# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

**DECEMBER XX, 2024**

## ACRONYMS

| | |
|---|---|
| AF | Acre-Feet |
| BWCC | Big Wood Canal Company |
| BWLWWUA | Big Wood Little Wood Water Users Association |
| BWRGWMA | Big Wood River Ground Water Management Area |
| CIEF | Conservation, Improvement, and Efficiency Fund |
| CFS | Cubic-Feet per Second |
| CREP | Conservation, Reserve and Enhancement Program |
| ESPA | Eastern Snake Plain Aquifer |
| GGWD | Galena Ground Water District |
| GWCU | Ground Water Consumptive Use |
| GWD(s) | Ground Water District(s) |
| IDWR | Idaho Department of Water Resources |
| IWRB | Idaho Water Resource Board |
| KAF | Thousand Acre-Feet |
| NGOs | Non-Governmental Organizations |
| NRCS | Natural Resources Conservation Service (United States) |
| NWRFC | Northwest River Forecast Center |
| SRBA | Snake River Basin Adjudication |
| SVGWD | South Valley Ground Water District |
| SVC | Sun Valley Company |
| SVWSD | Sun Valley Water and Sewer District |
| TWG | BWRGWMA Technical Working Group |
| USGS | Unites States Geological Survey |
| WD37 | Water District No. 37 |
| WD37B | Water District No. 37B |
| WD37B GWA | Water District 37B Ground Water Association |
| WRRCDC | Wood River Resource Conservation and Development Council |

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# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

## I. INTRODUCTION

This document is the ground water management plan ("Management Plan") for the Big Wood River Ground Water Management Area ("BWRGWMA"). This Management Plan describes water management actions intended to manage the effects of ground water withdrawals on the aquifer in the BWRGWMA by reducing ongoing consumptive uses of water, augmenting the water supply, and improving water use efficiency.

The Management Plan is separate from the *Management Policy for the Big Wood River Ground Water Management Area* issued on June 28, 1991, ("1991 Policy") in connection with the Idaho Department of Water Resources' ("IDWR" or "Department") order designating the Big Wood River Ground Water Management Area ("Management Area Order"). The Management Area Order and 1991 Policy are in Appendix A. The 1991 Policy limits the development of ground water for new consumptive uses within the BWRGWMA. IDWR may replace the 1991 Policy with a moratorium order. See Section VIII below.

## II. BACKGROUND

The BWRGWMA includes that portion of the Big Wood River drainage upstream from Magic Reservoir, including the Camas Prairie aquifer system. The BWRGWMA also includes the upper Silver Creek drainage in the vicinity of Picabo, Idaho. A map of the BWRGWMA is included in this Management Plan as Appendix B.

The upper Wood River Basin hydrologic system is comprised of four main arterial streams: the Big Wood River, Silver Creek, the Little Wood River, and Camas Creek. "Aquifers underlying the Wood River Basin include the Camas Prairie aquifer system, the Wood River Valley aquifer system, the ESPA [Eastern Snake Plain Aquifer], and small local aquifers in the upper Little Wood River valley."[1] Appendix C contains a bibliography of documents characterizing the Wood River Basin hydrologic system.

The following three findings of fact from the Management Area Order summarize IDWR's reasons for establishing the BWRGWMA:

> The surface and ground waters of the Big Wood River drainage are interconnected. Diversion of ground water from wells can deplete the surface water flow in streams and rivers. New ground water uses can also deplete available supplies for other users and affect basin underflow which presently accumulates in the Magic Reservoir.
>
> There are a number of Applications for Permit to Appropriate Water pending before the department which propose additional consumptive uses of ground water within the Big Wood River drainage.

[1] August 28, 2015, memorandum from Jennifer Sukow to Gary Spackman about "Hydrology, hydrogeology, and hydrologic data, Big Wood & Little Wood Water Users Association delivery calls, CM-DC-2015-001 and CM-DC-2015-002".

Injury could occur to prior surface and ground water rights including the storage right in Magic Reservoir if the flows of streams, rivers and ground water underflow in the Big Wood River Basin are intercepted by junior priority ground water diversions.

Early water management practices in the Big Wood River basin focused on surface water. By 1915, watermasters were administering Big Wood River water rights and Little Wood River water rights by priority. By 1980, IDWR recognized that surface water was fully appropriated upstream of Magic Reservoir in the Big Wood River drainage during the irrigation season and stopped issuing water right permits for new irrigation season consumptive uses there. ~~By 1991, IDWR established a ground water management area for the Big Wood River drainage with an associated management policy for the subsequent appropriation of ground water rights.~~ In the 1970s and 1980s the Idaho Water Resource Board applied for a series of minimum stream flow water rights on the Big Wood River, Little Wood River, and Silver Creek to preserve flows for wildlife, recreation, and related instream values. The reasons for appropriating minimum stream flow water rights are discussed in Idaho Code and the Idaho State Water Plan.[2] The minimum stream flow water rights, now ~~partially~~ decreed by the Snake River Basin Adjudication ("SRBA") district court, are listed in Table 1, and their locations are depicted in Appendix G. Consistent with the prior appropriation doctrine, the minimum stream flow water rights, with their relatively junior priority dates, do not limit diversion and use of water pursuant to prior water rights. Furthermore, because conjunctive administration of surface and ground water rights was not yet implemented, the minimum stream flow water rights did not affect the administration or development of ground water rights.

*Table 1: Minimum stream flow water rights*

| Water Right No. | Basis | Source | PriorityDate | ~~Permit Date~~ | Max Flow Rate (cfs) | Water Use | Owner |
|---|---|---|---|---|---|---|---|
| 37-7919 | Decreed | BIG WOOD RIVER | 6/19/1981 | ~~1/16/1987~~ | 70.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-8258 | Decreed | BIG WOOD RIVER | 1/16/1986 | ~~12/30/1991~~ | 200.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-8307 | Decreed | BIG WOOD RIVER | 10/16/1987 | ~~12/30/1991~~ | 119.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-7739 | Decreed | LITTLE WOOD RIVER | 9/29/1978 | ~~10/24/1980~~ | 39.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-7727 | Decreed | SILVER CREEK | 9/13/1978 | ~~2/28/1979~~ | 99.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-7728 | Decreed | SILVER CREEK | 9/13/1978 | ~~2/28/1979~~ | 74.0 | MIN. STREAM FLOW | STATE OF IDAHO |
| 37-7849 | Decreed | SILVER CREEK | 8/26/1980 | ~~1/16/1987~~ | 74.0 | MIN. STREAM FLOW | STATE OF IDAHO |

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By 1991, IDWR established a ground water management area for the Big Wood River drainage with an associated management policy for the subsequent appropriation of ground water rights. The primary management strategy in the 1991 Policy was to restrict the approval of new ground water appropriations in the BWRGWMA. Under the 1991 Policy, IDWR has not approved new appropriations of ground water for non-domestic consumptive uses within the BWRGWMA, unless the applicant mitigated for depletions that would injure senior surface water and ground water rights. These restrictions minimized new depletions of water in the BWRGWMA after 1991. The 1991 management policy appears to have been effective in curbing the steady rate of ground water level declines in the Wood River Valley portion of GWMA. In a 2019 report, IDWR hydrogeologist Allan Wylie states:

[2] Idaho Water Resource Board, 2012, Idaho State Water Plan, https://idwr.idaho.gov/wp-content/uploads/sites/2/iwrb/2012/2012-State-Water-Plan.pdf.

In the Wood River Valley portion of the GWMA, the water-table has declined at rate of about 0.17 ft/yr since 1968. However, since formation of the GWMA in 1991 the water-table appears to be either reasonably stable or recovering at a rate of about 0.18 ft/yr. [Table references omitted.]

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While the 1991 Policy limited the development of new ground water appropriations in the BWRGWMA, water users remained concerned about the impacts of ground water diversions on both ground water and surface water sources in the Wood River Basin. Work to resolve the concerns largely paused while the Snake River Basin Adjudication ("SRBA") determined the elements of existing water rights, including those in the Wood River Basin. As the SRBA ended for non-de minimis water rights, the desire for conjunctive administration of surface and ground water rights by priority came into focus in much of the SRBA area. In the Wood River Basin, IDWR responded by cooperating with the water users and with other agencies to bolster its ability to manage water resources. Items accomplished include:

- 2010 – In cooperation with the U.S. Geological Survey ("USGS"), IDWR began a program to expand the existing hydrologic monitoring network in the Wood River Valley with the installation of four stream gages in the Wood River Valley.
- 2011 – IDWR issued an order creating the Upper Wood Rivers Water Measurement District and required ground water users to install measuring devices prior to the 2014 irrigation season.
- 2012 – In cooperation with the USGS, IDWR began work on development and calibration of a numerical ground water-flow model for the Wood River Valley, including Silver Creek and the Bellevue Triangle area.
- 2013 – IDWR issued an order (a) combining water districts for the Big Wood River, the Little Wood River, and Silver Creek into Water District 37 ("WD37"); (b) adding ground water rights from the Upper Big Wood River valley above Magic Reservoir and the Silver Creek drainage to WD37; and (c) abolishing the Upper Wood Rivers Water Measurement District.
- 2015 - 2016 – Ground water users within the Wood River valley formed the South Valley Ground Water District ("SVGWD") and the Galena Ground Water District ("GGWD").
- 2016 – USGS published a final report documenting version 1.0 of the Wood River Valley Groundwater-Flow Model.[3]
- 2019 – IDWR published a final report documenting recalibrated version 1.1 of the Wood River Groundwater-Flow Model.[4]

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[3] Fisher, J.C., Bartolino, J.R., Wylie, A.H., Sukow, Jennifer, and McVay, Michael, 2016, Groundwater-flow model of the Wood River Valley aquifer system, south-central Idaho: U.S. Geological Survey Scientific Investigations Report 2016–5080, 71 p., http://dx.doi.org/10.3133/sir20165080.

[4] Idaho Department of Water Resources, 2019, Groundwater-Flow Model for the Wood River Valley Aquifer System, Version 1.1, A. Wylie, J. Sukow, M. McVay, J. Bartolino, 39 p., https://idwr.idaho.gov/wp-content/uploads/sites/2/projects/wood-river-valley/20190627-Groundwater-Flow-Model-forthe-Wood-River-Valley-Aquifer-System.pdf.

- 2019 – IDWR published a summary of ground water conditions in the BWRGWMA.[5]

Meanwhile, water users within WD37 pursued options to conjunctively manage water rights from hydraulically connected surface and ground water sources in the Wood River Basin.

- 2015 – The Big Wood and Little Wood Water User's Association ("BWLWWUA") initiated two water right delivery calls pursuant to IDWR's Conjunctive Management Rules (IDAPA 37.03.11). Citing procedural issues, IDWR dismissed the delivery calls in 2016.

- 2017 – The BWLWWUA filed another water right delivery call pursuant to IDWR's Conjunctive Management Rules. IDWR dismissed the delivery call in 2017 upon determining that the BWLWWUA lacked standing to bring a delivery call.

- 2018 through 2020 – In an effort to avoid further conjunctive management water delivery calls or administrative actions, ground water, and surface water users within WD37 met informally to negotiate ground water management and mitigation strategies.

In September 2020, the GGWD and SVGWD submitted a draft BWRGWMA ground water management plan to IDWR. In October 2020, the BWLWWUA and Big Wood Canal Company ("BWCC") submitted a draft agreement proposing elements of, and a road map to, the development of a conjunctive management plan for ground water and surface water rights in the BWRGWMA. In response to the two proposals, IDWR Director Gary Spackman ("Director") formed an advisory committee to draft a new management plan for the BWRGWMA. From the fall of 2020 through the spring of 2021 the advisory committee met approximately biweekly to learn from experts about the hydrology and hydrogeology of the Wood River Basin and to evaluate management plan options for the BWRGWMA.

On May 4, 2021, in response to severe drought conditions causing water supply shortages in the Wood River Basin, the Director initiated administrative proceedings for the Wood River Basin. On June 28, 2021, the Director issued an order curtailing junior ground water rights in the Bellevue Triangle area of the BWRGWMA to increase the supply of water to senior water right holders in the Silver Creek and Little Wood River drainages.[6] On July 8, 2021, the Director approved the ground water users' mitigation plan and stayed the curtailment order. Prior to submitting the mitigation plan, the parties to the administrative proceedings -- including GGWD, SVGWD, and BWLWWUA -- signed a settlement document that included, among other things, a commitment to collaborate with the advisory committee to submit a proposed ground water management plan for the BWRGWMA to the Director by December 1, 2021. The advisory committee resumed meeting on August 9, 2021.

By January 2022 the advisory committee negotiated the elements of the *Big Wood River Ground Water Management Area Advisory Committee Groundwater Management Plan Term Sheet* ("Term Sheet") describing various management actions intended to "inform the development of a ground water

[5] Idaho Department of Water Resources, 2019, Summary of Ground Water Conditions in the Big Wood River Ground Water Management Area, 2019 Update, Allan Wylie, 79 p., https://idwr.idaho.gov/wp-content/uploads/sites/2/publications/20190920-Summary-Groundwater-Conditions-Big-Wood-River-GWMA-2019-Update.pdf.

[6] SVGWD and GGWD sought judicial review of the Director's decision. See South Valley Ground Water District v IDWR, Case No. CV07-21-00243. On February 10, 2022, the district court issued a Memorandum Decision and Judgement which affirmed in part, and set aside and remanded in part, the Director's decision. IDWR filed a Notice of Appeal of the district court's decision with the Idaho Supreme Court on March 24, 2022. The appeal is currently pending.

management plan pursuant to Idaho Code § 42-233b, support the delivery of water to senior surface water rights, support stream health, and improve and maintain aquifer health." A copy of the Term Sheet is attached herein as Appendix D.

Representatives of the following entities signed the Term Sheet: BWLWWUA, BWCC, SVGWD, GGWD, Sun Valley Company ("SVC"), City of Hailey, Water District 37B Ground Water Association ("WD37B GWA"), City of Bellevue, City of Ketchum, and Sun Valley Water and Sewer District ("SVWSD"). All of these entities are collectively referred to in this Management Plan as the "Term Sheet Parties" or "Parties." The Cities of Bellevue, Ketchum, and Hailey are collectively referred to in this Management Plan as the "Cities." SVGWD and GGWD are collectively referred to in this document as the "GWDs." The Cities, SVWSD, and SVC also prepared the *Cities/SVWSD/SVC Term Sheet RE: Big Wood River GWMA Management Plan* ("Cities-SVSWD-SVC Term Sheet") to further address their contributions to the Management Plan. The Cities-SVSWD-SVC Term Sheet is included as Appendix A to the Term Sheet found in Appendix D of this Management Plan.

## III. RELEVANT LEGAL PROVISIONS

Idaho Code § 42-226 declares all ground water within the state to be the property of the state and confirms the state's power to supervise the appropriation and allocation of ground water within its boundaries.

Idaho Code § 42-231 states:

> [I]t shall be the duty of the [Director] to conduct investigations, surveys, and studies relative to the extent, nature and location of the ground water resources of this state . . . . It shall likewise be the duty of the [Director] to control the appropriation and use of the ground water of this state . . . and to do all things reasonably necessary or appropriate to protect the people of the state from depletion of ground water resources contrary to the public policy expressed in this act.

Idaho Code § 42-233b states:

> When a ground water management area is designated by the director of the department of water resources, or at any time thereafter during the existence of the designation, the director may approve a ground water management plan for the area. The ground water management plan shall provide for managing the effects of ground water withdrawals on the aquifer from which withdrawals are made and on any other hydraulically connected sources of water.

Idaho Code § 42-233b further states:

> The director, upon determination that the ground water supply is insufficient to meet the demands of water rights within all or portions of a water management area, shall order those water right holders on a time priority basis, within the area determined by the director, to cease or reduce withdrawal of water until such time as the director determines there is sufficient ground water. Water right holders participating in an approved ground water management plan shall not be subject to administration on a time priority basis so long as they are in compliance with the ground water management plan.

Idaho Code § 42-223(4) states that a water right shall not be lost or forfeited if the reason for nonuse of the water is to comply with the provisions of a ground water management plan.

Idaho Code § 42-1805(7) authorizes the Director to suspend the issuance or further action on applications to appropriate water as necessary to protect existing water rights. Further, Rule 55 of the Department's Water Appropriation Rules (IDAPA 37.03.08) states that the Director may establish moratoriums, as necessary, to protect existing water rights.

## IV. MANAGEMENT PLAN GOALS

The main goal of this Management Plan is "to manage the effects of ground water withdrawals on the aquifers from which the withdrawals are made and any other hydraulically connected sources of water." *Idaho Code § 42-233b*. In doing so, the parties have agreed upon management actions that include, among other elements described herein, maintaining a 32 cfs four-day moving average streamflow target from May 1 through September 30 at Station 10, Little Wood River near Richfield (see figure 1). The benefits of managing the effects of ground water withdrawals and maintaining 32 cfs at Station 10 include supporting the supply of water for senior surface water rights, supporting stream health, and improving and maintaining aquifer health. For BWRGWMA ground water users who participate in and abide by the terms of this Management Plan, adoption of the Management Plan establishes safe harbor from curtailment. *Idaho Code § 42-233b*.

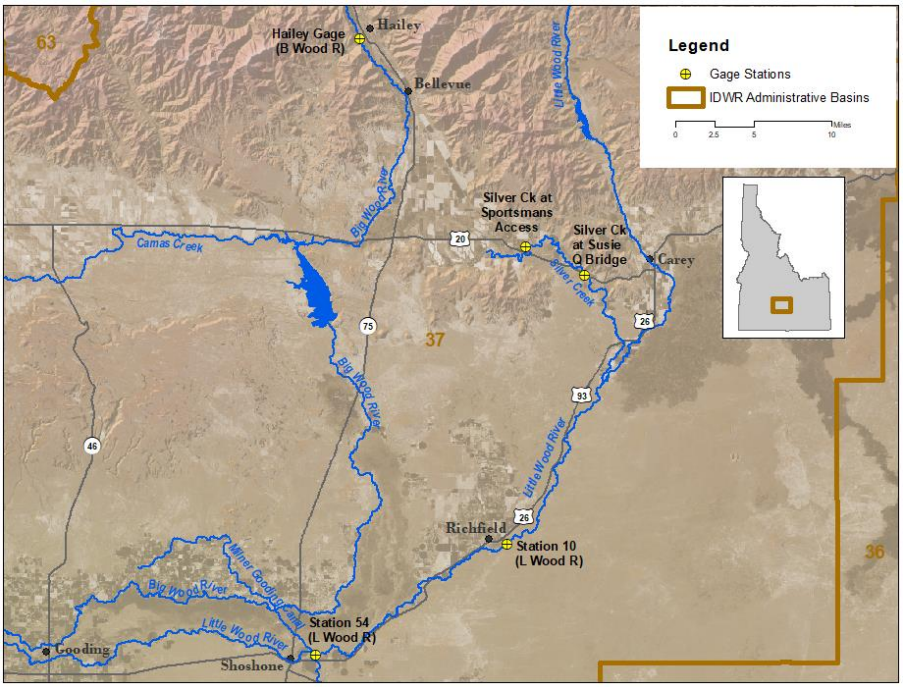


*Figure 1. Gage Station Locations*

## V. WATER USE MANAGEMENT AND IMPLEMENTATION STRATEGIES

To achieve the goals of this Management Plan, the following agreed-upon three-year water use management strategies or practices shall commence in 2022. Some practices are baseline actions implemented annually. Additional practices are implemented in response to water supply conditions. Some strategies shall be phased in over the three-year period to achieve Management Plan goals.

**1. Baseline Management Actions**

Within the BWRGWMA, most ground water users, other than *de minimis* domestic and stockwater right holders, are represented by one or more of the following entities: the GWDs, the Cities, and WD37B GWA. Some non-irrigation ground water right holders are not represented by any of the listed entities. Unless a particular group of ground water users is identified, the term "ground water users" refers to all ground water users in the BWRGWMA, except for *de minimis* domestic and stockwater right holders whose diversions are not administered by WD37 or WD37B.

Ground water users will accomplish the following actions every year regardless of the water supply conditions in the BWRGWMA.

**A. Fallowed Acres within Ground Water Districts**

A fallowed acre means an acre of land that has been irrigated using valid ground water rights that will no longer be irrigated from either a ground water or surface water source. The GWDs will fallow irrigated acres each year to achieve an annual or baseline level of reduction in ground water consumptive use. Baseline fallowed acres may have water rights from a ground water source only, or from both ground water and surface water sources (mixed sources). Surface water sources may include the Big Wood River and tributaries, Silver Creek and tributaries, or springs tributary to those sources. The GWDs will fallow acres as follows:

1. Within SVGWD, at least 1,500 acres/yr.

2. Within GGWD, at least 200 acres in 2022 and 2023, and 500 acres in 2024.

3. Conditions for Fallowed Acres:

    a. Surface water rights from the Big Wood River and tributaries appurtenant to fallowed acres may be changed from irrigation use to managed aquifer recharge, subject to review and approval by IDWR. Surface water irrigation rights changed to ground water recharge may continue to be diverted to canals or ditches and re-diverted to recharge pits to maintain incidental recharge under the same water rights. Surface water rights must be in priority when used for recharge.

    b. Surface water rights from Silver Creek and tributaries appurtenant to fallowed acres may be left in the natural stream channel and changed from irrigation use to mitigation by non-use, subject to review and approval by IDWR.

    c. Location of fallowed acres may change from year to year during the first one to three years. Fallowed acres shall be identified by the end of year three (2024) and stabilized long-term, depending on renewal of this Management Plan, through the Conservation Reserve Enhancement Program ("CREP") or other long-term arrangements.

d. The GWDs shall identify the number and location of acres to be fallowed during each of the first three years, along with identification of appurtenant ground water and surface water rights, to IDWR by May 6, 2022.

**B. Ground water Irrigation Season of Use Limits**

1. Ground water users will not irrigate before May 1 or after September 15.

2. A September 30 turn-off is authorized for specific circumstances, contingent on the water use being within individual ground water user's reduction targets.[7] Examples of specific circumstances may include potato crops, pasture, or landscape nurseries.

**C. Conservation, Infrastructure and Efficiency Fund ("CIEF")**

1. Contributions to the CIEF by the Cities, SVWSD, and SVC are expressed in the Cities-SVSWD-SVC Term Sheet. Condition no. 1 of the Cities-SVWSD-SVC Term Sheet states, in part:

> Starting in 2022, and every year thereafter, by January 31 for the three-year term of the GWMA Plan approved by the Director of IDWR, the Cities, SVWSD, and SVC each will contribute $10 per acre-foot of their average annual non-irrigation ground water diversions (based on a 5-year rolling average of prior diversions) to an account known as the Conservation and Infrastructure, Efficiency Fund, as more broadly described in the GWMA Plan.

In all, the Cities-SVSWD-SVC Term Sheet lists eleven conditions for their participation in the Management Plan. The rest of condition no. 1 and conditions 2-11 are incorporated herein by reference. See Appendix D.[8]

Due to timing of approval of the Term Sheet, the Cities-SVWSD-SVC Term Sheet, and this Management Plan, contributions to CIEF in 2022 by the Cities, SVWSD and SVC shall be made by May 10, 2022, and by January 31 each year thereafter.

2. Each year WD37B GWA shall contribute $10,000 to the CIEF. In 2022, the contribution shall be made by May 10, 2022, and by January 31 each year thereafter.

3. Each year other non-irrigation ground water users who seek to participate in the Management Plan shall contribute $10/AF of their withdrawals (using a five-year rolling average of prior annual non-irrigation ground water diversions) to the CIEF.

[7] Individual GWD water users will have assigned irrigation season pumping targets depending on forecasted water supply and recommended consumptive use reductions. For example, a user assigned a reduced seasonal pumping target of 200 AF who pumped only 175 AF by September 15, may pump up to 25 AF by September 30.

[8] The Cities-SVWSD-SVC Term Sheet states on page 4: "The Cities, SVWSD, and SVC shall be subject to the terms set forth above [in the Cities-SVSWD-SVC Term Sheet] only upon their incorporation into a GWMA Plan approved by the Director of IDWR."

4. CIEF funds will be used primarily for infrastructure improvements and other permanent measures that improve the efficiency of delivering senior water rights, protect ground water levels, or increase surface water flows, and for purchasing storage water.

5. CIEF funding decisions shall be approved by the CIEF Committee, which shall be comprised of an equal number of surface water right holders and ground water right holders in Water Districts 37 and 37B who are elected/appointed in accordance with CIEF Committee bylaws, plus one representative of the Idaho Water Resource Board ("IWRB"), and one representative from a Non-Government Organization ("NGO") within the Wood River basin.[9]

6. CIEF Funds will be collected, held, and administered by the Wood River Resource Conservation and Development Council ("WRRCDC"). The WRRCDC resolution accepting this responsibility is attached as Appendix E.

7. The CIEF Committee shall report on the following items to the BWRGWMA Advisory Committee, IDWR, and the IWRB by December 1 of each year: CIEF contributions and expenditures, CIEF Committee decisions, and the results of any actions taken by the CIEF Committee.

8. The CIEF Committee will investigate and engage in potential cost share opportunities as appropriate, including without limitation:

    a. Potential State and Federal cost share.

    b. Potential cost share through grants with assistance from NGOs.

    c. Other cost share partners including water delivery entities, NGOs, etc.

**D. Snake River Storage Delivery**

Ground water users will annually acquire and deliver storage water from the Snake River to the BWLWWUA. Storage water from the Snake River will be delivered via the Milner-Gooding Canal and injected into 1) the Little Wood River for re-diversion from the Little Wood River by BWLWWUA members holding senior priority water rights from the Little Wood River, and 2) laterals within American Falls Reservoir District No. 2 for re-diversion by BWLWWUA members holding senior priority water rights from the Big Wood River. Delivery of this storage water will directly benefit holders of downstream senior surface water rights, thereby reducing some demand for delivery of available natural flow to fill downstream senior water rights. Any reduced demand for available natural flow downstream is intended to benefit holders of upstream senior surface water rights.

Storage water may be delivered during the irrigation season between May 1 and September 30, subject to Water District 01 (Snake River) storage water allocation procedures and available delivery capacity in the Milner-Gooding Canal. The amount of storage water delivery shall be as follows:

[9] NGOs include the Wood River Land Trust, The Nature Conservancy, Trout Unlimited and Silver Creek Alliance.

1. The amount of storage water delivery to the Little Wood River shall be 1,500 AF/yr. (1,755 AF/yr. total with 17% conveyance loss).

    a. GGWD shall acquire the storage water and pay for it.

    b. GGWD can market unused storage water after September 30.

2. The amount of storage water delivery to the Big Wood River shall be 913 AF/yr. (1,100 AF/yr. total with 17% conveyance loss).

    a. GGWD shall acquire the storage water, which will be bought with CIEF funds (see section V.1.C.).

    b. Unused storage water can be marketed after September 30. Proceeds of any unused storage water purchased through the CIEF that is marketed at the end of the irrigation season shall return to the CIEF.

3. Water District 37 shall report annual storage water deliveries to the BWRGWMA Advisory Committee, IDWR, and IWRB each year by December 1. The report shall show the amount of water delivered to each user and the locations of delivery.

**E. Stream Flow Target**

A goal of the Management Plan is to maintain a 32 cfs four-day moving average streamflow target from May 1 through September 30 at Station 10 on the Little Wood River near Richfield. This flow target is intended to support delivery of senior surface water rights and both stream and aquifer health. The target allows for consumptive use of ground water within the forecasted water supply tiers shown in Table 1, provided that the 32 cfs four-day moving average streamflow target is met. The target may be achieved by implementing the actions described in sections V.1.A and V.1.B above and section V.2 below. If the stream flow target is not met, additional consumptive use reductions beyond those identified in section V.2 or other management actions will be required. Management actions to support the stream flow target may include:

- Fallowing to reduce ground water consumptive use based on the April 1 flow volume forecast at the Big Wood River gage station near Hailey ("Hailey") from April through September.
- Partial season self-curtailment of ground water consumptive use based on the April 1 and/or June 1 Hailey flow volume forecast.
- Partial season self-curtailment based on inadequate stream flows.
- Partial or full-season water right transfers to supplement inadequate stream flows.
- Partial or full-season non-diversion of in-priority surface water rights to supplement inadequate stream flows.

The four-day moving average flow at Station 10 may drop below the 32 cfs target in extremely dry years due to lack of natural water supply and other compounding factors outside the control of the ground water users. During these dry conditions, maintaining adequate stream flows are

critical to prevent damage to the stream and injury to senior water rights. In such years, the management actions described in this Management Plan can be applied to achieve the 32 cfs target flow at Station 10. If application of the management actions does not sustain the target flow, all users agree to cooperate to minimize lasting environmental damage by keeping as much water in the stream as possible.

Occurrences of flows less than 32 cfs at Station 10 after applying the management actions described in this Management Plan will trigger review of the analytic tools that predict allowable consumptive use of ground water, with potential for modification of the tools and decision thresholds within the Management Plan to ensure more reliable flows in following years.

Actions to consider after each year during the first three-year period to maintain the stream flow target may include:

- Additional early season consumptive use reductions.
- Changes in location or timing of partial season consumptive use reductions.
- Management changes in use of upstream senior rights for short-term augmentation of flows at Station 10.

The GWDs will submit a year-end report to IDWR by December 1 summarizing actions taken to maintain the stream flow target. Water District 37 will annually report surface water and ground water deliveries as required by law.

**F. Cloud Seeding**

The Cities, SVWSD, and SVC will annually contribute $3.60/AF of their respective five-year rolling average of prior annual non-irrigation ground water diversions to cloud seeding projects undertaken by Idaho Power that directly benefit the Big Wood River Basin. These funds, payable to the WRRCDC, will be used only for specific cloud seeding projects approved by the CIEF Committee as discussed in item 3 of the Cities-SVWSD-SVC Term Sheet, and in consultation with Idaho Power and IDWR.

**2. Additional Management Actions in Dry Years**

The BWRGWMA Advisory Committee, with support from IDWR, will review the predicted or forecasted flow volume (April-September) at Hailey as published by the Natural Resources Conservation Service (NRCS) and the Northwest River Forecast Center (NWRFC).[10] If the average of the NRCS and NWRFC forecasted flow volume at Hailey is above 210 KAF, the water supply is deemed adequate, and no additional management actions are necessary. In years where the forecasted flow volume is at or below 210 KAF, the GWDs will take additional management actions in accordance with the recommended forecasted water supply tiers shown in Table 1.

[10] The BWRGWMA Technical Working Group ("TWG") recommends using the mean of the NRCS SWSI and NWRFC published forecasts for decision making in year 1 and until the WRWC model has been finalized. See "*Response to Request for Information from the BWRGWMA Advisory Committee – Prepared by the TWG, November 24, 2021*."

*Table 21: Recommended forecast water supply tiers and additional management actions*

| Irrigation Season Water Supply | Avg. of Apr-Sep Volume Forecasts (KAF) | Recommended Additional GWCU Reduction (AF) Based on April 1 Forecast | Mandatory Additional Storage Water Delivery[1] (AF) Based on June 1 Forecast |
|---|---|---|---|
| Adequate | > 210 | - | - |
| Dry | 155 – 210 | 1,275 | 650 |
| Very Dry | 100 – < 155 | 11,260 | 1,300 |
| Extremely Dry | < 100 | 17,016 | 1,300 |

[1] Volume shown is limited to amount of delivery. Volume purchased must include additional 17% for conveyance loss (761 AF or 1,521 AF).

Actions taken when the forecast is less than or equal to 210 KAF at Hailey include:

**A. Ground water Consumptive Use Reductions within GWDs**

1. Using the Table 1 forecasted water supply tiers as a guide, the GWDs will implement additional, incremental ground water consumptive use reductions through voluntary cuts in ground water pumping. The GWCU reductions should be based on the average of NRCS and NWRFC April 1 forecasts at Hailey.

2. The GWDs shall annually report ground water-use reductions, when required, to IDWR by December 1. Reporting should be coordinated with and verified by the Water District 37 watermaster.

**B. Additional Snake River Storage Delivery**

1. Additional Snake River storage water, up to 1,300 AF/yr. maximum (1,521 AF/yr. with 17% conveyance loss), shall be delivered to BWLWWUA members holding senior priority water rights from the Little Wood River (water injected to Little Wood River via Milner Gooding Canal and re-diverted from the Little Wood River by individual BWLWWUA members). The additional storage water delivery shall be based on the average of NRCS and NWRFC June 1 forecasts at Hailey.[11]

2. The additional Snake River storage water may be paid through the CIEF.

3. The additional Snake River storage water delivery may occur during the irrigation season between June 1 and September 30 subject to Water District 01 Snake River storage water allocation procedures and available delivery capacity in the Milner Gooding Canal.

4. Additional storage water delivery shall be reported to the BWRGWMA Advisory Committee, IDWR and IWRB each year by December 1, consistent with the requirements stated in section V.1.D.3. of this Management Plan.

[11] On or after June 1, the volume forecast shall be the sum of the mean of the June-September 50% exceedance forecasts and the measured April-May discharge at the Hailey gage. If the sum, for example, is between 155 and 210 KAF, an additional 650 AF of storage water shall be delivered. If the sum is 155 KAF or less, an additional 1,300 AF of storage shall be delivered.

## VI. TERM

The term of this Management Plan is three (3) years and automatically expires on December 31, 2024.

## VII. ADAPTIVE MANAGEMENT POLICIES

IDWR and the Parties agree to the following adaptive management policies:

- Additional management actions or measures, as determined by the Parties, may be implemented to augment the ability of the water users to meet the goals of the Management Plan. Such additional actions or measures shall not supplant the requirements of this Management Plan without the approval of IDWR.

- The Parties can discuss and mutually agree upon amendments to the Management Plan, subject to approval by IDWR. Approved amendments may be implemented from year to year during the three-year term of the Management Plan. For example, adjustments to the projected tiered ground water consumptive use reductions may be possible following the first season of additional data.

- The Management Plan may be extended beyond December 31, 2024, by written consent of all the Parties and with approval by IDWR.

## VIII. OTHER ACTIONS

The Parties agree to the following actions and policies:

- The Parties agree to petition IDWR to issue a moratorium order specific to the BWRGWMA.

- The Parties agree to support IDWR in initiating a computerized water right accounting program for the Big Wood River and the Little Wood River/Silver Creek systems to quickly compute natural flow and storage water available for delivery during the irrigation season, similar to accounting programs used in other river basins of the state, including for example the Upper Snake River and Boise River Basins.

- The Parties agree to petition IDWR and the Idaho Water Resources Board (IWRB) to conduct a Camas Prairie aquifer study and to establish a Technical Advisory Committee to advise the development and completion of the study.

- The Parties support IDWR's plans to recalibrate the Wood River Valley Groundwater Flow Model by the end of the three-year management period. IDWR initiated the model recalibration effort with a modeling technical advisory committee meeting on March 3, 2022.

- The Parties agree to evaluate a new flow gage at Susie Q Bridge and make recommendations to IDWR based on the evaluation.

- The Parties agree to petition IDWR and the Idaho Department of Fish and Game to remove beaver dams and relocate beavers on Silver Creek and Little Wood River below Sportsman's Access gage on Silver Creek, and down to Station 10 and Station 54 gages on the Little Wood River.

- The Parties agree to petition the IWRB for funding contributions to the CIEF.[12]

- The Parties agree to collaborate with IDWR, the United States Geological Survey, Water Districts 37 and 37B, the Wood River Collaborative, or other entities to share, maintain and improve ground water and surface water monitoring networks to supply accurate, representative data in support of existing or new hydrologic models or studies, and management of water resources within IDWR Administrative Basin 37.

## IX. SAFE HARBOR

The Management Plan establishes "safe harbor" from curtailment to participating ground water users who, either individually or through a GWD or Association, implement their respective obligations as described in the Management Plan. See Idaho Code § 42-233b.

## X. NON-PARTICIPANTS

Implementation of the Management Plan does not address the ground water pumping impacts of any ground water users not participating in the Management Plan individually or through a GWD or Association, nor does it protect non-participant ground water users from curtailment under any IDWR administrative process, except that IDWR does not generally curtail:

1. holders of ground water rights used for de minimis domestic purposes where such domestic use is within the limits of the definition set forth in Idaho Code § 42-111 and groundwater rights used for de minimis stock watering where such stock watering use is within the limits of the definitions set forth in Idaho Code § 42-1401A(1);

2. holders of non-consumptive groundwater rights, including those rendered non-consumptive through mitigation approved by the IDWR and implemented by the water right holder; or

3. holders of water rights that authorize diversion of ground water when water is available for diversion under the original surface water source and priority date of the water right, including those rights mitigated by the non-use of a surface water right.

Because these types of ground water rights are not typically curtailed in any IDWR administrative process, the holders of such rights are not expected to participate in the Management Plan during the three-year term of the Management Plan.

## XI. ADVISORY COMMITTEE AND TECHNICAL WORK GROUP

The BWRGWMA Advisory Committee shall continue to assist IDWR with implementation of the Management Plan. The Advisory Committee should meet periodically to review the Management Plan goals and strategies and to ensure that the provisions of the plan are properly implemented. The Advisory Committee should frequently review the Management Plan and work with IDWR to update the plan as needed. Advisory Committee meetings shall be adequately noticed, including on IDWR's website. Advisory Committee meetings will be open to the public and accommodate public comments.

[12] On April 1, 2022, the IWRB adopted *Resolution to Make a Funding Commitment in the Matter of the BWRGWMA Management Plan – Conservation, Infrastructure and Efficiency Fund*. Resolution No. 14-2022. See Appendix F.

The Advisory Committee and IDWR have relied on a technical work group to review and analyze information and to recommend solutions to technical issues. The Advisory Committee and IDWR may continue to rely on the existing technical work group or form ad hoc technical work groups as needed.

Minutes of any meeting of the Advisory Committee shall be provided to IDWR and posted to IDWR's website.

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX A

**Order Designating the Big Wood River Ground Water Management Area**
**June 28, 1991**

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX B

**Map of the Big Wood River Ground Water Management Area**

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX C

**Bibliography of Reference Material Characterizing the Wood River Basin Hydrology and Hydrogeology**

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# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX D

**Big Wood River Ground Water Management Area Advisory Committee Ground Water Management Plan Term Sheet**

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX E

**Wood River Resource Conservation and Development Council Resolution**

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX F

**IDAHO WATER RESOURCE BOARD RESOLUTION NO. 14-2022**
**RESOLUTION TO MAKE A FUNDING COMMITMENT IN THE MATEER OF THE BWRGWMA MANAGEMENT PLAN – CONSERVATION, INFRASTRUCTURE, AND EFFICIENCY FUND**

# FINAL BIG WOOD RIVER GROUND WATER MANAGEMENT AREA MANAGEMENT PLAN

# APPENDIX G

**Map of Minimum Stream Flow Water Rights**