ESPA Groundwater Management Plan

[working draft]

Index

1. Plan Overview

This Plan is designed to stabilize the Eastern Snake Plain Aquifer (ESPA) and manage the effects of groundwater withdrawals on the Snake River in a manner that keeps as many acres of farmland in production, and as many businesses in operation, as possible.

Aquifer stabilization will be achieved by limiting groundwater use and increasing managed aquifer recharge. Each groundwater user will be allocated a volume of water once every four years that may be diverted within a designated four-year period. Groundwater level trends will be evaluated every eight years. At each eight-year interval, groundwater allocations may be adjusted to achieve and maintain stable groundwater levels.

In keeping with the Two Rivers Doctrine, the Plan prescribes separate frameworks for managing the effects of groundwater withdrawals on the Snake River upstream of Milner Dam versus downstream of Milner Dam. Upstream of Milner Dam, the effects will be managed by stabilizing the aquifer and implementing capital improvement projects to enhance drought resilience and provide a safe supply of water to the Surface Water Coalition. Downstream of Milner Dam, trust water rights will be regulated to satisfy the minimum Snake River flows at the Murphy Gage in accordance with the Swan Falls Agreement.

2. Contents

Section 10. Objectives & Goals
The objectives of the Plan are to (1) stabilize the ESPA at a level that supports full economic development of the resource, and (2) manage the effects of groundwater use on springs that discharge from the ESPA into the Snake River to provide a reasonably safe supply of surface water for irrigation and other uses. To achieve these objectives, the Plan includes goals to conserve groundwater, increase managed aquifer recharge by the Idaho Water Resource Board, expand the Management Area to include tributary basins, develop an effective accounting program, incentivize groundwater conservation, and preserve incidental recharge.

Section 11. Water Rights Included in the Plan
The Plan governs all groundwater rights within the Management Area. The Plan describes a process for expanding the Management Area to include tributary basins that contribute inflows to the ESPA. The Plan does not regulate exempt domestic wells or uses of water that do not deplete the ESPA.

Section 12. Aquifer Stabilization
The Plan will stabilize the ESPA by limiting the amount of groundwater withdrawn from the ESPA, increasing managed aquifer recharge, and incentivizing incidental recharge. All groundwater rights subject to the Plan are allocated a volume of water in acre-feet that may be diverted within a four-year period called a Compliance Period. In addition, the Plan seeks to increase the Idaho Water Resource Board's managed aquifer recharge target from 250,000 to 350,000 acre-feet by January 1, 2026.

Section 13. Management of Effects on Hydraulically Connected Sources
The effects of ESPA groundwater withdrawals on spring discharges upstream from Milner Dam are managed separately from the effects downstream from Milner Dam. Upstream of Milner Dam, the effects will be managed by taking actions to secure a reasonably safe supply of water for the Surface Water Coalition and enhance drought resilience. Groundwater users will make annual contributions to a Drought Resilience Fund to finance these actions. Downstream of Milner Dam, the effects of groundwater diversions will be managed in accordance with the Swan Falls Agreement. Actions taken to manage the effects of groundwater withdrawals may be adjusted at each Adjustment Interval.

Section 14. Plan Adjustments
The Plan is designed to adapt to observed water conditions and make periodic adjustments as needed to achieve and sustain the objectives of the Plan.

Section 15. Safe Harbor
Water users who comply with the Plan are not subject to curtailment under Idaho Code 42-233b.

3. Appendices

Appendix 1 – Map of ESPA Watershed identifying ESPA Regions and Tributary Regions

Appendix 2 – Near Blackfoot to Milner reach gains 1928 to 2023

Appendix 3 – Milner to King Hill reach gains 1902 to 2023

4. Defined Terms

Adjustment Interval: The Plan may be adjusted every eight years (after two Compliance Periods) based on the observed effects of actions taken under the Plan. The first Adjustment Interval takes effect on January 1, 2033, the second Adjustment Interval takes effect on January 1, 2041, and so forth.

Baseline ESPA Groundwater Level: The average groundwater level of the representative wells in the ESPA in the Spring of 2023, calculated using a weighted area average based on the volume of groundwater use represented by each well.

Baseline Regional Groundwater Level: The average groundwater level of the representative wells in each ESPA Region in the Spring of 2023, calculated using a weighted area average based on the volume of groundwater use represented by each well.

Commencement Date: January 1, 2025. The date Plan obligations take effect.

Compliance Period: A four-year period during which water users must limit their pumping to no more than their Compliance Period Allocation. The first Compliance Period begins January 1 of Year 1 and ends December 31 of Year 4.

Compliance Period Allocation: The total amount of water allocated to a water user for use during a Compliance Period. For each water user, the Compliance Period Allocation is equal to their Water User Allocation multiplied by four.

Department: The Idaho Department of Water Resources.

Director: The Director of the Department.

Drought Resilience Fund: The fund developed in accordance with section 13.2 to finance projects to secure a reasonably safe supply of water to the Surface Water Coalition and enhance drought resilience.

ESPA: The Eastern Snake River Plain Aquifer.

ESPA Region: A geographic area within which groundwater is diverted from the ESPA. There are three ESPA Regions as depicted on the map in Appendix 1: Magic Valley Region, Mid-Snake Region, and Upper Valley Region.

ESPA Groundwater Level. The average groundwater level in the representative wells for the ESPA at a given point in time, using a weighted area average based on the volume of groundwater use represented by each well.

ESPA Groundwater Level Change. The change in the ESPA Groundwater Level, measured by comparing the average ESPA Groundwater Level over the most recent 12-year period against the Baseline ESPA Groundwater Level.

ESPA Watershed: The ESPA and tributaries to the ESPA. Appendix 1 is a map of the ESPA Watershed.

Plan: This groundwater management plan.

Global Allocation: The total volume of groundwater (acre-feet) allocated for diversion from the ESPA Watershed annually during a Compliance Period.

Ground Water District: A district established pursuant to Chapter 52, Title 42, Idaho Code.

Irrigation District: A district established pursuant to Title 43, Idaho Code.

IWRB: The Idaho Water Resource Board.

Management Area: The ESPA Groundwater Management Area as defined by Department orders governing the Management Area.

Measuring Device: A Department-approved measuring device. A list of the open channel and closed conduit measuring devices approved by the Department can be found on the Department's website: idwr.idaho.gov.

Region: Collectively, ESPA Regions and Tributary Regions.

Regional Groundwater Level: The average groundwater level in the representative wells for an ESPA Region at a given point in time, using a weighted area average based on the volume of groundwater use represented by each well.

Regional Groundwater Level Change: The change in the Regional Groundwater Level, measured by comparing the average Regional Groundwater Level over the most recent 12-year period against the Baseline Regional Groundwater Level.

Representative Wells: A group of wells that reasonably represents current groundwater levels within a designated area such as the ESPA or an ESPA Region.

Stabilize or Stabilization: To create and maintain a neutral trend in groundwater levels, measured over a 12-year average.

Tributary Region: A geographic area within which groundwater is diverted from a tributary to the ESPA. Each Tributary Region is linked to an ESPA Region for purposes of determining Water User Allocations (*i.e.* the Water User Allocation in a Tributary Region is the same as the ESPA Region to which it is linked).

Water User Allocation: The amount of water allocated to an individual water user for annual use.

Water System: A single, interconnected system used to divert and deliver groundwater for uses authorized by valid water rights. A system may be made up of multiple points of diversion (groundwater wells) and/or multiple places of use (such as multiple pivots).

Year X: The word "Year" followed by a number refers to the year following Plan approval, starting on January 1. For example, Year 1 runs from January 1-December 31, 2025.

5. ESPA Watershed

The ESPA is a large and highly productive aquifer composed predominantly of fractured Quaternary basalt having an aggregate thickness that in some locations may exceed several thousand feet. It covers an area spanning over 10,800 square miles of southcentral and southeastern Idaho, stretching from Ashton on the east to King Hill on the west. It is one of the largest and most productive aquifers in the world, estimated to hold a billion acre-feet of water. A map of the ESPA watershed, including tributary basins, is attached as Appendix 1.

Water enters the ESPA primarily from irrigation canal infiltration (~2.6 million acre-feet per year), surface water irrigation infiltration (~2.3 million acre-feet per year), tributary aquifers (~1.2 million acre-feet per year), precipitation (~1.0 million acre-feet per year), and infiltration from tributary rivers and streams (~700,000 acre-feet per year). Water exits the ESPA primarily via springs in the Thousand

Springs area (~4.2 million acre-feet per year), groundwater irrigation (~2.6 million acre-feet per year)[1], springs in the American Falls area (~1.1 million acre-feet per year), wetlands (~100,000 acre-feet per year), and urban pumping (~100,000 acre-feet per year).[2]

The ESPA is a vital source of water for the State of Idaho. Approximately one million acres of farmland on the Eastern Snake River Plain are irrigated by groundwater pumped directly from the ESPA. An additional approximately 250,000 acres are irrigated by groundwater pumped from tributary aquifers, and approximately 560,000 acres are irrigated in the Magic Valley with surface water from the Snake River which is supplemented by spring flows from the ESPA in the American Falls area. In addition to irrigation, the ESPA supplies water to every municipality on the Eastern Snake River Plain and is the primary source of water for Idaho's robust dairy, cattle, and aquaculture industries. The ESPA is crucial to Idaho's food supply and the economy of communities of Idaho.

6. Background Information

From the late 1800s to the mid-1950s, the amount of groundwater stored in the ESPA increased dramatically due to flood irrigation which transported large amounts of water from the Snake River onto the Eastern Snake River Plain, much of which seeped into the ESPA. Groundwater levels increased significantly, which in turn increased spring discharges from the ESPA, as shown in Appendix 2 and Appendix 3. The trend reversed beginning in the mid-1950s due to the widespread conversion of farmland from flood to sprinkler irrigation, the Winter Water Savings Program, and the advent of groundwater irrigation.

Snake River reach gains in the American Falls area declined from a peak of approximately 2 million acre-feet in the early 1980s to approximately 1.5 million acre-feet, as shown on Appendix 3. Cumulative spring flows in the Thousand Springs area declined from a peak of nearly 5 million acre-feet in the early 1950s to approximately 3.4 million acre-feet as shown in Appendix 3. A comparison of Appendix 2 and Appendix 3 demonstrates that the increase in ESPA spring discharges during the first half of the twentieth century and the decrease during the second half has been more pronounced in the Thousand Springs area than the American Falls area.

As a result of the declines in ESPA spring discharges, several holders of surface water rights from the Snake River and from springs in the Thousand Springs area initiated actions to curtail groundwater diversions from the ESPA. The first action, filed by Idaho Power, produced the Swan Falls Agreement which provides for management of the Snake River downstream of Milner Dam based on certain minimum flows at the Murphy Gage, and allows for the curtailment of so-called "trust water rights" if flows at the Murphy Gage fall below the minimum stream flows.

In 1994, the Department adopted Rules for Conjunctive Management of Surface and Ground Water Resources to provide a framework for responding to water delivery calls by holders of senior surface water rights against junior groundwater rights. Conjunctive management delivery calls were filed by various holders of spring water rights in the Thousand Springs area (Blue Lakes Trout Company, Clear Springs Foods, Rangen, etc.) and by seven canal companies and irrigation districts in the Magic Valley

[1] Includes crop irrigation requirement on groundwater irrigated lands and groundwater diversions from offsite, exchange, and Mud Lake wells.

[2] ESPAM 2.2 Calibration Report (1981-2018 period of record).

known collectively as the Surface Water Coalition[3] who divert water from sections of the Snake River which are supplemented by ESPA spring discharges in the American Falls area.

Groundwater users have reduced their diversions and invested tens of millions of dollars in managed aquifer recharge and other mitigation projects to avoid curtailment under the various surface water delivery calls. The State of Idaho, through IWRB, has also invested heavily in managed aquifer recharge to add groundwater to the ESPA. Groundwater users in tributary basins have not to date been required to contribute toward aquifer stabilization or mitigation activities.

Delivery calls under the Conjunctive Management Rules result in sporadic curtailment orders and mitigation plans to address particular injuries in particular years. This type of system is not an efficient or effective means of managing the long-term effects of groundwater withdrawals on hydraulically connected sources. This led the Director to designate the ESPA as a groundwater management area in 2016.

Key Department orders related to the Management Area include the following:

6.1 Moratorium on New Groundwater Rights

On May 15, 1992, the Director issued a Moratorium Order restricting the approval of new water right permit applications in the Snake River Basin upstream of the USGS gage at Weiser, Idaho. The Director amended the moratorium by orders issued January 6, 1993, and April 30, 1993. These orders stopped essentially all new development of groundwater rights from the ESPA.

6.2 Order Designating ESPA Groundwater Management Area

On November 2, 2016, the Director issued an Order Designating the Eastern Snake Plain Aquifer Groundwater Management Area stating: "A ground water management plan for the ESPA ground water management area would provide the framework for managing ground water in the areas within the ESPAM 2.1 model boundary to ensure a reasonably safe supply of ground water for irrigation of cultivated lands or other uses in the basin." (2016 Order Designating ESPA GWMA, p. 23)

6.3 2016 Measurement Order

On July 20, 2016, the Director issued a Final Order on Reconsideration ("2016 Measurement Order") requiring holders of groundwater rights from the ESPA to "install and maintain on each point of diversion or well, a measuring device of a type acceptable to the Department." (2016 Measurement Order, p. 13) The measuring device requirement was waived for three classes of water use: (1) domestic and stockwater purposes, as defined in Idaho Code § 42-111; (2) diversions or water systems with multiple diversions irrigating less than or equal to five acres; and (3) diversions or water systems with multiple diversions delivering groundwater for any purpose other than irrigation that divert less than or equal to 0.24 cfs. In addition, water users were allowed to seek a variance from the measuring device requirement under certain circumstances, where other data could be used to obtain an accurate measurement of the volume of water diverted. The 2016 Measurement Order remains in effect, and the Director has instructed watermasters to curtail diversion of groundwater that are not in compliance with the order.

[3] Twin Falls Canal Company, North Side Canal Company, American Falls Reservoir District #2, Milner Irrigation District, Burley Irrigation District, A&B Irrigation District, and Minidoka Irrigation District.

6.4 Amended Snake River Basin Moratorium

On October 21, 2022, the Director issued an Amended Snake River Basin Moratorium Order ("2022 Moratorium Order"), which, with a few exceptions, suspends "the processing and approval of presently pending and new applications for permits to appropriate water from the Snake River upstream from Swan Falls Dam and all surface and ground water sources in the trust water area and the non-trust water area …." (2022 Moratorium Order, p. 27.) The Management Area is located entirely within the area affected by the 2022 Moratorium Order.

7. Statutory Authority

Groundwater management areas are authorized under the Ground Water Act which has the following objective set forth in Idaho Code 42-226:

> GROUND WATERS ARE PUBLIC WATERS. The traditional policy of the state of Idaho, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the ground water resources of this state as said term is hereinafter defined and, while the doctrine of "first in time is first in right" is recognized, a reasonable exercise of this right shall not block full economic development of underground water resources. Prior appropriators of underground water shall be protected in the maintenance of reasonable ground water pumping levels as may be established by the director of the department of water resources as herein provided.

A "ground water management area" is defined as "any ground water basin or designated part thereof which the director of the department of water resources has determined may be approaching the conditions of a critical ground water area." Idaho Code 42-233b. A critical ground water area is "any ground water basin, or designated part thereof, not having sufficient ground water to provide a reasonably safe supply for irrigation of cultivated lands, or other uses in the basin at the then-current rates of withdrawal, or rates of withdrawal projected by consideration of valid and outstanding applications and permits, as may be determined and designated, from time to time, by the director of the department of water resources." Idaho Code 42-233a. Thus, a groundwater management area is a groundwater basin approaching the condition of not having sufficient groundwater to provide a reasonably safe supply for irrigation and other uses in the ground water basin at current rates of withdrawal.

The authority of the Director to designate a groundwater management area and adopt a groundwater management plan is set forth in Idaho Code 42-233b, which 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.
>
> Applications for permits made within a ground water management area shall be approved by the director only after he has determined on an individual basis that sufficient water is available and that other prior water rights will not be injured.
>
> The director may require all water right holders within a designated water management area to report withdrawals of ground water and other necessary information for the

> purpose of assisting him in determining available ground water supplies and their usage.
>
> 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 shall not be subject to administration on a time priority basis so long as they are in compliance with the ground water management plan.

The authority of the Director to regulate groundwater use is further defined in Idaho Code 42-237a.g:

> Water in a well shall not be deemed available to fill a water right therein if withdrawal therefrom of the amount called for by such right would affect, contrary to the declared policy of this act, the present or future use of any prior surface or ground water right or result in the withdrawing of the ground water supply at a rate beyond the reasonably anticipated average rate of future natural recharge. However, the director may allow withdrawal at a rate exceeding the reasonably anticipated rate of future natural recharge if the director finds it is in the public interest and if it satisfies the following criteria:
>
> 1. A program exists or likely will exist which will increase recharge or decrease withdrawals within a time period acceptable to the director to bring withdrawals into balance with recharge.
>
> 2. Holders of senior rights to use ground water will not be caused thereby to pump water from below the established reasonable pumping level or levels.

8. Plan Development Process

On June 5, 2023, Idaho Governor Brad Little directed the Department to form an advisory committee to develop an attainable and sustainable groundwater management plan for the ESPA. The Department invited representatives of ground water districts, municipalities, tributary basins, the Surface Water Coalition, Idaho Power Company, and the aquaculture industry to serve on the committee. Department employee James Cefalo was appointed to chair the committee and facilitate committee meetings. The committee was unsuccessful in developing a groundwater management plan by consensus, resulting in the initial advisory committee being disbanded in August 2024.

Remainder TBD.

9. Advisory Committee

9.1 Purpose

A new advisory committee will be formed by the Director to monitor Plan implementation and make recommendations to the Director for Plan adjustments. The committee and the Director will jointly hold an annual meeting to review Plan implementation. At each Adjustment Interval, the advisory committee may recommend to the Director adjustments to the Plan.

9.2 Composition

The advisory committee is composed of one representative of each ground water district and irrigation district representing groundwater users subject to the Plan, one representative from each Tributary Region subject to the Plan where a ground water district has not been formed, two representatives of the Surface Water Coalition, one representative of cities located within the Management Area, one representative of the food processing industry, one representative of the dairy industry, and one representative of the aquaculture industry. The Director may appoint one or more additional at large committee members. The Director may change the makeup of committee representation at any time after providing notice and soliciting input from the committee.

9.3 Appointment & Replacement

Each entity with a seat on the advisory committee will designate their representative to serve on the committee and one alternate to attend meetings when the designated member is unable to participate. Entities may at any time replace their representative or alternate by providing written notice to the committee chair.

9.4 Committee Meetings

The Director shall appoint a Department or an IWRB staff member to serve as the advisory committee chair. The duty of the committee chair is to schedule and conduct committee meetings and otherwise coordinate the work of the committee. The committee will meet at least once per year to review data concerning Plan implementation and the effect of actions taken under the Plan. Between *** and *** in the year prior to each Adjustment Interval, the committee will meet to discuss recommendations that may be made to the Director to improve the Plan. Recommendations supported by all committee members may be made by the committee chair on behalf of the committee. Recommendations for which there is not universal support may be made by individual committee members.

10. Objectives & Goals

10.1 Objectives

The Plan has two principal objectives: (1) stabilize the ESPA, and (2) manage the effects of groundwater withdrawals on the Snake River to ensure a reasonably safe water supply for irrigation and other water uses. The Plan seeks to achieve these objectives in a manner that keeps as many acres of farmland in production, and as many businesses in operation, as possible.

10.2 Goals

To achieve the above objectives, the Plan has the following goals:

(a) IWRB Recharge Target. The IWRB currently has a directive to accomplish 250,000 acre-feet of managed aquifer recharge annually. It is a goal of the Plan to increase the target to 350,000 acre-feet by the end of Year 2 (December 31, 2026).

(b) Groundwater Conservation. The Plan is initially designed to conserve *** acre-feet of groundwater annually. Groundwater allocations may be adjusted upward or downward to achieve and maintain aquifer stabilization.

(c) Tributary Basins. The boundary of the Management Area does not currently encompass most tributary basins. It is a goal of the Plan to expand the Management Area by the end of Year 2 (December 31, 2026) to include all tributary basins.

(d) Accounting Program. The Department will develop an accounting program by the end of Year 1 (December 31, 2025) to track Water Account balances and reassignments.

(e) Conservation Incentives. Develop and support programs to incentivize water conservation without fallowing farmland, such as conversion projects, groundwater conservation easements, and canal automation.

(f) Incidental Recharge. Develop and implement a strategy to incentivize and preserve incidental aquifer recharge from surface water irrigation and canal infiltration.

(g) Adapt and Improve. Observe hydrologic conditions and make improvements to the Plan at Adjustment Intervals to more effectively meet Plan objectives.

11. Water Rights Included in Plan

11.1 Generally

The Plan governs all water rights within the Management Area. The Plan is designed for water users in tributary basins to contribute equitably toward Plan objectives; however, water rights in tributary basins are not subject to the Plan until the Management Area is expanded to include them. Although the Management Area boundary does not initially include tributary basins, the Plan assigns allocations to tributary basins so that water rights in tributary basins can be brought into the Management Area without requiring revisions to the Plan.

11.2 Tributary Basins

The Department should take the following steps to expand the Management Area to include tributary basins that contribute inflow to the ESPA: 1) create a new water district or expand an existing water district to provide groundwater administration within the basin; 2) issue a measurement order requiring measurement of water diversions consistent with the Plan; and 3) issue an order expanding the Management Area to include the tributary basin.

Groundwater users within a tributary basin may seek to form a ground water district under Chapter 52, Title 42, Idaho Code, or seek to expand an existing district to incorporate the tributary basin, but such action shall not be prerequisite to expansion of the Management Area to include the basin.

Water allocations will be assigned to water users in tributary basins at the outset of the Plan, but they will not be required to comply with the Plan until the Department issues an order expanding the Management Area to include the tributary basin or otherwise require water users in the tributary basin to comply with the Plan.

Tributary basins that have an existing groundwater management plan that contributes equitably toward stabilization of the ESPA and management of the effects on other hydraulically connected sources may have their plan approved as a separate management plan under the Management Area, in which case compliance with such plan shall provide safe harbor from curtailment under Idaho Code 42-233b.

11.3 Non-Irrigation Water Rights

Holders of non-irrigation water rights may, with the approval of the Director, develop and implement a separate groundwater management plan so long as they contribute equitably toward stabilization of the ESPA and management of the effects on other hydraulically connected sources of water. Compliance with such plans shall provide safe harbor from curtailment under Idaho Code 42-233b.

11.4 Exempt Domestic Wells

Groundwater wells that are exempt from the permit requirement under Idaho Code 42-227 are not exempt from regulation under the prior appropriation doctrine. However, it is impractical to impose diversion restrictions and meter requirements on exempt domestic wells. Therefore, exempt domestic wells will not be assigned an Allocation under the Plan. Instead, owners of exempt domestic wells will be required to pay an annual impact fee to the Drought Resilience Fund to mitigate the effect of their groundwater use on the ESPA and hydraulically connected sources.

The amount of the impact fee will be determined by the Director to equitably represent the benefit to owners of exempt domestic wells of not having to reduce groundwater use, install meters, and take actions to manage the effects of their water use on hydraulically connected sources. The impact fee may be adjusted at each Adjustment Interval.

The advisory committee and the Department will cooperatively develop a pragmatic mechanism to collect impact fees, and pursue legislation if needed to facilitate the implementation and collection of impact fees.

11.5 Non-Depletive Water Uses

The Plan does not regulate water uses that do not deplete the water supply of the ESPA.

12. Aquifer Stabilization

The Plan will stabilize the ESPA by limiting the amount of groundwater withdrawn from the ESPA, encouraging managed aquifer recharge, and preserving incidental aquifer recharge.

12.1 Idaho Water Resource Board Aquifer Recharge

The Director and the advisory committee will seek to have the Idaho Water Resource Board's annual average aquifer recharge target increased from 250,000 to 350,000 acre-feet by the end of Year 2 (December 31, 2026). IWRB recharge performance will be measured on a 12-year trailing average.

12.2 Water User Allocations

The Plan defines the total volume of groundwater that may be diverted annually from the ESPA and tributary basins (Global Allocation), then allocates the Global Allocation among water users. At each Adjustment Interval, Water User Allocations may be adjusted upward or downward in accordance with section 15.

12.2.1 Global Allocation for Irrigation

The Plan is initially designed to limit groundwater irrigation diversions by *** acre-feet annually compared to baseline groundwater diversions. Baseline groundwater diversions are 2.6 million acre-feet as defined in the ESPAM 2.2 Calibration Report (1981-2018 period of record). Therefore, the initial Global Allocation is **** acre-feet. The Global Allocation will be divided among all users of water from the ESPA and tributary basins via the Water User Allocation formula described below.

12.2.2 Allocation for Irrigation Water Rights

Water User Allocations for individual irrigation water rights will be based on the following formula:

Water User Allocation = Base Allocation x Acres x PF x HF x GF x RF

Where:

Base Allocation = The base volume of water (acre-feet) that may be diverted per acre
Acres = Acres authorized for irrigation under the water right (subject to combined limits)
PF = Priority date adjustment factor
HF = Historic use adjustment factor
GF = Growing season adjustment factor
RF = Recharge adjustment factor

The recharge adjustment factor will be utilized to account for Water Systems for which at least *** percent of the groundwater diverted returns to the ESPA via canal infiltration or highly porous soil. Where applicable, the Department will determine the appropriate recharge adjustment factor using the best available science.

12.2.3 Allocations for Non-Irrigation Water Rights

Water User Allocations for non-irrigation water rights shall maintain parity with Water User Allocations for irrigation water rights based on their comparative depletions to the ESPA.

12.2.4 Ground Water District Allocations

The combined volume of water allocated to water users within a ground water district will be assigned to the district which shall determine how to equitably divide the total allocated volume among district patrons in a manner that serves the best interest of the patrons. Ground water districts may conduct managed aquifer recharge and other groundwater conservation activities to supplement the total Ground Water District allocation and/or create a supply of water that district patrons may draw upon to supplement their individual allocations or remedy excess water use.

12.3 Compliance with Water User Allocations

12.3.1 Compliance Period

Compliance with Water User Allocations is measured over four-year periods (Compliance Periods) to accommodate crop rotations.

12.3.2 Compliance Period Allocation

At the outset of each Compliance Period, water users will be allocated a four-year block of water (Compliance Period Allocation) calculated by multiplying their annual Water User Allocation by four. Water users are not restricted to the use of one-fourth of their Compliance Period Allocation during each year of the Compliance Period; rather, water users may divert more or less than one-fourth of their Compliance Period Allocation in a given year so long as water is not diverted at a rate of volume that exceeds the elements of the underlying water right(s).

12.3.3 Water Account

Each Compliance Period Allocation will be placed into a Water Account held in the name of the water right owner. Water may be diverted so long as the Water Account has a positive balance and the diversion does not exceed or violate any elements of the underlying water right(s).

The Department will develop an accounting program to track Water Account balances, reassignments of Water User Allocations between Water Accounts, and adjustments to Water Account balances to reflect IWRB Water Supply Bank leases and rentals. Ground water districts may utilize the Department's

accounting program or maintain a separate program for tracking use of allocations among Ground Water District patrons.

12.3.4 Pooling

Water users with multiple groundwater rights (owned or leased) may pool their allocations in the same Water Account. If a Water System has multiple water rights, the rights shall be pooled in the same Water Account.

12.3.5 Reassignment

Water Account balances, or portions thereof, can be reassigned to other water users within the same Region during a Compliance Period by providing written notice to the Department. Any reassignment must occur prior to the end of the Compliance Period in effect. The Department will notify affected persons and entities of reassignments and record the date the reassignment was made. Ground water districts may create and operate exchange markets to enable their patrons to exchange allocations internally or utilize the Department program for tracking reassignments.

12.3.6 Overdrawing a Water Account

If a Water Account is overdrawn, the water user shall be responsible to remedy the overdraft. Upon notice of the overdraft, the water user shall have 30 days to reassign water from another Water Account. If a water user fails to remedy the overdraft in full or in part within 30 days, the diversion shall be subject to immediate curtailment, and a penalty equal to the 50% of the overdraft shall be imposed. For example, if a Water Account is over-drafted by 100 acre-feet, a penalty of 50 acre-feet will be imposed.

If the initial overdraft and penalty are not remedied by reassigning water from another Water Account by the end of the Compliance Period, the penalty amount will be doubled, and the overdraft amount plus the cumulative penalty shall be deducted from the water user's following Compliance Period Allocation. For example, if a Water Account is over-drafted by 100 acre-feet, and the initial penalty of 50 acre-feet is not remedied by reassigning water from another Water Account by the end of the Compliance Period, the water user's following Compliance Period Allocation will be reduced by 200 acre-feet (100 acre-feet overdraft + 50 acre-feet initial penalty x 50 acre-feet additional penalty).

12.3.7 Carryover

Water Account balances are re-set at the beginning of each Compliance Period. Surplus Water Account balances do not carry over from one Compliance Period to the next, with the exception that 50 percent of surplus managed aquifer recharge performed in the final year of a Compliance Period will carry over to the following Compliance Period.

12.3.8 Conversions

Conversions of farmland from groundwater to surface water irrigation is an effective tool to reduce groundwater use while maintaining agricultural production. The effects of conversions will be reflected by reductions in groundwater pumping. Storage water may be used for conversions.

12.3.9 Managed Aquifer Recharge

Ground Water Districts and Irrigation Districts may conduct managed aquifer recharge to supplement their total allocation or to remedy excess water use by district patrons, if the following conditions are satisfied:

(a) The recharge occurs under existing water rights or temporary approvals authorizing groundwater recharge.
(b) The recharge occurs at a dedicated recharge site with accurate, continuous measurement and no outlet to a surface water source unless discharges are likewise measured.
(c) The recharge occurs within the same Compliance Period.
(d) The recharge occurs in the same Region where the Water User's pumping occurs.
(e) The recharge does not displace or diminish the public recharge program of IWRB.

12.4 Groundwater Conservation Programs

The state and federal government should continue to fund and support programs that limit the demand on groundwater supplies in the ESPA and its tributary basins. These programs include end-gun removal programs, groundwater conservation easements, CRP, CREP, etc. Ground Water Districts should coordinate efforts to implement these programs within their districts.

12.5 Incidental Recharge

The state should adopt policies to preserve incidental recharge. Federal and state agencies who provide funding for water efficiency projects, should allocate and award an equivalent amount of money to projects proposing to increase incidental recharge or enhance the ESPA.

13. Management of Effects on Hydraulically Connected Sources

The Snake River below Milner Dam is regulated separately from the Snake River above Milner Dam under the Two Rivers Doctrine; therefore, the effects of ESPA groundwater withdrawals on the Snake River above Milner Dam will be managed separately from the effects below Milner Dam.

13.1 Two Rivers Doctrine

The Two Rivers Doctrine was decreed in the Snake River Basin Adjudication as follows:

> The exercise of water rights above Milner Dam has and may reduce flow at the dam to zero. For the purposes of the determination and administration of rights to the use of the waters of the Snake river or its tributaries downstream from Milner dam, no portion of the waters of the Snake river or surface or ground water tributary to the Snake river upstream from Milner dam shall be considered.[4]

The Two Rivers Doctrine is codified in Idaho Code 42-203B with identical language. It is incorporated into the Idaho State Water Plan as follows: "Water resource policy, planning, and practice should continue to provide for full development of the Snake River above Milner Dam recognizing that the exercise of water rights above Milner Dam has and may reduce flow at the Dam to zero."[5]

In keeping with the Two Rivers Doctrine, the entire flow of the Snake River is often diverted above Milner Dam. However, the Snake River quickly regains form below Milner Dam via ESPA spring discharges below Milner Dam in the Twin Falls and Thousand Springs areas.

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[4] In re SRBA Case No. 39576, Partial Decree Pursuant to I.R.C.P. 54(b) For General Provisions in Basin 02, Nov. 20, 2012.

[5] 2012 Idaho State Water Plan, p. 46.

Since surface water rights below Milner Dam have no claim to ESPA spring discharges above Milner Dam, the effects of groundwater withdrawals on spring discharges below Milner Dam must be managed separately from the effects of groundwater withdrawals on spring discharges above Milner Dam.

13.2 Management of Effects Above Milner Dam

The effects of ESPA groundwater withdrawals on Snake River flows above Milner Dam will be managed by investing in capital projects to provide a reasonably safe supply of water to the Surface Water Coalition and enhance drought reslience. Potential projects include securing additional storage water supplies, targeted aquifer recharge, targeted conversions of farmland from groundwater to surface water irrigation, exchange wells, canal automation, pump-back projects, and irrigation system improvements. These projects will be financed by annual contributions by groundwater users into a Drought Resilience Fund.

Groundwater users will initially contribute $*** million annually into the Drought Resilience Fund. The total contribution will be allocated among groundwater users pro rata in proportion to their respective Water User Allocations, subject to an adjustment based on steady-state impacts to the Near Blackfoot to Milner reach of the Snake River as determined by the ESPA Model. Annual contributions may be adjusted at each Adjustment Interval as needed to effectively manage the effects of ESPA groundwater withdrawals on Snake River flows above Milner Dam.

Drought Resilience Fund monies will be held in an account maintained by the IWRB. Funding requests will be made to the Advisory Committee which will determine which funding requests to approve. Fund monies may be leveraged to secure matching funds available under government or private programs.

13.3 Management of Effects Below Milner Dam

The Swan Falls Agreement provides the framework for managing ESPA spring discharges below Milner Dam, allowing full development of the ESPA so long as Snake River flows at the Murphy Gage equal or exceed certain minimum flows. The Swan Falls Agreement states:

> State and Company agree that the resolution of Company's water rights and recognition thereof by State together with the Idaho State Water Plan provide a sound comprehensive plan for the management of the Snake River water shed. Thus, the parties acknowledge that this Agreement provides a plan best adapted to develop, conserve, and utilize the water resources of the region in the public interest.[6]

The Idaho State Water Plan incorporates this framework as follows:

> The main stem Snake River above Hells Canyon Dam will be managed to meet or exceed the following minimum daily flows at the designated stream gaging stations: Milner 0 cfs, Murphy 3,900 cfs (4/1 through 10/31) 5,600 cfs (11/1 through 3/31) ... These minimum stream flows provide the management framework for optimum development of water resources in the Snake River Basin. The minimum stream flow water rights shall be administered in priority with other water rights.[7]

This framework was reaffirmed by the State of Idaho in the Framework Reaffirming the Swan Falls Settlement dated March 25, 2009.

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[6] Swan Falls Agreement, p. 5, sec. 11.

[7] 2012 Idaho State Water Plan, p. 43.

It is anticipated that the groundwater conservation and recharge activities prescribed by the Plan will ensure that Snake River flows at Murphy Gage continue to meet or exceed the minimum flows prescribed by the Swan Falls Agreement. So long as the minimums are met, no further action is necessary to manage the effects of groundwater pumping on ESPA discharges below Milner Dam. If Snake River flows below Milner Dam fall below the minimums prescribed in the Swan Falls Agreement, so-called "trust water rights" are exposed to curtailment.

The Idaho Water Resource Board has formed a Swan Falls Implementation Group and tasked it with (i) developing protocol to predict Snake River flows at the Murphy Gage based on ESPA groundwater level trends, precipitation patterns, new appropriations, and changes in conservation practices, and (ii) developing a process for responding to an actual or predicted shortfall in minimum Snake River flows at Murphy Gauge. The process developed by the Swan Falls Implementation Group to prevent or respond to a breach of the minimum flows at Murphy Gage may be incorporated into the Plan in the future.

14. Water Measurement and Reporting

14.1 Measurement of Groundwater Levels

The Department will continue to measure and monitor groundwater levels across the ESPA. Currently, Department staff conduct regular measurements of water levels in hundreds of wells across the ESPA.

The Department will identify not less than *** wells within each ESPA Region to represent groundwater levels within the Region. If a representative well is removed from the Department's groundwater level measurement program for any reason, the Department will find a replacement well, as close as possible to the well to be removed, with water levels similar to the well to be removed. The Department will update the Advisory Committee about any representative wells that are replaced.

The Department will measure groundwater levels in each set of representative wells every spring, prior to the beginning of the irrigation season. The Department will calculate and report at each Annual Meeting of the Advisory Committee each Regional Groundwater Level, the ESPA Groundwater Level, each Regional Groundwater Level Change, and the ESPA Groundwater Level Change.

14.2 Measurement of Groundwater Diversions

14.2.1 Measuring Devices

Water right owners must install and maintain a Department-approved measuring device with totalizing meter on each point of diversion or obtain a variance from the Department in accordance with the measurement order governing the diversion. If a measurement order does not require a measuring device but the Department has information that the water user is diverting more water than is allowed, the Department may require that a measuring device be installed under the Plan.

14.2.2 Frequency of Readings

Flow measurements for non-irrigation diversions shall be read annually. Flow measurements for irrigation diversions shall be read monthly in June through October and weekly when a water system is in the last five percent of their total allocation for a compliance period. Water users may employ telemetry, data loggers, self-reporting with photo evidence, and other techniques to report water diversions. Ground Water Districts shall report measurement data at the same frequency that data is collected by the Department.

14.2.3 Tracking Annual Allocation and Water Use

The Department, in consultation with the Advisory Committee, shall develop a computer program to track allocations, reassignments of allocations, adjustments due to Water Supply Bank leases and rentals, excess usage and associated penalties.

14.2.4 Reporting

The Department will submit an annual report to the Advisory Committee by March 1 showing, for the prior year, the total volume diverted compared to the Global Allocation, and total volume diverted within each Region compared to the cumulative Water User Allocations within the Region.

14.2.5 Noncompliance

Water users will be given 30 days to repair or replace a broken flow meter or measuring device. If a flow meter cannot be repaired or replaced within 30 days due to circumstances beyond the control of the water user, the water user shall diligently prosecute the repair or replacement. Intentional failure to maintain a working flow meter may result in curtailment until a working meter is installed.

15. Plan Adjustments

At each Adjustment Interval, Plan requirements may be adjusted to more effectively meet the objectives defined in section 10.

15.1 Aquifer Stabilization

At each Adjustment Interval, the Director may adjust the Water User Allocations as needed to achieve and maintain aquifer stabilization within an ESPA Region, provided that Water User Allocations shall not be adjusted upward or downward by more than *** percent at any Adjustment Interval.

In determining whether to adjust Water User Allocations, the Director shall evaluate and consider all water inputs to the ESPA Region and all water outputs from the ESPA Region. Because ESPA Regions are hydraulically connected, the Director may adjust Water User Allocations in contributory regions to aid in achieving and maintaining stable groundwater levels within the target ESPA Region.

Since the Regional Groundwater Level Change may not be uniform between Regions, the changes made to Water User Allocations at each Adjustment Interval may not be uniform between Regions. Thus, beginning with the first Adjustment Interval, the Water User Allocations in one Region may differ from the Water User Allocations in another Region.

The Regional Groundwater Level Change represents groundwater levels in ESPA Regions only. The Plan does not require measurement of groundwater levels in Tributary Regions. Instead, each Tributary Region will be linked to the ESPA Region to which it is tributary, and adjustments to Water User Allocations within the Tributary Region will mirror adjustments to Water User Allocations for the linked ESPA Region, unless the Tributary Region has a separate management plan approved by the Director that contributes equitably toward stabilization of the ESPA.

15.2 Management of Effects on Hydraulically Connected Sources

At each Adjustment Interval, the Director shall evaluate the observed effects of actions implemented under the Plan to manage the effects of groundwater withdrawals from the ESPA on Snake River flows above Milner Dam and below Milner Dam. Above Milner Dam, the Director may make such adjustments

as are needed to ensure a reasonably safe water supply of water for the Surface Water Coalition. Below Milner Dam, the Director may regulate groundwater use in accordance with the Swan Falls Agreement.

15.3 Adjustment Procedure

During the month of February prior to each Adjustment Interval, the Advisory Committee shall meet to review the actions taken under the Plan during the current Compliance Period and the prior Compliance Period, and the observed effects of such actions. By April 15, recommendations for Plan adjustments shall be submitted to the Director in writing. The Advisory Committee may make recommendations that have the support of all committee members. Individual members of the Advisory Committee and members of the general public may also submit recommendations. All recommendations shall be filed with the Department. The Department shall post all recommendations to its website by April 20. Persons or entities requesting a hearing prior to amendment of the Plan shall submit a hearing request by April 30. If a hearing is requested, it shall be held by August 30. Any Department order adjusting the Plan shall be issued by October 31. If the Department does not issue an order adjusting the Plan, the Plan shall continue unchanged until the next Adjustment Interval.

16. Safe Harbor

In accordance with Idaho Code 42-233b, water users who comply with the Plan shall not be subject to curtailment.

Appendix 1

Map of ESPA Watershed identifying ESPA Regions and Tributary Regions

Appendix 2

Near Blackfoot to Milner reach gains *** to ***

Appendix 3

Milner to King Hill reach gains *** to ***

From: TJ Budge
To: Cefalo, James
Subject: Updated groundwater management plan
Date: Tuesday, August 27, 2024 10:51:29 PM
Attachments: 20240827 GWMP Draft (IGWA).docx

James,

At the close of the advisory committee meeting held August 20, you invited participants to submit updates to their respective groundwater management plans by August 28, should they wish. Attached is an updated plan submitted on behalf of IGWA.

I understand you will be submitting to Director Weaver a report on the work of the advisory committee which will include some of the information considered by the committee along with the proposed management plans submitted by different stakeholders. I kindly ask that your report include the following three points.

First, the attached plan represents IGWA's effort to reach a mutually acceptable plan that could be supported by all members of the committee. While the ground water districts generally support the attached plan, some elements represent a compromise by the districts to appease other committee members. Therefore, IGWA and the districts reserve the right to advocate to the Director for plan management plan elements that differ from the attached plan.

Second, the most significant point of disagreement among committee members, as you know, is whether the plan will be designed to stabilize the ESPA or raise the water table across the ESPA. On this point, the ground water districts are united and adamant that both Idaho law and sound economic policy require that the plan be designed to stabilize the aquifer at the level that sustains full economic development of the resource, and employ other strategies to manage the effects of groundwater withdrawals on the Snake River. We assume the Director will hold a hearing or, at a minimum, invite comment from stakeholders before adopting a management plan; therefore, I will not elaborate here on the legal and factual foundation for the stabilization objective.

Third, a significant issue not addressed in the attached plan is whether the Director must determine a priority date to which he will curtail groundwater rights in order to stabilize the aquifer. Some ground water districts are of the opinion that Idaho Code 42-233b requires the Director to first determine a curtailment date before adopting a management plan. If so, it would not be necessary for the plan to prescribe a universal formula for defining water user allocations as prescribed in section 12.2 of the attached plan. Instead, the Director would simply determine the curtailment date, and then ground water districts and other water user

groups could develop their own management plans (or sub-plans) to manage water usage among their patrons and take other actions to provide equivalent groundwater savings in a way that is more satisfactory to their patrons.

Finally, I want to sincerely thank you for all the time and effort you put into facilitating meetings and negotiations among the advisory committee. It was a tough assignment, and you were the right man for the job. Your steady hand, trusted judgment, and willingness to explore creative solutions is very appreciated. Although the committee was not successful in reaching mutual agreement on a complete plan, the discussions among the committee contributed directly to many of the elements of the attached plan, much of which reflects agreement among most if not all committee members.

Thank you,

T.J. Budge
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