# ESPA GWMA Advisory Committee Combined Framework for Management Plan

#### 1. General Provisions

#### 1.1 Definitions.

- (a) Department means Idaho Department of Water Resources.
- (b) Director means the Director of the Department.
- (c) ESPA means Eastern Snake Plain Aquifer.
- (d) GWMA means Ground Water Management Area.
- (e) Plan means this management plan for the ESPA GWMA.

Unresolved: Should the plan include a definitions section? Some of the comments provided on the draft goals asked for key terms to be defined. If a definitions section is used, what other key terms should be defined?

# 1.2 Background.

(a) ESPA GWMA. On November 2, 2016, the Director issued an *Order Designating the Eastern Snake Plain Aquifer Ground Water Management Area* ("ESPA GWMA Order"). The following findings of fact and conclusions of law from the ESPA GWMA Order provide a brief overview of the hydrology of the ESPA and the need for a management plan:

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.

The ESPA is hydraulically connected to surface water sources, including the Snake River. The ESPA discharges to the Snake River at several locations, notably springs in the American Falls reach above Milner Dam, and in the Thousand Springs reach below Milner Dam.

The water in the ESPA comes primarily from tributary basins, either groundwater underflow from tributary aquifers or water in tributary streams that infiltrates directly through the streambed and into the ESPA or indirectly when it is used for irrigation. Consumptive use in tributary basins generally reduces storage in the ESPA because the aquifer is hydraulically connected to the Snake River.

The ESPA is a vital source of water for the State of Idaho. Approximately a million acres of land on the Snake River Plain are irrigated by ground water pumped directly from the ESPA. The ESPA is hydraulically connected to the Snake River and indirectly supports surface water irrigation of roughly another million acres. ESPA-supported agriculture is crucial to Idaho's food supply and to the economies of communities across southern Idaho.

Between 1952 and 2013, ESPA storage decreased by an estimated 13 million AF, and spring flows at Thousand Springs dropped from a peak of approximately 6,700 cfs to 5,200 cfs. From 1980 to 2013, ESPA storage declined by an even greater average of 260,000 AF annually demonstrating that declines in the aquifer are accelerating. While there have been brief periods of recovery (increased aquifer levels and spring discharges), the overall downward trend of decreasing ESPA storage and spring discharges has continued.

[A]s a result of chronic declines in ESPA storage and spring discharges, in many years the ESPA ground water supply is not sufficient to satisfy senior priority water rights diverting from the ESPA and hydraulically connected sources unless ESPA withdrawals under junior priority ground water rights are curtailed, and/or the junior water right holders mitigate. The Director concludes that the ground water basin encompassing the ESPA may be approaching a condition of not having sufficient ground water to provide a reasonably safe supply for irrigation and other uses occurring within the basin at current rates of withdrawal.

The past ten years of litigation arising out of individual delivery calls under the Conjunctive Management Rules are symptoms of a larger underlying problem, i.e., continuing declines in ESPA storage and spring discharges. Delivery calls under the Conjunctive Management Rules result in sporadic curtailment orders and mitigation plans to address particular injuries in particular years. Delivery calls are not an efficient or effective means of addressing the underlying problem of chronic declines in ESPA storage and spring discharges, which have resulted from several factors and have developed over many years.

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. The record confirms that such an approach is necessary if the objectives of arresting and reversing chronic declines in ESPA storage and spring discharges are to be realized.

Unresolved: Should the plan include this type of summary of the 2016 Order? I pulled the above excerpts from the 2016 Order to provide a high-level snapshot of the ESPA without getting lost in details of previous administrative actions or delivery calls.

- (b) Measuring Device Order. On July 20, 2016, the Director issued a Final Order on Reconsideration ("2016 Measurement Order") requiring holders of ground water 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." The measuring device requirement was waived for three classes of water use: (1) domestic and stockwater uses as defined by Idaho Code § 42-111; (2) diversions of ground water or water systems with multiple diversions irrigating less than or equal to five acres; and (3) water systems with multiple diversions delivering ground water 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 water diverted. The Director instructed watermasters to curtail any water user who was out of compliance with the 2016 Measurement Order. The 2016 Measurement Order is still in effect.
- (c) Amended Snake River 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* at 27. The ESPA GWMA is located entirely within the area affected by the 2022 Moratorium Order.

Unresolved: Should the plan include this type of reference to the 2022 Amended Snake River Moratorium?

Unresolved: Should the background section include a summary of the 2001 Order Designating the American Falls GWMA? Should background include a summary of the CAMP process?

**1.3 Statutory Authority.** Idaho Code § 42-233b describes the process used by the Director to designate a GWMA and to adopt a ground water management plan and states, in pertinent part:

[GWMA] 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. . . .

When a [GWMA] 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 [plan] for the area. The [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

[plan] shall not be subject to administration on a time priority basis so long as they are in compliance with the [plan].

# 2. Objectives

## 2.1 General Objectives.

- (a) To minimize the risk of future delivery calls or other administrative actions;
- (b) To provide safe harbor from curtailment under the Plan to those water users who comply with the Plan;
- (c) To avoid the curtailment of or the reduction of acres irrigated with ground water, to the extent possible;
  - (d) To ensure a reasonably safe water supply for irrigation and other water uses;
  - (e) To prevent further declines of water levels in all areas of the ESPA;
- (f) To manage the effects of ground water withdrawals on the ESPA and on any other hydraulically connected sources of water; and

(g) To incre	ease the volume of water held in the ESPA	by acre-fee
per year over a _	year period.	

Unresolved: What is the appropriate rate of recovery (increase in volume of water held in ESPA over a specified time), if any? SW group proposes a rate of recovery of approximately 200,000 acre-feet per year (the average rate of recovery needed to reach 2001 water levels in 25 years). GW group proposes no recovery. Cities suggest that the plan should primarily focus on arresting declines rather than recovery, possibly over a 25-year period.

Unresolved: Should the plan establish an end goal for recovery or simply set a rate of recovery?

Unresolved: Other objectives identified by the parties that do not have consensus: (1) Quantify the impacts and responsibility of legacy withdrawals on ESPA storage and spring discharge. (2) Improve spring discharge and river flows in all reaches of the Snake River.

## 2.2 Short-Term Objectives (1-5 years).

(a) Stabilize the ESPA by preventing any additional reductions in the volume of water held in the ESPA.

#### 2.3 Long-Term Objectives.

#### 3. Source Measurements

#### 3.1 Ground Water Levels.

(a) The Department will continue its current program of tracking water levels across the ESPA. Regular measurements of water levels in approximately wells are conducted each year and synoptic measurements of water levels in approximately wells are conducted every five years. [Need data from GW measurement program]
(b) The Department shall identify a subset of monitoring wells that provide reasonable representation of water levels across the entire ESPA. The water levels in
these wells shall be measured in each year to estimate the total annual volume change for the ESPA from the previous year to the current year. For purposes of this Plan, the Department shall use ayear trailing average to calculate the
annual volume change for the FSPA

Unresolved: Should the plan incorporate Mike McVay's suggestion to conduct a fall measurement of representative wells to calculate the annual volume change in the ESPA? This volume change could then be used to determine the annual allocation under the plan.

Unresolved: All committee members agree that there must be some averaging when evaluating the change in aquifer storage. GW group proposes a 12-year trailing average. SW group proposes a 3-year trailing average. Slide #35 of McVay's presentation provides a comparison of a 3-year average, a 10-year average and a 12-year average.

#### 3.2 Reach Gains and Spring Flows.

Unresolved: Should the plan require measurement of reach gains or spring flows? SW Framework proposes tracking progress under the plan by evaluating flows in the Near

Blackfoot to Neeley (or Milner) reach of the Snake River and monitoring spring flow at specific sites. Jennifer Sukow and Mike McVay explained that the most reliable way to track progress under the plan is to monitor ground water levels. McVay described the difficulties of using reach gains or spring flow to track progress. If ground water levels increase, then the reach gains in the Snake River and the spring flow would also increase. Could the plan use ground water levels as the metric to determine annual allocation, but also track reach gains and spring flow to better understand the correlation of aquifer levels (ESPA volume) to reach gains and spring flow?

# 4. Ground Water Diversions for Large Irrigation Use (diversions irrigating more than five acres)

#### 4.1 Calculating Annual Allocation for Irrigation Use.

(a) Prior to (Nov/Dec?) each year, the Department shall calculate the annual allocation for the following year. The annual allocation shall be calculated as follows:

Unresolved: Should the annual allocation be based on the (multi-year average) volume change in the ESPA? Should the committee create a table to show how the allocation would change based on volume changes in the aquifer? The benefit of a table format is that the adaptive management can be built into the plan.

Unresolved: What should the initial GWMA-wide allocation be? Could it be derived from the total diversion and total reduction numbers used in the 2015 Agreement?

Unresolved: Should the plan include a formula to calculate the allocation for each diversion or each system? If not, should the plan include a formula to calculate the allocation for larger areas (GWDs)? Should GWDs adopt their own plans to allocate their allocation between their patrons? GW framework proposes that water user groups (GWDs) be allowed to divide their allocations between their patrons.

Unresolved: Should the allocation system be tied to total diversions or consumptive use? If the change in allocation (year to year) is significant and dynamic, is there a need to track and regulate consumptive use? If initial reductions are not true reductions in consumptive use, water levels may continue to decline, which would result in reduced annual allocations.

Unresolved: How should the annual allocation (total or individual) change over time if the recovery targets are not met?

#### 4.2 Special Provisions for Annual Allocation.

## (a) Carryover of Annual Allocation.

Unresolved: Should water users be allowed to carry over all or a portion of their annual allocation from one year to the next? Carryover might promote multi-year planning and conservation. Without carryover, water users would have an incentive to divert (or market) their full allocation every year. On the other hand, allowing carryover might eliminate the benefits of a wet year. If, for example, spring rain reduces the overall demand significantly, allowing carryover could simply shift that water use to the following year, thereby eliminating any gains to the aquifer from the wet year. If the change in allocation (year to year) is significant and dynamic, carryover may be inconsequential.

#### (b) Transferring Annual Allocation.

Unresolved: Should water users be allowed to market/move unneeded or unused allocation? Allowing allocation to be transferred might promote planning and conservation. A water user might decide to grow a crop with low water demand in the hopes of marketing the unneeded water. On the other hand, allowing transfers increases the likelihood that more of the total allocation will be used. If the change in allocation (year to year) is significant and dynamic, transferring allocation may be inconsequential. If transfers are allowed, should there be restrictions on the distance that an allocation can be moved? Kept within a GWD?

(c) Excess Use. If a water user exceeds the annual allocation for a measured irrigation system, their annual allocation for the following year will be reduced by the excess volume diverted.

Unresolved: Is this the proper way to handle excess use? Could the excess use be resolved by transferring unused allocation from other systems? Should there be a monetary penalty for excess use? Should there be a volumetric penalty imposed for excess use? It would be easier for the Department to impose a volumetric penalty on future use rather than a monetary penalty. Should excess use be deducted from the following year's allocation? GW framework proposes a reduction from the following year plus a volumetric penalty.

**4.3 Tracking Annual Allocation and Water Use.** The Department, in consultation with the Advisory Committee (described below), should develop a computer program to track annual allocations, carryover (if allowed), transfers (if allowed), and the annual diversions for each measured irrigation system in the ESPA.

#### 5. Ground Water Diversions for Other Uses

#### 5.1 Municipal Diversions.

Unresolved: Cities propose that their *Settlement Agreement* and *Stipulated Mitigation Plan* be referenced and incorporated into the Plan, without additional obligations.

- 5.2 Large Stockwater, Commercial and Industrial Diversions.
- 5.3 Subdivision Domestic Diversions.
- **5.4 Small Irrigation Uses.** Consistent with the 2016 Measurement Order, diversions that, in total, irrigate five acres or less are not measured.
  - 5.5 Small Domestic and Stockwater Diversions.

Unresolved: How should any of the systems in this section be handled in the Plan? How do these water users reduce their pumping or mitigate the effects of their pumping?

## 6. Enforcement and Compliance

**6.1 Water Districts.** All areas of the ESPA GWMA should be incorporated into water districts. The Department shall create new water districts or expand existing districts to ensure that the ESPA GWMA is fully covered by active water districts. Each water district must establish an annual budget and assess its water users to perform the measurement and monitoring tasks described in this Plan.

#### 6.2 Measurement of Diversions.

(a) Measuring Devices. The water users in the ESPA GWMA shall install measuring devices consistent with the 2016 Measurement Order (described above). Irrigation diversions, where the combined irrigation use is greater than five acres, shall be equipped with a Department-approved flow meter or shall obtain an approved

variance from the measuring device requirement. Non-irrigation diversions where the combined water rights from the diversion authorize more than 0.24 cfs shall be equipped with a Department-approved flow meter or shall obtain an approved variance from the measuring device requirement. Water users shall be responsible for the installation and maintenance of measuring devices.

(b) Unmeasured diversions. Diversions that fall below the thresholds described in the 2016 Measurement Order are not measured. The Department or the applicable water district may nevertheless require a water user to install a measuring device, regardless of the quantity diverted, if there is evidence that the water user is exceeding the diversion limits of the applicable water rights.

6.3 Frequency of Readings.	The watermasters for the water districts regulating
ground water under this plan shall	collect readings at each measured point of diversion

Unresolved: What is the proper frequency of readings? Should water districts use resources to closely monitor all water users, even those who regularly comply with their annual allocation? Should the plan establish a less-strict frequency for water users who have historically stayed within their allocation and a more-strict frequency for water users who exceed their allocation?

## 6.4 Reporting.

Unresolved: Should the plan require reporting? If so, who should do the reporting and at what frequency?

Unresolved: If the Department or the GWDs create a computer program for tracking annual allocations and diversions, could the program include a function to easily generate annual reports?

**6.5 Compliance.** For purposes of this plan, compliance means \_\_\_\_\_\_. If a water user complies with the provisions of this Plan and any amendments thereto, the water user is not subject to curtailment under this Plan or Idaho Code § 42-233b. Compliance with the Plan does not protect a water user from curtailment orders or mitigation obligations associated with delivery calls under the Department's Conjunctive Management Rules (IDAPA 37.03.11).

Unresolved: What is compliance? How does an individual water user comply with the plan? Is it simply by staying within their annual allocation? Staying within a pumping allocation and maintaining a measuring device might be the only activities where compliance could be evaluated on an individual level. Other requirements (conversion quotas, recharge quotas, etc.) would be a shared obligation and would necessitate an evaluation of overall compliance. If the plan requires watermasters to curtail a diversion when a water user reaches their annual allocation, can any individual water user ever be "out of compliance"? Stated differently, if a water user is shut off when they reach their annual allocation, what is the difference between compliance and noncompliance? It appears the water user would get shut off either way.

## 7. Aquifer Enhancement and Conservation Measures

## 7.1 Recharge.

(a) Managed Public Recharge. The state of Idaho should continue to fund and support managed public recharge in the ESPA. The Board should expand its goal of annual recharge in the Upper Snake River Basin from 250,000 acre-feet per year to 350,000 acre-feet per year, consistent with law and agreements. The Board should also expand its managed recharge program to include sites above American Falls Reservoir. Preference for expenditure of public funds should be given to sites where recharge would most-effectively increase long-term aquifer storage and sites that address immediate water supply shortfalls. The state, through the Board, should fund recharge infrastructure projects, to capture excess water in the Upper Snake River Basin for recharge use when all Snake River water rights are satisfied.

Unresolved: Can this paragraph be drafted as anything more than a policy statement? The legislature and IWRB would not be bound by this Plan. However, the Plan can represent the position of the Advisory Committee and their respective groups.

# (b) Managed Private Recharge.

Unresolved: Should plan address privately held recharge rights and private recharge? Should the plan promote private recharge? Does it make a difference if the private recharge is for credit (direct offset for pumping) or if the private recharge is conducted to generally improve aquifer levels to avoid decreases to the annual allocation? Does private recharge provide any real benefit to the aquifer if it is only used to offset new or expanded consumptive use?

(b) Incidental Recharge. The state should adopt policies to preserve incidental recharge.

Unresolved: Should plan require additional state-funded recharge to offset future reductions in incidental recharge? GW framework raises additional questions about out-of-basin transfers and the State Water Plan's policy of zero flow at Milner Dam.

- **7.2 Conversions.** The Committee supports using surface water to irrigate land under ground water irrigation rights during times when the surface water supply is sufficient to satisfy existing water rights on the surface water source.
- **7.3 Cloud Seeding.** The Board, Idaho Power Company, and water user groups should continue their joint efforts to fund the cloud seeding program in the Upper Snake River Basin.

#### 7.4 Other Conservation Measures.

- (a) End gun removal program
- (b) Ground water conservation easements. If water rights are held unused or retired by agreement, priority should be given to water rights that will have the greatest positive effect on areas of reduced water supply.
  - (c) CREP

Unresolved: For the items described in this entire section, should the plan set targets or quotas? For example, should the plan require the ground water pumpers as a group to conduct a specified amount of private recharge every year (or over a multi-year period) or to enroll a specified number of acres in CREP?

If there are recharge or conservation requirements established in this section, the work would likely be accomplished through ground water districts (GWDs). What about water users who fall outside of existing GWD boundaries? What about water users who have opted out of ground water districts?

## 8. Managing Effects on Hydraulically Connected Sources

Unresolved: How will the plan manage the effects on hydraulically connected sources of water?

#### 9. Tributary Basins

The ESPA GWMA should be expanded to include all diversions that affect water levels in the ESPA. If needed, Idaho statutes or rules should be amended to facilitate such an expansion of the ESPA GWMA. This Plan has been drafted in a way that water rights and diversions in tributary basins can be brought into the ESPA GWMA without major revisions to the plan.

#### 10. Future Diversions

#### 10.1 Exempt Domestic Uses.

Unresolved: Should the plan also address exempt stockwater uses under this section?

10.2 Other Uses.

#### 11. Transfers of Ground Water Rights

Unresolved: Should the plan set limits on when and how ground water rights can be transferred within the GWMA? Should the plan require full mitigation for depletions to the Near Blackfoot to Neeley (or Milner) Reach? Should the plan confirm the current mitigation thresholds used by the Department for determining mitigation?

## 12. Advisory Committee

The Director shall create a committee of stakeholders to monitor the implementation of the Plan and provide suggestions for amendments to the plan. The committee should meet \_\_\_\_\_ per year to review data from the Department and the stakeholders. The committee should also meet every \_\_\_\_\_ years to review the actual rate of recovery and recommend changes to the plan to achieve the rate of recovery specified above. In addition to these regular meetings, the Director may ask the committee to convene to address questions regarding implementation of the Plan or to consider additional data or amendments to the Plan.

Unresolved: Should the plan set forth the composition of the committee? Unresolved: GW framework proposes no aquifer recovery. SW framework proposes an average rate of recovery of 200,000 acre-feet per year for 25 years.

Unresolved: Should the plan include regionality? In previous discussions, the ground water users felt that the plan needed to measure compliance and success on a regional basis. Mike McVay identified some of the drawbacks with designating regions.

Unresolved: Should the plan include a dispute resolution provision?

Unresolved: Should the plan authorize or create a technical advisory committee (TAC)? If so, what should the TAC do? Cities propose that the TAC would determine what constitutes a reasonably safe supply.

#### **Stated Key Considerations**

IPC: Plan should not adjust or restate the zero flow at Milner doctrine.

SWC: Plan must create a bright line between compliance with the plan and compliance with mitigation plans under delivery calls (CMR).

SWC: Plan should not modify any existing agreements (public or private), policy, statute, or administrative rule.

SWC: Allocations or reduction requirements should be based on water right priority dates.

IGWA: Plan should not require any aquifer recovery.

Spring Users: Plan should rely on more than just ground water levels to track progress. Cities: Plan should incorporate Cities' mitigation plan (from the SWC delivery call) and not impose any additional requirements on the Cities.