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March 27, 2023

Sent via email and U.S. Mail to: Gary Spackman, Director Mat Weaver, Assistant-Director Idaho Department of Water Resources 322 E. Front Street, Suite 648 Boise, ID 83702 gary.spackman@idwr.idaho.gov mathew.weaver@idwr.idaho.gov

> Re: ESPA Cities' 2022 Mitigation Report, as required by Surface Water Coalition-Idaho Ground Water Association-City Settlement Agreement

Gentlemen:

Please find attached the ESPA Cities' 2022 Mitigation Report. This report is required by the Surface Water Coalition-Idaho Ground Water Association-City Settlement Agreement, effective January 1, 2019.

If you have questions or concerns, don't hesitate to give me a call.

Best,

Jorh Klah

Sarah A. Klahn

Attachment

 cc: City of Pocatello: Rich Diehl, Justin Armstrong, Jeff Mansfield Heidi Netter, Spronk Water Engineers
 Bryan Ragan, P.E., IDWR
 Candice McHugh, Esq.
 Chris Bromley, Esq.
 Rob Harris, Esq.

ESPA Cities' 2022 Mitigation Report

I. INTRODUCTION

This report is assembled to satisfy the requirements of Article III of the Settlement Agreement Between the Surface Water Coalition, Participating Members of Idaho Ground Water Appropriators, Inc., and Signatory Cities (Final Settlement Agreement), effective January 1, 2019, requiring the Cities¹ to annually report groundwater diversions and mitigation activities. This report is also assembled pursuant to the requirements of a corollary agreement between and amongst the Signatory Cities, the Eastern Snake Plain Aquifer (ESPA) Agreement for Allocation of Mitigation Obligations under the Final Settlement Agreement (ESPA Mitigation Allocation Agreement).

II. SUMMARY OF 2022 MITIGATION ACTIVITIES

A. Groundwater Diversions

Pursuant to the Final Settlement Agreement, the groundwater pumping from each City for the period from 2018-2022 is shown in the attached <u>Table 1</u>. The five-year average annual volume of groundwater diverted by the Cities collectively was **84,991 acre-feet** ("af"). This includes pumping by the City of Aberdeen, City of Rigby, City of Ririe, City of Roberts, and the City of Sugar City, who are "Participating Cities" by virtue of executing an "Intent to Participate" form (attached as <u>Exhibit 1</u>).

B. Mitigation Activities

The terms of the Final Settlement Agreement obligate the Cities to supply mitigation water for aquifer enhancement or other mitigation activities ("Mitigation Obligation") averaging 7,650 af per year (af/y) on a five-year running average, with a minimum requirement to supply 1,000 af/y commencing January 1, 2019. The first compliance period will be assessed in 2024 for the period 2019-2023.

The Cities allocated the Mitigation Obligation amongst themselves on a basis that accounts for priority dates of each city's groundwater rights and average annual groundwater

¹ The cities obligated under the Final Settlement Agreement, hereinafter referred to as the "Signatory Cities," are the cities of Bliss, Burley, Carey, Declo, Dietrich, Gooding, Hazelton, Heyburn, Idaho Falls, Jerome, Paul, Pocatello, Richfield, Rupert, Shoshone, Wendell, Albion, Blackfoot, Atomic City, Rexburg, Ammon, and Iona.

Further, pursuant to paragraph 2 of the ESPA Mitigation Allocation Agreement and Article I.B of the Final Settlement Agreement, additional cities that divert water from the ESPA may obtain the same protections as the Signatory Cities under the agreements by executing a Notice of Intent to Participate by December 15 of the year prior ("Participating Cities"). This Report refers to Signatory Cities and Participating Cities collectively as the "Cities."

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pumping. To satisfy the Mitigation Obligation, each City may lease water from Pocatello, Water District 01, or other suppliers, or supply mitigation arising from its own water supplies. While the original Final Settlement Agreement specified mitigation via aquifer enhancement projects consistent with paragraphs II.A.2.a. and b. as means of mitigation, in August of 2022, due to the extraordinary drought, the parties to the Final Settlement Agreement executed an Agreement for Direct Delivery in Lieu of Aquifer Enhancement Activities (Direct Delivery Agreement). The Direct Delivery Agreement, attached as <u>Exhibit 2</u>, specifically allows the Cities to receive mitigation credits for water directly delivered to the Surface Water Coalition ("SWC").

In 2022, the Cities supplied **7,726.7 af** of mitigation water. As reflected in <u>Exhibit 3</u>,² **6,290.2 af** of water was supplied directly to American Falls Reservoir District No. 2 ("AFRD #2") pursuant to the Direct Delivery Agreement. An additional **504 af** was recharged by the City of Idaho Falls and **571.3 af** was recharged by the City of Rexburg. Lastly, the City of Idaho Falls, by virtue of completing surface-to-groundwater conversion projects, mitigated an additional **361.2 af**. <u>Table 2</u> reflects the breakdown of mitigation activities conducted using water leased from Pocatello and other users' own water supplies:

- 1. <u>Pocatello and other Cities</u>.³ Direct delivery to AFRD #2 of Pocatello's Palisades Reservoir storage water.
 - a. The assignment of **6,290.2 af** of Pocatello's Palisades Reservoir storage water was provided directly to AFRD #2 to satisfy a portion of the Mitigation Obligation.
- 2. <u>Idaho Falls</u>. Idaho Falls supplied mitigation water through recharge, direct deliveries, and groundwater-to-surface water conversion projects.
 - a. Idaho Falls recharged water at a recharge site known as the "Sand Creek Site." The Sand Creek Site is an authorized recharge site under the Final Settlement Agreement as described in paragraph II.A.2.b because it has a five-year retention time of 17.8 percent, which exceeds the minimum required retention time of 17.5 percent. Idaho Falls recharged a total of **504 af** at the Sand Creek Site. The water was supplied from storage allocated to Idaho Falls' shares in Palisades Water Users, Inc. See Exhibit <u>4</u>, 2022 Idaho Falls Groundwater Mitigation Report, at p. 3.

² Email correspondence between WD01 Watermaster Tony Olenichak and Kent Fletcher et al., dated September 14, 2022.

³ Rexburg is a Signatory City, but it conducted mitigation activities pursuant to its Water Right, No. 22-13888; its recharge amounts listed here are those in excess of the amount required by the Water Right. Idaho Falls is also a Signatory City, but it too conducted mitigation activities from other water sources.

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- b. Idaho Falls also constructed two groundwater-to-surface water conversion projects that qualify as mitigation efforts on a 1:1 basis under Paragraph II.A.2.c. of the Final Settlement Agreement, thereby entitling them to 361.2 af of mitigation credits. *See id.* at pp. 4-5.
- 3. <u>Rexburg</u>. Rexburg recharges water in Walters Pond as a term and condition of Water Right No. 22-13888, and in 2022 recharged water in excess of what is required under the Water Right approval.
 - a. Rexburg provided **571.3 af** of recharge for the Final Settlement Agreement. *See* Exhibit 5.⁴

III. PROJECTION OF 2023 MITIGATION ACTIVITIES

Under the Final Settlement Agreement, the Cities are obligated to mitigate at least 1,000 af/y. With a total mitigation supply in 2022 of **7,726.7 af**, the Cities substantially exceeded that requirement. In 2019, 2020, and 2021, the total recharge amount was **8,169.4** af, **7,813.8 af**, and **7,247.4 af**, respectively. The four-year average for 2019-2022 is **7,739.3 af**, which exceeds the 7,650 af average annual Mitigation Obligation.

In 2023, as in 2019-2022, the Cities are obligated to recharge at least 1,000 af/y. During 2023, the Signatory Cities will attempt to exceed the 1,000 af/y mitigation requirement and ensure its five-year mitigation supply average exceeds 7,650 af/y through recharge, direct delivery, or other means authorized under Paragraph II.A.2. of the Final Settlement Agreement and/or subsequent agreements. Fortunately, early projections indicate that there will be some new fill available in Palisades Reservoir that the Cities can use to supply mitigation water to the SWC.

IV. CONCLUSION

The Cities collectively supplied **7,726.7 af** of mitigation water in 2022, in compliance with the terms of the Final Settlement Agreement.

⁴ Letter from the City of Rexburg to Sarah Klahn, dated June 7, 2022.

Table 1
Summary of WMIS Annual Pumping Totals by City
2010 - 2022 (Acre-Feet)

														2010-2014	2016-2020	2017-2021	2018-2022
City	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average	Average	Average	Average
Aberdeen	1,004	1,033	922	853	859	816	1,042	1,016	1,188	1,002	1,034	1,067	993	934	1,056	1,061	1,057
Ammon	1,857	1,987	2,439	2,579	6,204	6,579	6,589	6,266	6,581	5,237	5 <i>,</i> 453	5 <i>,</i> 504	5,390	3,013	6,025	5,808	5,633
Blackfoot	3,514	3,588	4,288	4,350	3,993	3,963	4,158	3,198	4,124	4,066	4,154	4,398	4,159	3,947	3,940	3,988	4,180
Bliss	110	229	260	281	143				37		54			205	45	45	45
Burley	5,331	5,464	5,573	6,729	6,746	7,232	7,505	6,838	7,037	5,943	6,827	6,904	6,904	5,969	6,830	6,710	6,723
Carey	111	113	128	119	126	128	129	132	127	118	141	159	233	119	129	135	156
Declo	100			83	207	83	78	66	121	108	141	156	150	130	103	118	135
Dietrich	56	47	53	69	68	69	65	63	81	66	81	98	96	59	71	78	84
Firth									179	184	206	216	204		190	196	198
Gooding	1,146	259	1,500	904	1,365	1,535	874	1,084	1,252	1,152	1,428	1,418	1,347	1,035	1,158	1,267	1,320
Hazelton	77	114	128	56	90	91	85	101	101	87	69	68	71	93	89	85	79
Heyburn	471	457	705	1,334	598	502	622	569	572	538	562	548	514	713	573	558	547
Idaho Falls	25,023	24,714	27,530	26,776	27,170	27,443	27,418	26,198	25,534	23,466	26,722	27,989	26,555	26,243	25,868	25,982	26,053
Iona	731	734	964	952	1,018	1,056	1,143	1,006	942	918	1,195	1,214	904	880	1,041	1,055	1,035
Jerome	2 <i>,</i> 358	341	2,137	1,701	1,959	1,897	2,655	2,574	5,336	3,399	3,602	3 <i>,</i> 933	3,933	1,699	3,513	3,769	4,041
Paul	377	370	414	432	356	369	309	376	350	407	404	425	424	390	369	392	402
(1) Pocatello	15,081	14,182	16,452	14,715	14,315	14,355	14,450	13,866	14,736	13,917	14,938	15,399	14,558	14,949	14,381	14,571	14,710
(1) Pocatello (Irr)	1,865	1,597	1,969	1,782	3,092	2,965	3,184	2,877	2,927	2,670	2,930	2,577	2,561	2,061	2,918	2,796	2,733
Rexburg	3,269	2,487	2,174	1,360	309	1,671	1,733	1,088	4,943	4,848	5 <i>,</i> 053	5 <i>,</i> 934	6,134	1,920	3,533	4,373	5,382
Richfield	775		608	932	902	862	812	824	869	886	911	903	903	804	860	879	895
Rigby	2,096	2,424	2,936	2,696	1,625	1,850	2,497	2,816	2,928	2,451	2,758	2,666	1,720	2,355	2,690	2,724	2,504
Ririe	609	534	490	412	348	319	375	336	284	271	291	350	325	479	312	307	304
Roberts		71	115	89	88	74	73	74	77	26	75	137	145	91	65	78	92
Rupert	3,942	6,476	7,546	7,345	4,696	4,746	4,580	3,975	4,770	7,085	2,671	5,547	3,309	6,001	4,616	4,809	4,676
Shoshone	674	550	815	815	796	858	840	979	794	635	730	988	773	730	796	825	784
Sugar City	566	549	537	497	313	425	545		372	486	535	364	457	492	485	439	443
Wendell	740	849	791		817			864	842	706	746	803	803	799	790	792	780
Total	71,883	69,172	81,476	77,862	78,204	79 <i>,</i> 890	81,762	77,188	87,103	80,671	83,713	89,767	83,566	76,110	82,445	83,843	84,991

Source:

2010 - 2014 data from spreadsheet provided by IDWR (Cindy Yenter).

2015 - 2022 data from IDWR website (https://research.idwr.idaho.gov/apps/WaterManagement/WMIS/DataSummary.aspx).

Notes:

No data shown as gray highlighted cells. 2022 values are provisional.

(1) Pocatello municipal pumping data provided by the City of Pocatello. Pocatello irrigation pumping from biosolids wells from WMIS.

Table 2Summary of Disposition of Annual Mitigation VolumesESPA Cities Mitigation Plan

(acre-feet)

Mitigation Supplies	2019	2020	2021	2022	2023
Pocatello Palisades Reservoir Water Assigned to IWRB	6,307.8	3,897.7			
(1) Pocatello Palisades Reservoir Water Leased for Direct			5,495.8	6,290.2	
Delivery to Surface Water Coalition					
Blackfoot Recharge at Jensen's Grove Site	345.0	345.0			
(2) Idaho Falls Recharge at Sand Creek Site	1,516.6	3,365.0	1,350.0	504.0	
Idaho Falls Recharge of Leased Common Pool Supply			42.0		
Idaho Falls Groundwater-to-Surface water Conversion				361.2	
(3) Rexburg Recharge at Walters Pond		206.1	359.6	571.3	
Total	8,169.4	7,813.8	7,247.4	7,726.7	
Running Average		7,991.6	7,743.5	7,739.3	

Notes:

(1) Water supplied from Pocatello's storage account for direct delivery to AFRD No. 2.

(2) Recharge occurred between August 2, 2022 and September 18, 2022.

(3) Recharge occurred between April 15, 2022 and May 13, 2022.

Exhibit 1

CITY OF _____ NOTICE OF INTENT TO PARTICIPATE

As permitted under the terms and conditions of the Settlement Agreement Between the Surface Water Coalition, Participating Members of Idaho Ground Water Appropriators, Inc., and Signatory Cities (the "Final Settlement Agreement" attached hereto as Exhibit A) and the terms of an associated agreement-the ESPA City Agreement for Allocation of Mitigation Obligations Under the Final Settlement Agreement (the "Internal Agreement" attached hereto as Exhibit B), the City of ____("___") hereby provides the following notice.

- 1. Legal Effect of Notice. ______ agrees to fully participate and become legally bound as though _____ was a party to the *Final Settlement Agreement* and the *Internal Agreement*.
- 2. **Responsibility To Perform Aquifer Enhancement Actions.** In providing this notice, ______understands and agrees that it will be responsible to undertake its allocated share of aquifer enhancement actions as described in paragraph II.A of the *Final Settlement Agreement*.
- 3. Calculation of Aquifer Enhancement Obligation. _____ agrees to the methodology used to determine its yearly aquifer enhancement obligation calculated pursuant paragraph 3.b of the *Internal Agreement*.
- 4. Compensation of Signatory Cities for Amounts of Water Already Leased. The cities that executed the *Final Settlement Agreement* have leased amounts of water to satisfy the 7,650 acre-foot average annual mitigation requirement under the *Final Settlement Agreement*. Had _____ been a signatory, those amounts leased would have been reduced by a collective total of 99 acre-feet. In order to participate in the Final Settlement Agreement, _____ will make out checks for \$_____ to each of the 21 cities on the attached list, and a check for \$500 for the administration costs made out to McHugh Bromley, for a total of \$_____1 will then mail all of these checks to McHugh Bromley, PLLC at PO Box 554,

- \$20.00 per acre-foot x _____ acre-feet (for a total of \$____);
- \$2 per acre-foot for the City of Pocatello's administrative costs for a total of (for a total of \$____);
- The "Administrative Fee" (defined under Rental Pool Rule 2.3) of \$1.30 per acre-foot (for a total of \$____) charged by Water District 1;
- The "Board Surcharge" (defined under Rental Pool Rule 2.9) charged by the Idaho Water Resource Board ("IWRB") (for a total of \$____) which is equal to 10% of the total rental price;
- \$8 per acre-foot to be paid to IWRB for conveyance costs associated with IWRB's recharge efforts for municipalities under the Final Settlement Agreement (for a total of \$____).
- \$500 administrative fee to cover engineering costs and administrative costs related to determination of _____'s share of the 7,650 acre-feet.

¹Using the agreed upon methodology in <u>Attachment B</u>, _____'s share of the 7,650 acre-feet of mitigation would have been _____ acre-feet; however, that _____ acre-feet is already accounted for amongst the ESPA Cities leased obligations. The \$_____ is broken down as:

Meridian, ID 83680, to be distributed to the appropriate cities and a portion of the administrative costs to the water engineers responsible for the technical analysis.

CITY OF ____

By _____

Printed Name:

Title:

ESPA CITIES LEASING WATER FROM POCATELLO TO SATISFY THE FINAL SETTIEMENT A CREEMENT AND IDENTIES OF LECAL REPRESENTATIVE						
Send ALL CHECKS TO	Cities	Amount of Check				
Candice McHugh	McHugh Bromley, PLLC	\$500.00				
McHugh Bromley	Atomic City	\$				
PO Box 554	Bliss					
Meridian, ID 83680	Burley					
	Carey					
	Declo					
	Dietrich					
	Gooding					
	Hazelton					
	Heyburn					
	Jerome					
	Paul					
	Richfield					
	Rupert					
	Shoshone					
	Wendell					
	Ammon					
	Idaho Falls					
	Iona					
	Blackfoot					
	Firth					
	Rexburg					
	TOTAL:	\$				

AGREEMENT FOR DIRECT DELIVERY IN LIEU OF AQUIFER ENHANCEMENT ACTIVITIES (2022)

This Agreement for Direct Delivery in Lieu of Aquifer Enhancement Activities ("Agreement") is entered into between the Surface Water Coalition (SWC)¹, participating members of Idaho Ground Water Appropriators, Inc. (IGWA)², and the Signatory Cities (Cities).³

WHEREAS, the SWC, IGWA, and the Cities entered into a Settlement Agreement in 2018 by which the Cities agreed to mitigate for their diversions of groundwater from the Eastern Snake Plain Aquifer ("ESPA"); and

WHEREAS, on February 25, 2019, the Cities submitted the Settlement Agreement to the Idaho Department of Water Resources ("IDWR") as a stipulated mitigation plan under Rule 43 of the Rules for Conjunctive Management of Surface and Ground Water Resources in IDWR Docket No. CM-MP-2019-001; and

WHEREAS, IDWR approved the Settlement Agreement as a stipulated mitigation plan by way of the Final Order Approving Stipulated Mitigation Plan issued April 9, 2019 ("Order Approving Mitigation Plan"); and

WHEREAS, the Settlement Agreement requires the Cities to supply water for mitigation purposes, and that "All mitigation water will be used for aquifer enhancement projects on the ESPA unless the Parties agree otherwise in writing" (Settlement Agreement, section II.A.1);

WHEREAS, the Water District 1 reservoir system did not fill in 2022 and the 2022 irrigation season across southern and eastern Idaho has experienced above-normal temperatures and below-normal precipitation; and

WHEREAS, given the extreme water supply conditions being experienced this irrigation season, the SWC has requested that the Cities supply mitigation water directly to the SWC instead of conducting aquifer enhancement activities; and

¹ The Surface Water Coalition ("SWC") consists of A&B Irrigation District, American Falls Reservoir District No. 2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company.

² The participating members of Idaho Ground Water Appropriators, Inc. are Aberdeen-American Ground Water District, Bingham Ground Water District, Bonneville-Jefferson Ground Water District, Carey Valley Ground Water District, Henry's Fork Ground Water District, Jefferson-Clark Ground Water District, Madison Ground Water District, Magic Valley Ground Water District, North Snake Ground Water District, and Southwest Irrigation District. The acronym "IGWA" is used in this Agreement to refer to all of these Districts collectively.

³ The cities of Bliss, Burley, Carey, Declo, Dietrich, Gooding, Hazelton, Heyburn, Idaho Falls, Jerome, Paul, Pocatello, Richfield, Rupert, Shoshone, and Wendell are referred to in this Agreement individually as a "Signatory City" and collectively as the "Signatory Cities." The SWC, IGWA, and Cities are referred to herein individually at "Party" and collectively as the "Parties."

WHEREAS, the SWC views such delivery as a limited emergency water supply action and recognizes the delivery of storage instead of using that water for recharge will result in that amount of water not being directed into the aquifer this year; and

WHEREAS, the Idaho Department of Water Resources has indicated by email dated June 24, 2022, that the agency does not object to the Cities supplying storage water directly to the SWC in lieu of conducting acquire enhancement activities; and

WHEREAS, the Parties desire to confirm that storage water delivered directly to the SWC under this Agreement will be counted in 1:1 in the five-year rolling average calculation required for determining the Cities' compliance with their mitigation obligation under section II.A of the Settlement Agreement;

THEREFORE, the Parties agree as follows:

- 1. The Cities may deliver up to 6,656.3 acre-feet of storage water directly to the SWC for the 2022 irrigation season in lieu of conducting aquifer enhancement activities pursuant to section II.A of the Settlement Agreement.
- 2. The total volume of storage water that the Cities deliver to the SWC under section 1 of this Agreement shall be counted, as provided for in section II.a.2 of the Settlement Agreement, 1:1 in the five-year rolling average calculation associated with determining the Cities' compliance with their mitigation obligation under sections II.A and II.C of the Settlement Agreement.
- 3. The Parties agree that to the extent necessary, this Agreement is intended to modify for one-year (until the 2023 irrigation season) the Cities' Mitigation Plan and will not create a cause of action for any of the Parties individually to allege that the Cities have not complied with their Mitigation Plan.

RACINE OLSON, PLLP

8/18/2022 T. J. Budge Date

For ABERDEEN-AMERICAN FALLS GROUND WATER DISTRICT, BINGHAM GROUND WATER DISTRICT, BONNEVILLE-JEFFERSON GROUND WATER DISTRICT, CAREY VALLEY GROUND WATER DISTRICT, JEFFERSON CLARK GROUND WATER DISTRICT, MADISON GROUND WATER DISTRICT, MAGIC VALLEY GROUND WATER DISTRICT, NORTH SNAKE GROUND WATER DISTRICT, HENRY'S FORK GROUND WATER DISTRICT

SOUTHWEST IRRIGATION DISTRICT

Brown./Chairman

FLETCHER LAW OFFICE

8-19-2022

W. Kent Fletcher Date

For AMERICAN FALLS RESERVOIR DISTRICT #2 and MINIDOKA IRRIGATION DISTRICT

BARKER ROHSOLT & SIMPSON LLP

8/18/22

Travis L. Thompson

Date

For A&B IRRIGATION DISTRICT, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY and TWIN FALLS CANAL COMPANY

AGREEMENT FOR DIRECT DELIVERY IN LIEU OF AQUIFER ENHANCEMENT ACTIVITIES (2022)

SOMACH SIMMONS & DUNN

anh Klah

8/18/2022

Sarah A. Klahn

Date

For CITY OF POCATELLO

HOLDEN KIDWELL HAHN & CRAPO PLLC

August 18, 2022

Robert L. Harris

Date

For CITY OF IDAHO FALLS

MCHUGH & BROMLEY PLLC

Candice M Hugh

for August 19, 2022

Chris Bromley

Date

For CITIES OF BLISS, BURLEY, CAREY, DECLO, DIETRICH, GOODING, HAZELTON, HEYBURN, JEROME, PAUL, RICHFIELD, RUPERT, SHOSHONE, AND WENDELL

Exhibit 3

From: Olenichak, Tony <Tony.Olenichak@idwr.idaho.gov>
Sent: Wednesday, September 14, 2022 4:33 PM
To: Kent Fletcher <wkf@pmt.org>
Cc: Sarah Klahn <sklahn@somachlaw.com>; Travis Thompson <tlt@idahowaters.com>; John K
Simpson <jks@idahowaters.com>; BWCC Manager <MANAGER@BIGWOODCANAL.COM>; Ellis
Gooch <goochfarms@live.com>
Subject: RE: SWC Cities Mitigation water

Kent,

The amount supplied by the cities totaled only 6,290.2 AF. That amount will likely be approved and added to AFRD2's storage account in the water right accounting no later than next Tuesday.

Tony

From: Kent Fletcher <<u>wkf@pmt.org</u>>
Sent: Wednesday, September 14, 2022 3:00 PM
To: Olenichak, Tony <<u>Tony.Olenichak@idwr.idaho.gov</u>>
Cc: Sarah Klahn <<u>sklahn@somachlaw.com</u>>; Travis Thompson <<u>tlt@idahowaters.com</u>>; John K
Simpson <<u>jks@idahowaters.com</u>>; BWCC Manager <<u>MANAGER@BIGWOODCANAL.COM</u>>; Ellis
Gooch <<u>goochfarms@live.com</u>>
Subject: SWC Cities Mitigation water

Tony,

Pursuant to the mitigation agreement entered into between various cities and the Surface Water Coalition, the cities provide mitigation water each year. Usually the water is used for recharge, but this year, as was done last year, the cities have agreed to provide some of the water directly to the SWC.

The SWC decided this week to assign all of the direct delivery cities' mitigation water to American Falls Reservoir District #2. Pursuant to the document signed this year by the SWC and cities, I believe the total amount of water to be assigned for direct delivery to AFRD2 is 6,656.3 AF.

If there are any questions please contact me. Thanks.

Kent Fletcher Fletcher Law Office P.O. Box 248 Burley, ID 83318 208-678-3250 208-878-2548 (fax) wkf@pmt.org

Exhibit 4

2022 Idaho Falls Groundwater Mitigation Report

Eastern Snake Plain Aquifer Mitigation Values Through Managed Aquifer Recharge, Direct Delivery, and Irrigation Conversion Projects



Submitted By

David Richards, P.E., Water Superintendent

City of Idaho Falls Public Works Department

March 2023



Sand Creek Recharge Site Background

The City of Idaho Falls' (City) Sand Creek Recharge Site (Site) is a managed recharge facility designed to recharge the Eastern Snake Plain Aquifer with surface water from Sand Creek. The Site, shown in Figure

1, is located between Sand Creek Golf Course and Sandy Downs, being situated just north of E 65th South and west of Sand Creek. The Site lies on property currently owned by the City of Idaho Falls and provides 5-year aquifer retention time according to the ESPAM2.1 groundwater model.

Originally a small gravel and sand excavation pit, the site was prepared for recharge activities in July 2017 when an eagle scout project, shown in Figure 2, was approved to remove piles of trimmed tree and shrub branches that had been dumped within the pit. Once branches were cleared out and removed by the City's Sanitation Division, the City installed a diversion gate in Sand Creek (Figure 3) along with a 24" supply pipeline from Sand Creek to the Site. An ultra-sonic flow meter was installed within a manhole constructed over the supply



Figure 1 – Sand Creek recharge site vicinity

pipeline. This meter was selected due to its measurement capabilities and its ability to produce measurements without the need for on-going calibration. The project was completed in 2018 utilizing City funds.



Figure 2 – Eagle scout project to clear the recharge site

The City also contracted with Rocky Mountain Environmental Associates, Inc. (RMEA) to generate a Groundwater Quality Monitoring Program (GQMP) which was submitted to the Idaho Department of Environmental Quality (IDEQ) in November 2018 for review and comment. Following the IDEQ review process, the site was ready for use. Recharge activities officially commenced in April 2019 and proceeded throughout that summer. Sampling results from 2019 were subsequently evaluated by the IDEQ and sampling parameters were revised accordingly for future recharge seasons. Periodic water quality samples were taken from the

surface water source along with two wells, one up-gradient and another down-gradient of the recharge site. Samples were tested for inorganics, nutrients, metals, volatile organic compounds, bacteria, and field parameters according to the revised GQMP, at varied intervals dependent upon whether or not recharge activities were on-going.

Managed Aquifer Recharge Activity at Sand Creek Recharge Site (504.0 Acre-feet)

Although efforts were delayed due to a lack of natural flow generated from flood control releases, managed aquifer recharge (MAR) at the Sand Creek Recharge Site began in August 2022. Recharge

water at the site was provided by 504.0 acre-feet of storage water allocated to shares in Palisades Water Users, Inc. (PWUI). The City followed all applicable provisions of the Water District 1 2022 Rental Pool Procedures. Water allocated to these shares was diverted to the Sand Creek site between August 2 and September 18, 2022, after which diversion of flow into the pond from Sand Creek ceased as the City was able to recharge the full 504 acrefeet allotment. Figure 4 indicates the weekly MAR amounts during 2022 for the Sand Creek Recharge Site.

Flow into the Sand Creek recharge site was measured with an ultra-sonic flow meter installed within a manhole on the 24" supply line feeding the site, providing flow readings in 15-minute increments. Inflow varied dependent upon the highwater level of the creek and City personnel had to monitor the site daily to adjust the diversion gate in attempts to keep the pond full.



Variations in flow were largely due to irrigation uses during hot & dry season, but when the creek was full, flow ranged between 2,000 to 3,000 gallons per minute (gpm). Figure 3 – Sand Creek Recharge head gate



Figure 4 – Weekly cumulative MAR volumes at Sand Creek Recharge Site in 2022

Direct Delivery (2,000.0 Acre-feet)

The City of Idaho Falls also provided 2,000 acre-feet of storage water via direct delivery to the Surface Water Coalition (SWC) per its request in addition to the volume recharged at the Sand Creek recharge site. These 2,000 acre-feet were provided through a storage water lease with the City of Pocatello.

Groundwater to Surface Water Conversions (361.2 Acre-feet Annually)

In 2021, construction of two groundwater to surface water conversion projects were completed in Idaho Falls, one at Pinecrest Golf Course and another at the College of Eastern Idaho (CEI). These aquifer

enhancement activities qualify on a 1:1 basis towards meeting the City's mitigation obligations pursuant to provision II.A.2.c of the 2018 settlement agreement between the SWC and signatory cities to the agreement.

Pinecrest Golf Course, encompassing 120 assessed acres in the Idaho Irrigation District, has traditionally been watered with groundwater from the City's culinary water system. Although assessed 120 acres, the use of aerial photography indicates that the irrigable area after development totals 107.6 acres as shown in Figure 5.

During summer 2021, the golf course was retrofitted with an 18" supply line (Figure 6) from a



Figure 5 – Pinecrest Golf Course Converted Irrigable Area

new diversion structure in the Idaho Canal (Figure 7) to an irrigation pump station constructed on golf course property. A second, concurrent project fully replaced the existing golf course sprinkling system.



A similar conversion project was completed for the CEI campus through S&A Engineers, PC. Aerial photography was again utilized to determine the acreage of converted landscaping which totaled 34.05 acres as shown in Figure 8. The 2022 irrigation season was the first season in which both surface water sprinkling systems were fully utilized.

Figure 6 – Pi est Golf Course 18" Supply Li Instal

Calculations to determine the seasonal mitigation benefit derived from both conversion projects were based on the irrigable area for both the Pinecrest Golf Course (107.6 acres) and CEI campus locations



Figure 7 – Pinecrest Golf Course Diversion on Idaho Canal

Idaho Falls (776 mm or 2.55 acre-feet per year as provided for the Idaho Falls FAA Airport weather station) as published by the University of Idaho's Kimberly Research and Extension Center (the "ETIdaho website).

Using these values allows for the calculation of an annual mitigation for each conversion project, totaling 274.4 acre-feet for Pinecrest Golf Course and 86.8 acre-feet for CEI for an overall total of 361.2 acre-feet. It is fully anticipated that these properties will continue to utilize surface water for irrigation in future years, thereby entitling the City with mitigation credit of 361.2 acre-feet each year.

Total 2022 City of Idaho Falls Mitigation

In summary, the City of Idaho Falls supplied mitigation for the 2022 irrigation season in accordance with the agreement between the SWC and Coalition of Cities. Mitigation was provided by MAR totaling 504 acre-feet, by direct delivery to the SWC totaling 2,000 acre-feet, and through two groundwater to surface water conversions totaling 361.2 acre-feet. Combining all mitigation sources (34.05 acres). Acreage from each location was multiplied by the precipitation deficit value for irrigated turf grass during a growing season in



Figure 8 – College of Eastern Idaho Converted Irrigable \mbox{Area}_6

yields a 2022 total mitigation volume of **<u>2,865.2 acre-feet</u>** for the City. Figure 9 contains a chart identifying the annual recharge/mitigation volume by source for the City of Idaho Falls in 2022.



Figure 9 – City of Idaho Falls total recharge volumes by source in 2022



CITY OF

America's Family Community



June 7, 2022

Somach Simmons & Dunn Attn: Sarah Klahn 2033 11th Street Suite 5 Boulder, Colorado 80302

Dear Sarah,

The purpose of this letter is to give a report of the recharge accomplished by the City of Rexburg to meet its 2022 obligation from the City's involvement with the Settlement Agreement Between the Surface Water Coalition, Participating Members of Idaho Ground Water Appropriators, Inc., and Signatory Cities.

It is our understanding that the City of Rexburg was obligated to recharge 437.8 Acre-Feet in 2022.

The City completed this recharge in the spring, prior to beginning the recharge to meet the City's other obligations. The following summarizes the daily water diverted from the South Fork of the Teton River to Walters Pond to meet the City's recharge obligation.

Date	Volume Recharged (Acre-Ft)	Date	Volume Recharged (Acre-Feet)		
4/15/2022	22.1	4/30/2022	19.7		
4/16/2022	20.9	5/1/2022	19.7		
4/17/2022	20.9	5/2/2022	19.7		
4/18/2022	20.9	5/3/2022	22.1		
4/19/2022	18.4	5/4/2022	22.1		
4/20/2022	18.4	5/5/2022	14.7		
4/21/2022	18.4	5/6/2022	14.7		
4/22/2022	25.8	5/7/2022	20.9		
4/23/2022	19.7	5/8/2022	20.9		
4/24/2022	19.7	5/9/2022	20.9		
4/25/2022	19.7	5/10/2022	22.1		
4/26/2022	22.1	5/11/2022	18.4		
4/27/2022	14.7	5/12/2022	18.4		
4/28/2022	22.1	5/13/2022	14.7		
4/29/2022	18.4				
		Total	571.3 Acre-Feet		

Please let we know if you have any questions about this report.

Respectfully,

Junto U Beard

Justin V. Beard, P.E. Assistant Public Works Director

CC: Heidi Welsh, Spronk Water Engineers