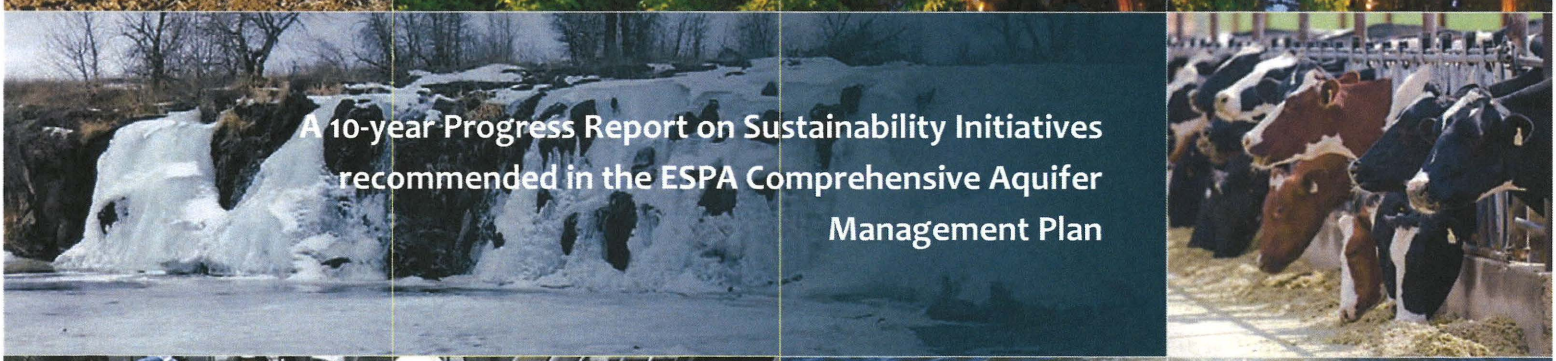
Restoring the Eastern Snake Plain Aquifer



A 10-year Progress Report on Sustainability Initiatives recommended in the ESPA Comprehensive Aquifer Management Plan

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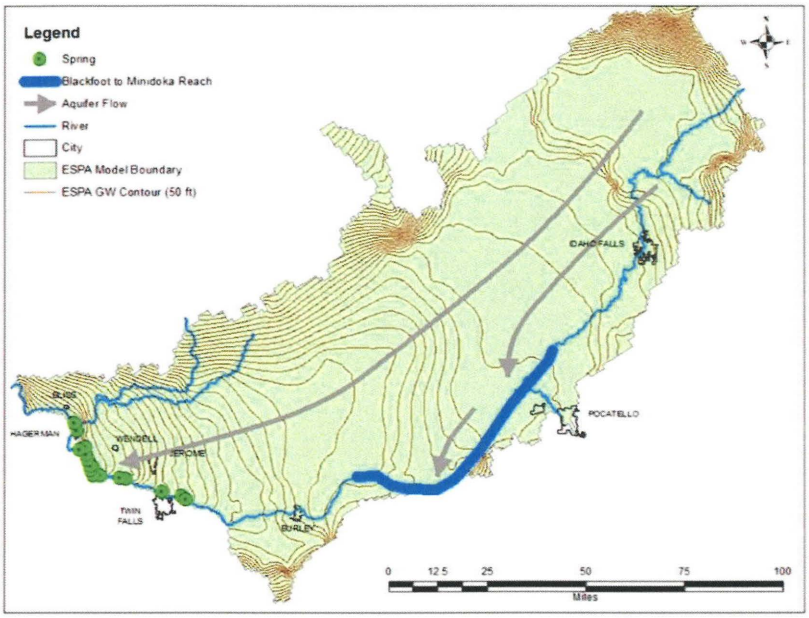
Legislative Request for a Plan Review

On May 8, 2019 the Idaho Water Resource Board (IWRB) received a letter from Idaho House Speaker Scott Bedke requesting the IWRB complete a 10-year review of the Eastern Snake Plain Aquifer Comprehensive Aquifer Management Plan (ESPA CAMP) implementation progress and submit appropriate planning recommendations to the Legislature and the Governor's office by the start of the next regular legislative session. The IWRB has completed the review through the following steps:

- Inventorying aquifer management actions including those done by the State and by private parties;
- Reporting on aquifer levels, spring flows, and river reach gain responses;
- Reporting on finances provided by the State for aquifer management;
- Conducting the review in the open, through IWRB and committee meetings open to the public;
- Obtaining formal stakeholder comment.

The Eastern Snake Plain Aquifer



The ESPA region produces roughly a quarter of all goods and services within the State of Idaho resulting in an estimated value of billions annually. Water is a critical element for this productivity.

The ESPA primarily discharges to the Snake River through springs in two reaches of the river: Near Blackfoot to Neeley and Kimberly to King Hill (also known as Thousand Springs). Discharge from these springs is controlled by the water level in the ESPA. Higher water levels in the aquifer increase discharge at springs, and declining water levels in the aquifer result in decreased discharge at the springs.

Decreases in aquifer water levels in the ESPA between 1952-2015 (by approx. 13,000,000 acre-feet) resulted in declining spring and river flows, prompting numerous water use conflicts that had the potential to disrupt the economic productivity of the region. In 2006 the Idaho Legislature requested the IWRB complete the ESPA CAMP to establish a long-term program for restoring the ESPA to sustainable levels.

Eastern Snake Plain Aquifer Comprehensive Aquifer Management Plan (ESPA CAMP)

In 2007, the IWRB appointed an Advisory Committee to assist with preparing and recommending a plan for managing water on the ESPA. The IWRB and the Advisory Committee worked together to develop the ESPA CAMP. It was submitted to the 2009 Idaho Legislature and became effective as a Part B of the Idaho State Water Plan upon adoption of HB 264. The CAMP established a long-term program for stabilizing and recovering the ESPA through a phased approach to implementation, together with an adaptive management process to allow for adjustments in management as implementation proceeds. The long-term goal is to incrementally achieve a net water budget change of 600,000 acre-feet annually by the year 2030 through implementing a mix of management actions.

ESPA CAMP Hydrologic Targets		
Action	**Phase 1 Target (KAF)**	**Long-Term Target (KAF)**
Aquifer Managed Recharge	100*	150 – 250*
Demand Reduction	95	250 – 350
Ground Water to Surface	100	100

Water Conversion		
Weather Modification/Cloud Seeding	50	No Target
TOTAL	**200 – 300**	**600**

**In 2016 SCR 136 provided legislative approval to increase the phase 1 recharge goal from 100 KAF to 250 KAF on an average annual basis prior to 2019, pursuant to the requirement of the Swan Falls Re-Affirmation Agreement.*

Funding for Phase 1 actions was proposed to be established through water user assessments, but the assessment approach was not authorized or implemented.

Legal Settlements

In June 2015, the groundwater users and surface water users entered into a settlement to resolve conflicts associated with the effects of groundwater pumping on ESPA-connected surface water sources in the Snake River. The settlement was between several large canal companies known collectively as the Surface Water Coalition (SWC) and a large group of groundwater irrigation entities represented by Idaho Ground Water Appropriators, Inc. (IGWA). This is known as the IGWA-SWC Settlement. The primary objectives of the IGWA-SWC settlement are to 1) stabilize the ESPA to protect and preserve water supplies for both surface and ground water users; 2) provide a "safe harbor" from curtailment to participating groundwater users; 3) mitigate injury to the SWC; and 4) minimize economic impacts to individual water users and the economy of the State of Idaho arising from water supply shortages.

The IGWA-SWC Settlement requires ground water users to: 1) reduce their diversions from the ESPA by 240,000 acre-feet annually —a consumptive use volume reduction of about 12 to 13 percent over historic water use; 2) lease and deliver to the SWC 50,000 acre-feet of storage water annually; 3) deliver surface water to certain lands historically irrigated with groundwater; 4) not irrigate sooner than April 1 or later than October 31; and 5) install measurement devices on all groundwater wells by 2018.

To meet IGWA's obligation to reduce water diversions by 240,000 acre-feet annually, reduction actions are being implemented on a local level by each of the participating groundwater districts. Each groundwater district has been allocated a portion of the 240,000 acre-feet based on the amount of water its members have diverted historically, and has developed and implemented its own plan for meeting its share of the reduction. A variety of tools are being employed, including pumping reductions, end gun removals, crop rotations, fallowing, conversion from groundwater to surface water irrigation, and private managed recharge.

The IGWA-SWC Settlement has been approved by Idaho Department of Water Resources (IDWR) as a mitigation plan. In addition, the State of Idaho agreed to recharge 250,000 acre-feet into the ESPA on an average annual basis. This commitment was confirmed in 2016 by legislative resolution (SCR 136) along with the appropriation of necessary funding.

The IGWA-SWC Settlement identifies a recovery goal to return the average groundwater level of the ESPA to 1991-2001 average water levels by the year 2026. In the interim, the ESPA water level must be stabilized at the 2015 level by 2020 and increased to a point halfway between the 2015 level and the ultimate recovery goal by 2023. If these benchmarks or the recovery goal are not achieved, IGWA will be required to take adaptive measures to achieve the goal. A network of 20 "sentinel wells" with a long-term record of groundwater level measurements is being utilized to measure progress.

A few groundwater entities have settlements separate from the IGWA-SWC Settlement. Southwest Irrigation District (SWID-SWC Settlement), A&B Irrigation District (A&B ID-SWC Settlement), a group of cities utilizing groundwater on the ESPA (Cities-SWC Settlement), and a group of industries each developed their own settlement agreements with the SWC.

Implementation Progress

The ESPA CAMP contemplated that funding for management actions in the plan would come from water user assessments. Funds from the assessments would be deposited into an IWRB account and an Implementation Committee, made up of affected stakeholder groups, would help the IWRB prioritize spending and build stakeholder support for management actions. The Implementation Committee was made up largely of members from the original Advisory Committee that

helped develop the CAMP. It was formed to serve at the pleasure of the IWRB, and throughout 2009, worked to develop the water user funding assessment legislation. Ultimately, however, the 2010 Legislature elected not to pass the assessment legislation. Without a funding mechanism, the Implementation Committee struggled and only met a few times.

In the absence of a cohesive funding mechanism to provide the necessary resources for project development, implementation of the CAMP during the first few years was limited and consisted of 1) leveraging Federal Funds to the extent possible (CREP, AWEP, and RCPP) and 2) a State-Funded Pilot Managed Recharge Program by the IWRB.

The pace of CAMP implementation changed in 2014 when the Legislature passed HB 547, which provided up to $5 million annually from the Cigarette Tax to the IWRB to be used for "Statewide Aquifer Stabilization." The IWRB began receiving an additional annual appropriation of $5 million from the General Fund in 2016, which is distributed to the IWRB's Secondary Aquifer Fund through the IDWR appropriation bill to be used for "Water Sustainability" and "Aquifer Management." Funding from the Legislature for the IWRB Managed Recharge Program, combined with the actions agreed to in the various SWC settlements, have led to significant progress toward implementation of the management goals outlined in the ESPA CAMP.

With legislative funding, major management actions proposed in the ESPA CAMP have been implemented as follows:

- Managed Aquifer Recharge – The IWRB with state funding and Legislative direction (SCR 136, 2016) is implementing a Recharge Program with a target of 250,000 AF on an average annual basis.
- Demand Reduction – Groundwater users are implementing 240,000 AF reduction under the IGWA-SWC Settlement; additional reduction of 6,000 AF being implemented under the SWID-SWC Settlement
- Ground Water-to-Surface Water (Soft) Conversions – Groundwater users are installing projects where feasible; some conversion projects are counted toward 240,000 AF reduction in the IGWA-SWC Settlement; others counted toward the separate 79,000 AF in SWID-SWC Settlement and 8,000 AF in A&B ID-SWC Settlement
- Cloud Seeding – The IWRB, Idaho Power Company, and various water users groups are implementing cloud seeding as a cooperative program.

The ESPA CAMP established a long-term goal of 600,000 AF of average annual change to the aquifer water budget. As of 2019, major management actions listed below, have resulted in over 550,000 AF annual water budget change:

Progress Towards ESPA CAMP Hydrologic Targets		
Action		**Acre-Feet**
IWRB Managed Recharge Program	Existing Average Annual Capacity	202,000*
Demand Reduction		
IGWA-SWC Settlement	2016-2018 Average	239,967
SWID-SWC Settlement	2016-2018 Average	6,421
Ground Water to Surface Water (Soft) Conversions**		
IGWA-SWC Settlement	2016-2018 Average	78,875
A&B ID-SWC Settlement	2016-2018 Average	8,340
Weather Modification/Cloud Seeding	2016-2018 Average	TBD***
Other Annual Activities		
Storage Water from Cities-SWC Settlement	Annual Contribution for Aquifer Management	7,650
SWID-SWC Settlement Recharge	In addition to IWRB Recharge; 2016-2018 Average	10,894
TOTAL AVERAGE ANNUAL WATER BUDGET CHANGES		**554,147**
Opportunistic Activities - Wet Years Only		
Storage Water from SWC-IGWA Settlement	*50, 000 AF contributed for recharge if not needed by SWC*	*50,000*

IGWA Private Managed Recharge	*IGWA-SWC Settlement; 2016-2018 avg.*	*145,130*

**If mid-2019 level of capacity had been in place in 2000, the IWRB Managed Recharge Program from 2000 to 2019 would have recharged approximately 202,000 AF on an average annual basis given historical hydrology.*
***Soft Ground Water to Surface Water Conversions are dependent upon available surface water supply which varies from year to year.*
****Measured by average annual increase in unregulated runoff; currently estimated to be approximately 537,000 acre-feet annually across the ESPA. Efforts are currently underway to determine where the additional water supply is used.*

Progression of IWRB Recharge Pilot Program after Passage of the ESPA CAMP

After legislative approval of the CAMP in 2009, the IWRB proceeded with development of the IWRB Managed Recharge Pilot Program. This pilot program ran until 2014. The pilot program struggled with funding issues as a dedicated, ongoing funding source had not yet been identified. Between 2009 – 2012, which were above-average water years, the pilot program achieved 100,000 acre-feet of recharge. However, in other years very little was recharged, with an average of 73,002 acre-feet per year during the 2009 - 2014 period. The IWRB used this pilot program to determine how a managed recharge program would fit with operational constraints such as water right administration, Snake River reservoir operations, canal operations, canal maintenance and repair schedules, recharge locations, retention of recharged water in the aquifer, and water quality issues.

Recharge Definitions

Natural Recharge - Rain and snow infiltrating into ground water aquifers

Managed (or Artificial) Recharge - Intentional placement of water into a ground water aquifer. In the ESPA, managed recharge is done through un-lined canals, recharge/spill basins, and injection wells

Incidental Aquifer Recharge – The incidental (or unintentional) placement of water into an aquifer resulting from normal water deliveries for irrigation or other uses (canal losses) Idaho Code § 42-234(5)

Current Status of the IWRB Managed Recharge Program

The current status of the IWRB Managed Recharge Program can be summarized by two different metrics: 1) average annual volume of recharge accomplished since the ESPA CAMP as approved in 2009; and 2) current long-term average annual capacity for recharge.

Average Annual Volume of Recharge since the CAMP was Approved in 2009

While this is a useful metric, is does not reflect the true current status of the IWRB Managed Recharge Program. Large-scale infrastructure construction to increase recharge diversion capacity did not begin until 2014. The physical diversion capacity of the IWRB Managed Recharge Program was limited from 2009 to 2014, and the IWRB lacked the physical capacity to recharge even in years when the water supply was plentiful.

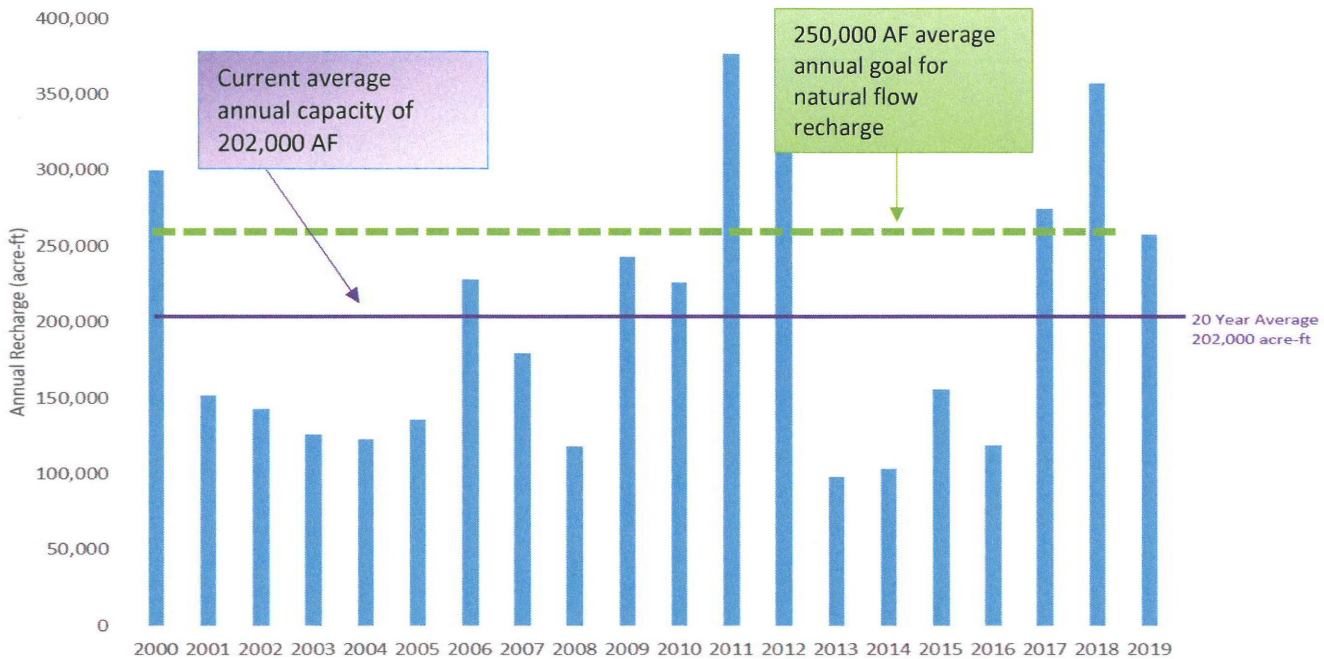
Recharge Season (fall through spring)	Natural Flow Recharge Volume (acre-feet)
2009-2010	79,894
2010-2011	61,588
2011-2012	143,839
2012-2013	32,435
2013-2014	3,867
2014-2015	69,201
2015-2016	66,897
2016-2017	317,714
2017-2018	474,839
2018-2019	310,132
2009-2019 Natural Flow Average Annual Volume	**156,041**

Current Long-Term Average Annual Capacity for the IWRB Managed Recharge Program

As construction to increase diversion capacity has been ongoing since 2014, this metric provides a better picture of the current status of the IWRB Managed Recharge Program. Because the available water supply from the Snake River for recharge runs in cycles with several wet years in a row followed by several dry years in a row, the average annual capacity must be considered over a long period of time to account for both wet and dry cycles. The recharge program capacity must

be sized to average 250,000 acre-feet per year, even though the recharge volume will be substantially less in dry years. This means that more than 250,000 acre-feet must be recharged in wet years to reach an average annual of 250,000 acre-feet per year.

The following chart shows the current average annual recharge volume if the amount of recharge capacity as of mid-2019 had been in place since the year 2000. The current average annual capacity of the IWRB Managed Recharge Program is 202,000 acre-feet. In other words, over a 20-year period, the IWRB does not yet have enough capacity to average 250,000 acre-feet. The IWRB needs to build more capacity to recharge more water during the wet years in order to offset the limited recharge that will occur in dry years.



**If mid-2019 level of capacity had been in place since 2000, the IWRB's Managed Recharge Program from 2000 to 2019 would have recharged approximately 202,000 AF on an average annual basis.*

The IWRB estimates that an additional 300 cfs of capacity will be needed in the Magic Valley region below American Falls Reservoir, and an additional 200 cfs will be needed in Upper Snake River Valley above American Falls Reservoir to reach the 250,000 AF average annual volume set forth in the ESPA CAMP. The IWRB has projects currently underway to accomplish a substantial portion of the needed capacity. Going forward, the IWRB will need continued funding to develop a minimum of an additional 150 cfs in the Upper Snake River Valley.

Average Annual Volume Definition for IWRB Managed Recharge Program

Neither the ESPA CAMP, the Swan Falls Re-Affirmation Agreement, nor SCR136 identified how to define the term "average annual" for the purpose of the IWRB Managed Recharge Program. The Snake River upstream from Milner Dam is the water source for nearly all of the IWRB's recharge activities, and tends to run in cycles with several wet years in a row (for example 2009-2012 and 2017-2019), followed by several dry years in a row (for example 2013-2016). <u>For this reason, moving forward a minimum of a 30-year rolling average is needed. A 30-year rolling average will allow for accounting of both wet years when the average annual target of 250,000 acre-feet will be exceeded, and dry years when the average annual target of 250,000 acre-feet will not be met.</u>

Storage Water Use for IWRB Managed Recharge Program

The IWRB will not seek to use storage water for recharge in order to avoid putting additional pressure on the Upper Snake Reservoir System. However, several of the SWC Settlements outlined above require that parties provide storage water for

aquifer management. In some years, the parties to these SWC Settlements have chosen to request that the IWRB divert the storage water using IWRB Managed Recharge Program infrastructure. However, the parties could choose other means of using that storage water for aquifer management. For this reason, any storage water provided by private parties for recharge pursuant to the various SWC Settlements should not be counted toward the IWRB's 250,000 acre-foot average annual goal.

Role of "Private Managed Recharge"

The IGWA-SWC Settlement allows IGWA to offset their required demand reductions with managed aquifer recharge. This creates a market for recharge by private or third parties to recharge on behalf of IGWA or other groups of ground water pumpers. "Private Managed Recharge" is being done with a variety of water sources, including: 1) Storage water leased through Upper Snake Rental Pool; 2) Natural flow irrigation rights leased through Water Supply Bank; 3) Natural flow recharge rights held by irrigation districts and canal companies; and/or 4) Temporary water right permits during large flood flow events. Idaho Code § 42-1737, provides the IWRB must approve all projects diverting natural flow for recharge in excess of 10,000 AF on an average annual basis. As "private managed recharge" makes use of various water supply sources, it is unclear whether any "private managed recharge" efforts proposed or currently underway meet the threshold outlined in § 42-1737. To date, no proposals pursuant to § 42-1737 have been presented before the IWRB. Since "private managed recharge" is done pursuant to the provisions of the IGWA-SWC Settlement, it should be considered separate from the IWRB's 250,000 acre-foot average annual recharge goal under the ESPA CAMP.

IWRB Managed Recharge Recommendations

The IWRB's Managed Recharge Program is a large undertaking that involves the expenditure of significant legislative funding and interests a wide variety of stakeholders. Stakeholder involvement in the ESPA CAMP was contemplated from the outset and has been reaffirmed through the 2009 Swan Falls Reaffirmation Agreement and other documents. For this reason the creation of a Recharge Program Advisory Committee may be warranted. Such an Advisory Committee should be made of interested stakeholders and provide a forum for open and transparent discussion regarding the IWRB's Managed Recharge Program.

Weather Modification (Cloud Seeding)

The ESPA CAMP provided for implementation of Weather Modification, more commonly referred to as cloud seeding, as a management strategy to augment water supply. Unlike other strategies intended to use existing water supply to change the net aquifer water budget, winter cloud seeding is the only ESPA CAMP strategy that increases surface water supply by targeting high elevation winter storm systems to enhance the snowpack. Runoff resulting from the enhanced snowpack can be captured in storage reservoirs, and prolongs river flow during the summer and fall to fill natural flow water rights-thereby decreasing dependence on storage water and improving carryover in reservoirs. This additional water supply supports all beneficial uses including irrigation, hydropower, managed aquifer recharge, fish and wildlife, and water quality. It also reduces the need to use ground water by providing surface water for surface-to-ground water conversion projects, a direct benefit to the ESPA. The average amount of water, or increased unregulated runoff, resulting from winter cloud seeding activities across the ESPA is estimated to be over 537,000 acre-feet annually, with an average increase in total snowpack of approximately 5% in the Henry's Fork, 8% in the Upper Snake River, and over 10% in the Wood River basins. At this time, the IWRB has not determined to what extent the cloud seeding program enhances the aquifer separate from the surface water enhancement. Studies are underway to refine these estimates with improved data collection and modeling tools, and to determine where this additional water supply is used. The total increase in average unregulated runoff if the program is developed to "full buildout" capacity is estimated to be 777,000 acre-feet total across the ESPA. However, continued program growth is largely dependent upon support for ongoing program refinement and stakeholder participation.

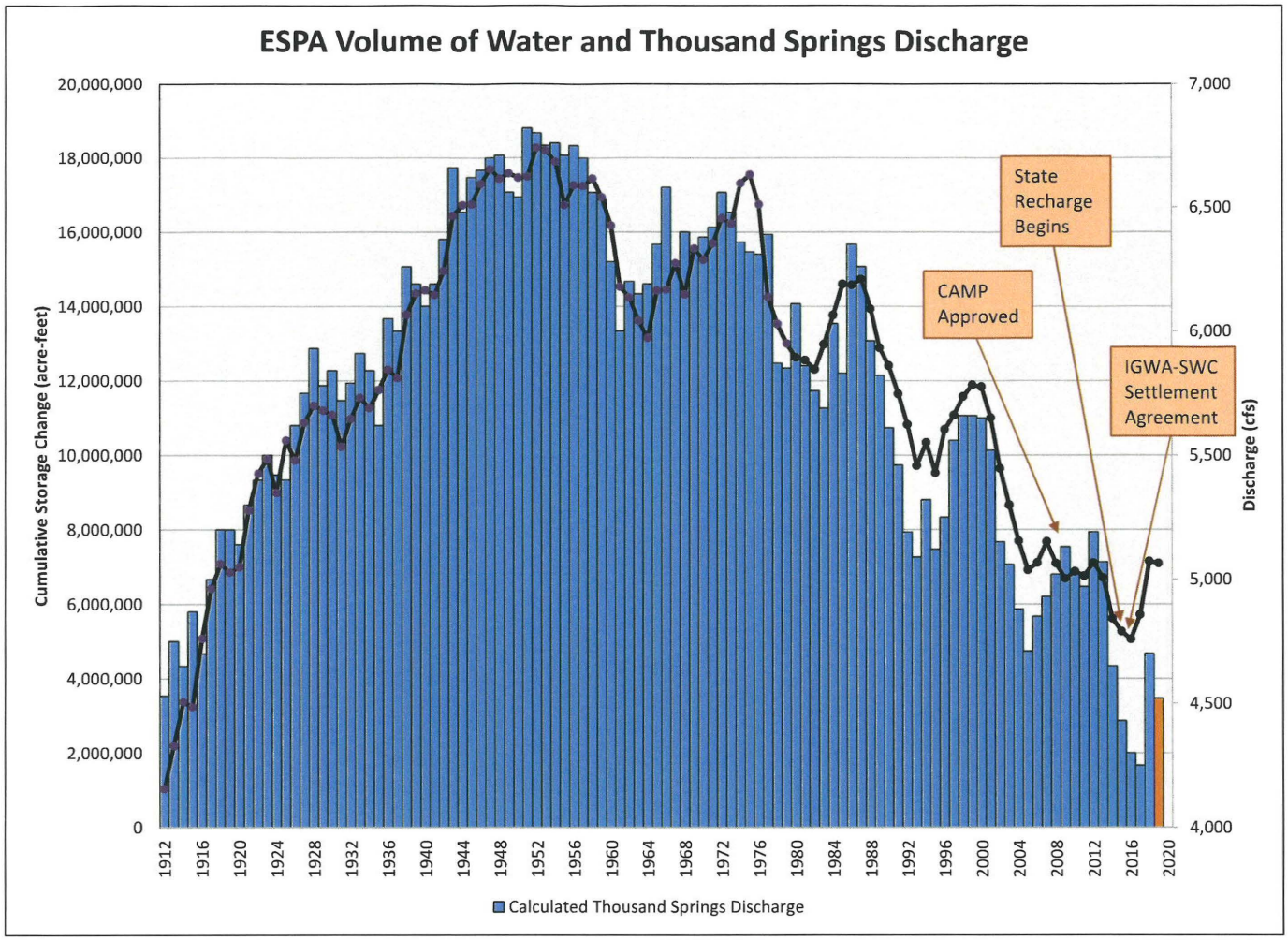
Funding

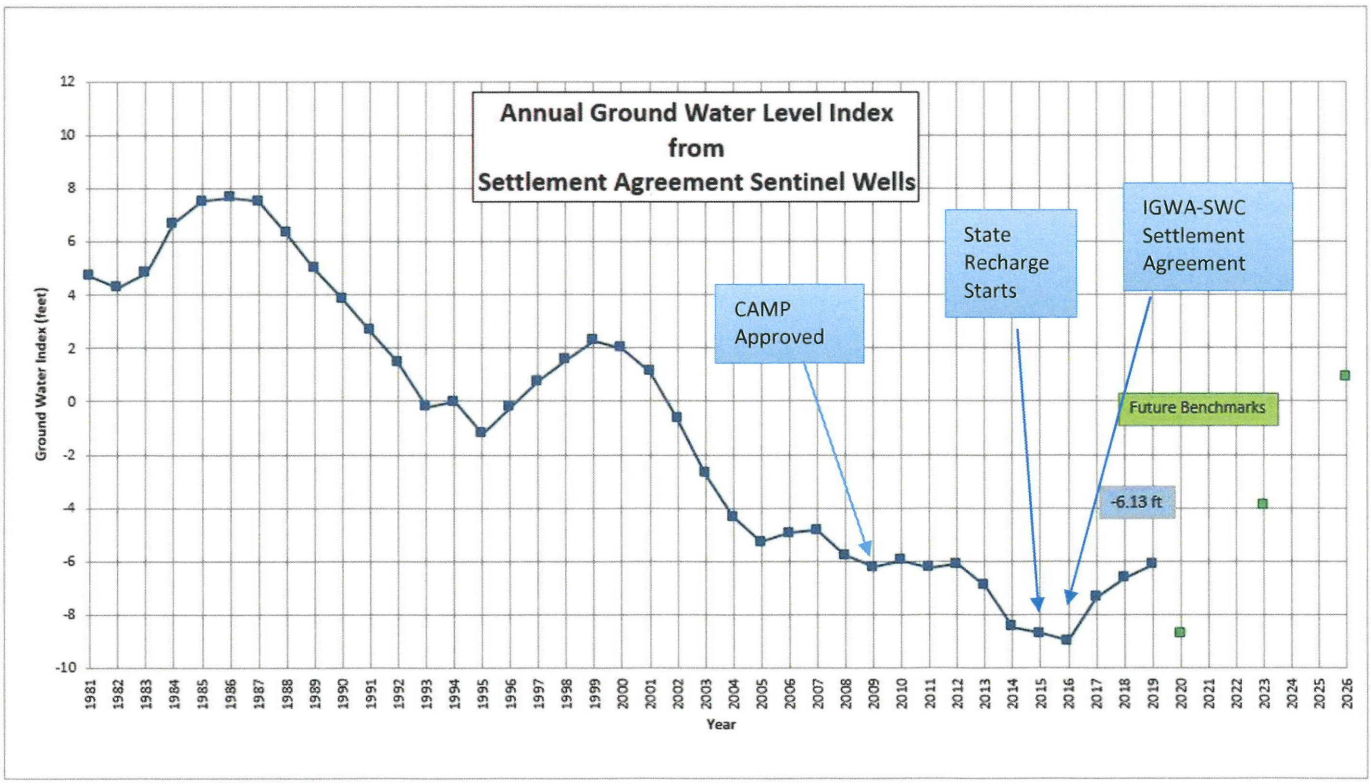
The IWRB has established a process for developing the Secondary Aquifer Fund budget, and using the combined amount received from the Cigarette Tax (HB 547), General Fund (annual IDWR appropriation bill) and accrued interest. Each spring,

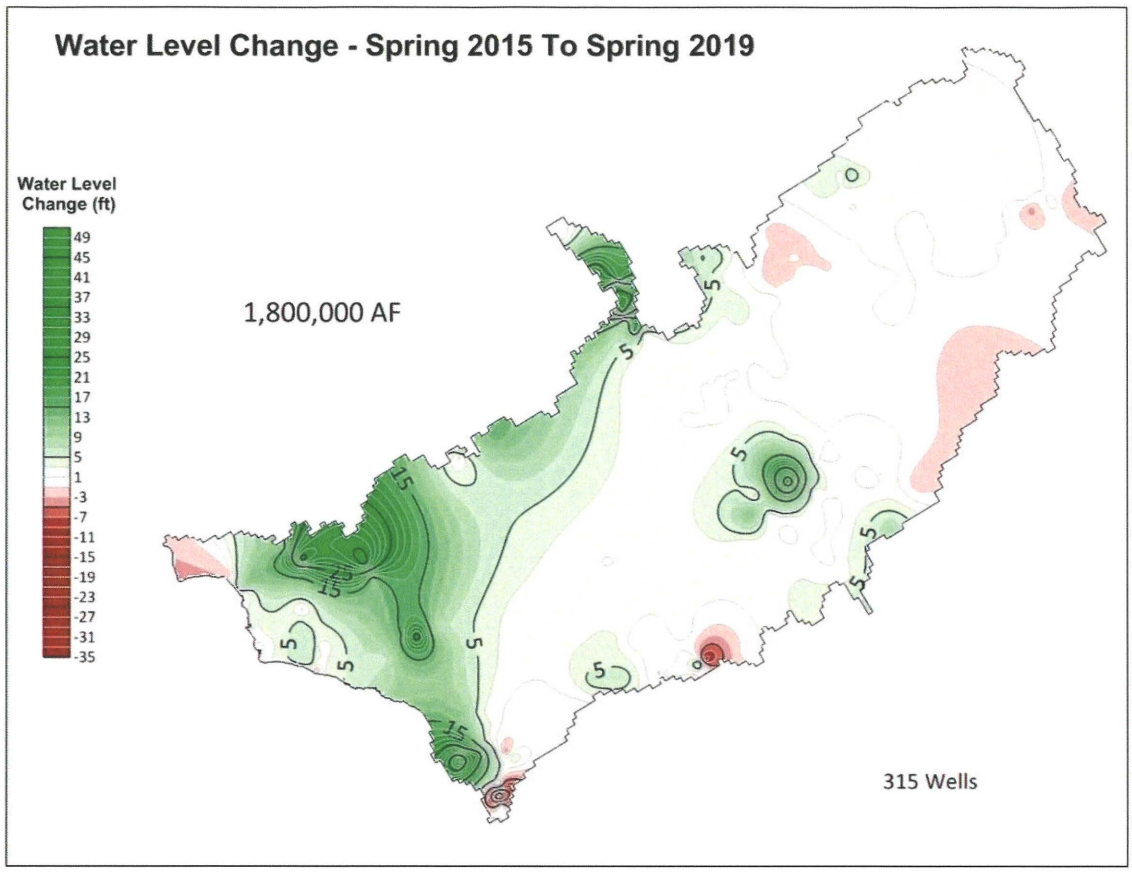
the IWRB's Finance Committee convenes to discuss the upcoming year's priorities, and develop a Secondary Aquifer Fund budget to recommend to the full IWRB for adoption at their regularly scheduled May meeting. As of June 2019, the IWRB has received a total of over $54 million in the Secondary Aquifer Fund. Approximately $35 million has been either committed/expended on the ESPA, with over $29 million of that allocated towards the IWRB's Managed Recharge Program, $3.5 million towards the Cloud Seeding program, and over $2 million towards aquifer monitoring and modeling. Of the $29 million authorized for the IWRB's Managed Recharge Program, about $19 million has been spent on recharge infrastructure, approximately $9.5 million allocated toward recharge operations/maintenance/conveyance fees, and approximately $1 million toward recharge monitoring. The IWRB recognizes the Cigarette Tax revenue is declining and the IWRB is near the end of the priority for distribution from this source. Therefore, as that revenue source declines, the IWRB may be in need of additional funding sources to fully fund water sustainability and aquifer management projects.

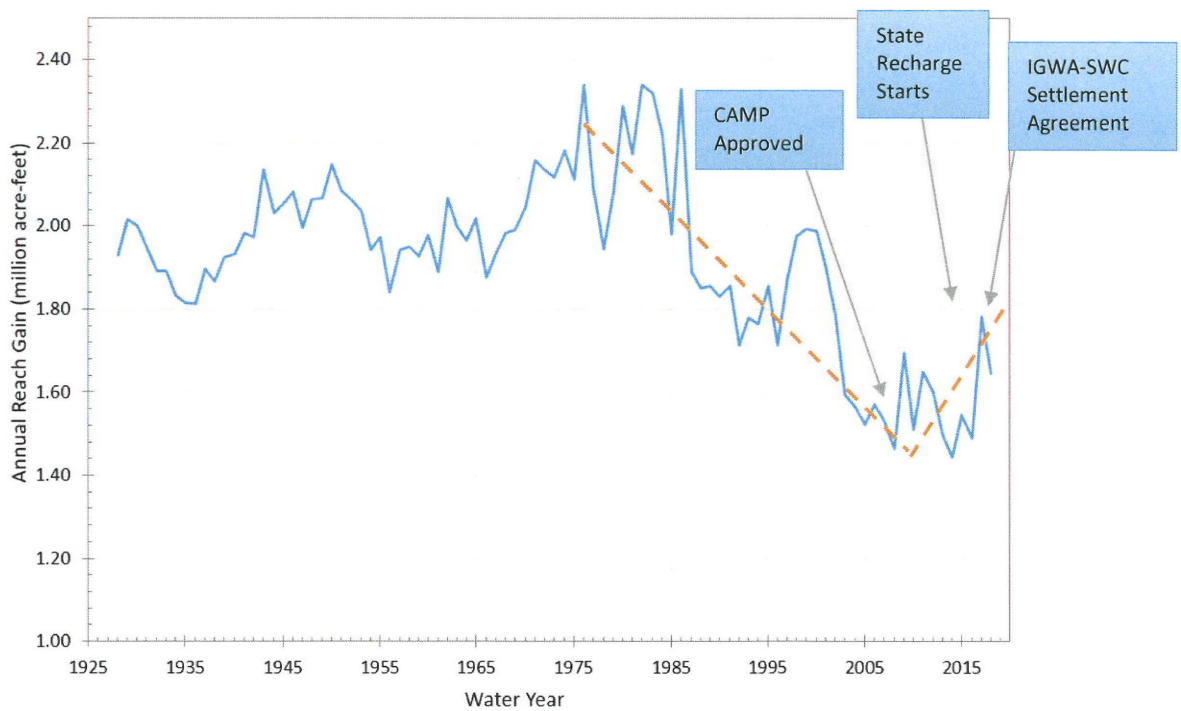
Aquifer Storage Results

Changes in aquifer water levels reflect changes in the amount of water stored in an aquifer. Water levels in the ESPA have indicated a long-term downward trend in aquifer storage since the late 1950's. Although there have been short periods of water-level recovery over this period, the water levels have not recovered to previous peak levels. Aquifer storage rose significantly from 2016 - 2018 due to a number of factors. A portion of the observed rise was due to the IWRB's Managed Recharge Program and the reductions associations with the various SWC Settlements. However, a larger portion of the increase was likely due to the exceptional high precipitation the region received from 2016 - 2018. Although precipitation was above average from 2018 - 2019, there was less precipitation than in previous two years. This relative reduction in precipitation resulted in a slight decrease in aquifer storage as compared to the previous two years. This reduction is in comparison to two exceptional years, and aquifer storage has increased substantially since 2015. This reduction in storage is not an indication that management activities are ineffective, but instead a reflection of the fact that aquifer-storage gains in the ESPA are temporary that the aquifer discharges through springs, and river gains, and is affected by agricultural and other consumptive uses. The nature of the system produces undulations in aquifer storage due to weather, whereas the goal of IWRB management activities is to produce a long-term upward trend.


ESPA Volume of Water and Thousand Springs Discharge
Cumulative Storage Change (acre-feet)
Discharge (cfs)
State Recharge Begins
CAMP Approved
IGWA-SWC Settlement Agreement
Calculated Thousand Springs Discharge


Annual Ground Water Level Index from Settlement Agreement Sentinel Wells
Ground Water Index (feet)
Year
CAMP Approved
State Recharge Starts
IGWA-SWC Settlement Agreement
Future Benchmarks
-6.13 ft





Near Blackfoot to Minidoka Reach Gains – 1928 to 2018

Conclusions

Funding from the Legislature for the IWRB's Managed Recharge Program, combined with the actions agreed to in the various SWC settlements, have led to significant progress toward implementation of the management goals outlined in the ESPA CAMP. The ESPA CAMP establishes a long-term goal of 600,000 AF of average annual change to the aquifer water budget. As of 2019, major management actions listed below, have resulted in over 550,000 AF annual water budget change:

- Managed Aquifer Recharge – The IWRB with state funding and Legislative direction (SCR 136, 2016) is implementing a Recharge Program with a target of 250,000 AF on an average annual basis.
- Demand Reduction – Groundwater users are implementing 240,000 AF reduction under the IGWA-SWC Settlement; additional reduction of 6,000 AF being implemented under the SWID-SWC Settlement
- Ground Water-to-Surface Water (Soft) Conversions – Groundwater users are installing projects where feasible; some conversion projects are counted toward 240,000 AF reduction in the IGWA-SWC Settlement; others counted toward the separate 79,000 AF in SWID-SWC Settlement and 8,000 AF in A&B ID-SWC Settlement
- Cloud Seeding – The IWRB, Idaho Power Company, and various water users groups are implementing cloud seeding as a cooperative program.

Aquifer storage rose significantly from 2016 - 2018 due to a number of factors. A portion of the observed rise was due to the IWRB's Managed Recharge Program and the reductions associated with the various SWC Settlements. However, a larger portion of the increase was likely due to the exceptional high precipitation the region received from 2016 - 2018.

The actions outlined in the ESPA CAMP appear to be working. Even so, the IWRB invites ongoing public feedback from a wide array of stakeholders on ESPA sustainability initiatives in its regular IWRB meetings and committee meetings. Over the last six months, as the IWRB has worked to compile this 10-year progress report, it has invited public feedback and comment from all stakeholder groups in the ESPA region. The overarching message is that the ESPA CAMP goals and objectives should continue to be the guiding light for the IWRB. At this point, the IWRB is recommending no changes to the ESPA CAMP long-term aquifer water budget adjustments and the mix of management actions. Moving forward the IWRB will continue to obtain input from stakeholders as it considers if any targets or management actions need to be changed in the ESPA CAMP.

The Snake River upstream from Milner Dam is the water source for nearly all of the IWRB's recharge activities, and tends to run in cycles with several wet years in a row (for example 2009-2012 and 2017-2019), followed by several dry years in a row (for example 2013-2016). For this reason, moving forward, a minimum of a 30-year rolling average is needed. A 30-year rolling average will allow for accounting of both wet years when the average annual target of 250,000 acre-feet will be exceeded, and dry years when the average annual target of 250,000 acre-feet will not be met.

The IWRB has stated it will not seek to use storage water for recharge in order to avoid putting additional pressure on the Upper Snake Reservoir System. However, several of the SWC Settlements outlined above require that parties provide storage water for aquifer management. In some years, the parties to these SWC Settlements have chosen to request that the IWRB divert the storage water using IWRB Managed Recharge Program infrastructure. However, the parties could choose other means of using that storage water for aquifer management. For this reason, any storage water provided by private parties for recharge pursuant to the various SWC Settlements should not be counted toward the IWRB's 250,000 acre-foot average annual goal.

"Private Managed Recharge" is being done with a variety of water sources, including: 1) Storage water leased through Upper Snake Rental Pool; 2) Natural flow irrigation rights leased through Water Supply Bank; 3) Natural flow recharge rights held by irrigation districts and canal companies; and/or 4) Temporary water right permits during large flood flow events. Idaho Code § 42-1737, provides the IWRB must approve all projects diverting natural flow for recharge in excess of 10,000 AF on an average annual basis. As "private managed recharge" makes use of various water supply sources, it is unclear whether any "private managed recharge" efforts proposed or currently underway meet the threshold outlined in § 42-

1737. To date, no proposals pursuant to § 42-1737 have been presented before the IWRB. Since "private managed recharge" is done pursuant to the provisions of the IGWA-SWC Settlement, it should be considered separate from the IWRB's 250,000 acre-foot average annual recharge goal under the ESPA CAMP.

Recommendations

- Using historical hydrologic data, the IWRB estimates the current long-term recharge capacity is 202,000 acre-feet annually. The IWRB does not yet have the capacity to average 250,000 acre-feet. More capacity should be built so it is possible to recharge more water during the wet years so as to offset the minimal recharge that will occur in dry years. The IWRB recommends continued funding to support development of additional recharge opportunities as well as a long-term commitment to funding the operations of the IWRB's Managed Recharge Program.
- The IWRB is exploring the development of a Recharge Advisory Committee that could advise the IWRB on its Recharge Program and provide a forum for open and transparent discussion that integrates all stakeholder perspectives.
- The IWRB recommends submission of another Progress Report on ESPA CAMP implementation to the Legislature in 10 years. The IWRB will also report to the public annually via its regularly scheduled open meetings on progress towards ESPA CAMP hydrologic targets.
- The IWRB will determine whether there is a need to amend the ESPA CAMP to include an updated implementation section.