	4/6/1983	No	This license was on original 2012 preliminary protected rights list, but was removed in 2013 as explained in 6/12/2013 email from Shaw indicating this license was not claimed in the SRBA and hence is considered a right that no longer exists and is OK to exclude from protection. What is the current status of this license right?
Nelson	29-7868	Irrigation & Domestic	15	9/11/1989	Yes	Located near ESPA boundary in lower basin, therefore OK to exclude from protection.
Jones	29-7913	Irrigation & Domestic	5	4/3/1990	No	Located near ESPA boundary in lower basin & has post 1/1/1990 priority, therefore OK to exclude from protection.
Ward & Sons	29-7931A	Irrigation & Stockwater	547	3/15/1990	Yes	Has priority later than 1/1/1990, therefore OK to exclude from protection
Power Cnty Hwy Dist.	29-7938	Commercial & Domestic	----	3/16/1990	No	Has priority later than 1/1/1990, therefore OK to exclude from protection
Mid Crystal Farms/Hayden	29-7949	Irrigation	278 .4	5/16/1990	Yes	Has priority later than 1/1/1990, therefore OK to exclude from protection
Curry	29-8066	Commercial	----	4/17/1991	No	Has priority later than 1/1/1990, therefore OK to exclude from protection

This table shows none of the above rights qualify for protection under Tribal right 29-12052.

IDWR Response: This question should be addressed by Dave Shaw.

Please try to answer my questions posed in this memo. Thank you.