

Henry's Fork Watershed Council

Tuesday, March 13, 2018

Participants began registering at 8 a.m. at the SpringHill Suites in Rexburg.

Aaron Dalling, of the Fremont-Madison Irrigation District called the meeting to order. Aaron thanked everyone for traveling to Rexburg for the meeting. Participants introduced themselves. Aaron explained that the Watershed Council began as an effort to build trust and to find a way to collaborate, solve problems, and open lines of communication among various stakeholders in the watershed. Aaron called for two minutes of silence, noting that it has been a tradition of the council at every meeting since its inception. Aaron then opened up the meeting to any announcements or comments.

Community Building

There were no announcements or comments.

Water supply update

Corey Loveland, U.S. Bureau of Reclamation

Overall, water supply in the upper Snake River basin is close to average. March-July runoff is forecast to be 101% of average at Island Park Dam, 116% of average at Jackson Lake, and 110% at Heise. Current reservoir storage in the upper Snake River system is 3.5 million ac-ft, about 87% of capacity, where it has been most of the winter because of good carryover from last year. Island Park Reservoir has been at 88% of capacity most of the winter, at an outflow of around 500 cfs. Island Park will fill in early May, close to its long-term average fill date. Outflow from Palisades Reservoir was recently increased to 6,800 cfs to fill American Falls Reservoir prior to the beginning of irrigation season. Until runoff has passed, around 100,000 ac-ft of space will be left in American Falls for flood control, if needed. Little flood control will be needed at Palisades if the spring is dry, but a wet spring would trigger need for a larger flood-control operation.

Although soil moisture is good at high elevations around the basin due to fall rains and average snowpack, soil moisture in the agricultural areas is low because snow cover has been minimal this winter. Thus, irrigation demand is expected to begin in April, as soon as administrative irrigation season starts. If demand is high, irrigation diversion will take most of the streamflow available from flood-control operations and during peak runoff. Nonetheless, spill at Milner is expected to reach 12,000 cfs for some period of time this spring, the duration of which will depend on how wet or dry the weather is during April and May.

Importance of managed recharge at Egin Lakes site

Rob Van Kirk, Henry's Fork Foundation

The need for managed aquifer recharge (MAR) on the Eastern Snake Plain Aquifer (ESPA) has grown out of a need to reverse the long-term decline in aquifer storage and corresponding discharge from the aquifer back to the river system. Prior to the 1950s, ESPA storage increased due to recharge incidental to surface-water irrigation, including canal seepage and seepage from irrigation application in excess of crop needs. Higher aquifer levels led to higher aquifer discharge, which occurs primarily in the American Falls area and at Thousand Springs near Hagerman. Since the mid-1950s, aquifer levels and discharge have decreased due to a combination of increased irrigation efficiency (pipes and sprinklers versus ditches and flood-irrigation), increased groundwater pumping, and, locally, replacement of former canal-irrigated land by housing and other suburban development, all of which have increased consumptive use of water. Discharge from Thousand Springs at the lower end of the ESPA has generally been sufficient to meet minimum streamflow requirements at Idaho Power's Swan Falls facility, requirements negotiated between Idaho Power and the State of Idaho in 1984. Thousand Springs discharge became too low to meet minimum flow for the first time in 2015, requiring release of upper Snake storage water to meet the requirement. Meanwhile, rules for conjunctive management of ground and surface water developed in the mid-1990s opened a legal mechanism for senior surface water users to call for curtailment of junior groundwater users. After a decade in the legal system, one of these calls was resolved throughout a negotiated settlement in 2015. This settlement requires groundwater users to cut pumping by 240,000 ac-ft/year or mitigate pumping on a one-to-one basis via delivery of rented storage water or MAR.

In 2008, the Idaho Water Resource Board (IWRB) completed the ESPA Comprehensive Management Plan to address the issues associated with decreased aquifer storage and discharge on the ESPA. The long-term goal for management of the ESPA is a change in the water budget of 600,000 ac-ft per year through some combination of reduced pumping and increased recharge. The objective of the IWRB's recharge program is 250,000 ac-ft/year.

There are three type of MAR currently conducted in the upper Snake River basin. The first is traditional winter diversion for the beneficial use of "subirrigation." This occurs only in the Henry's Fork watershed, using water diverted from the Teton River, Fall River, and the Henry's Fork. None of this recharge counts toward the State's objective nor toward mitigation under the settlement. The second is MAR conducted through the IWRB program, which uses natural flow rights held by the IWRB, with priority dates of 1980 and 1998. The third is private MAR, which uses junior natural flow rights held by irrigation entities, storage water rented from the rental pool, and irrigation rights to which MAR has been designated as a beneficial use when places-of-use for the irrigation rights are not irrigated. Both IWRB and private managed recharge are conducted at the Egin Lakes site.

Egin Lakes is an important location for MAR basin-wide because of its hydrogeologic properties. Spatially, over 98% of the response of aquifer discharge (increases in streamflow) occur upstream of Minidoka Dam, so that water recharge at Egin Lakes can be stored in American Falls or Lake Walcott. These increases in streamflow also contribute to the natural-flow rights of Twin Falls Canal Company and other irrigation entities downstream of Minidoka. This allows water recharge at Egin Lakes to be used twice within the upper Snake River basin—once when diverted for recharge and a second time when diverted downstream of Minidoka. Temporally, the 50% retention time in the aquifer is 6.5 years, meaning that half of the volume

of water recharged at Egin Lakes is still being realized as increased aquifer storage 6.5 years after it was recharged. The 10% retention time is 25 years. These response times provide an optimal balance between increasing aquifer storage and increasing discharge back to the river, over time scales relevant for management and particularly for meeting benchmarks set by the surface user-groundwater user settlement.

Expanding recharge capacity at Egin Lakes is important to meeting basin-wide MAR objectives. Natural-flow MAR rights are junior to irrigation rights during irrigation season and to storage rights the rest of the year. Essentially, the only natural flow available for MAR is natural flow that would otherwise spill at Milner Dam. Upstream of Minidoka, the MAR rights are also subordinate to a 2,700 cfs hydropower right held by U.S. Bureau of Reclamation at Minidoka Dam. Because of all of these constraints, water for MAR at Egin Lake is available in only about half of all water years. However, in these years, large amounts are available—as much as 1,000 cfs during winter and 3,000 cfs in summer. Maximum recharge basin-wide occurs when as much as possible is recharged in the Henry's Fork watershed. The IWRB has already invested in construction of a recharge canal to deliver water to the Egin Lakes site, but the surface area of the recharge ponds needed to accommodate increased delivery is larger than currently allowed under the easement with the U.S. Bureau of Land Management. Expansion of the Egin Lakes site to meet increased need for managed recharge will require flooding of land currently in the Sand Mountain Wilderness Study Area (WSA).

Processes for release of BLM Wilderness Study Areas

Rob Mason, The Wilderness Society

The Federal Land Policy Management Act (FLPMA) of 1976 required the Bureau of Land Management (BLM) to inventory wilderness attributes of its lands and designate those with suitable characteristics as Wilderness Study Areas (WSAs). Because passage of FLPMA was itself a Congressional action, designation of WSAs is considered a Congressional action. Thus, Congressional action is required to change the designation of a WSA, either to establish it as Wilderness under the Wilderness Act of 1964 or to release it from further consideration for Wilderness designation. Congressional action removed WSAs in two recent cases in Idaho, the Owyhee Initiative in southwest Idaho and the Boulder-White Clouds in central Idaho. The Owyhee example involved a decade of collaboration among stakeholders that ultimately produced a Congressional Act that released some WSA land but designated other WSAs as Wilderness. The Boulder-White Clouds negotiations lasted even longer than those in the Owyhee area and resulted in release of some BLM WSAs as well as some U.S. Forest Service roadless areas but designation of both BLM and Forest Service lands as Wilderness. In both cases, the Congressional Acts included land exchanges and other provisions for management of natural resources on federal lands.

These two cases are typical of actions that release WSAs. They are complicated, were developed through local collaboration, had broad support from local stakeholders, and designated some areas as Wilderness while releasing others. This balance of release and designation is politically required for approval by Congress. The Sand Mountain WSA at Egin Lakes is somewhat unique in that motorized vehicle use is permitted on the sand dunes, because wind regularly removes tire tracks, thereby retaining the wilderness character of the landscape. Sand Mountain is important

as it is currently managed because of traditional motorized use, the Egin Lakes recharge site, and winter closure to protect wintering wildlife. From the standpoint of The Wilderness Society, these important uses should be retained at Sand Mountain, but there are 20 other WSAs in Idaho that have higher wilderness value and are thus higher priority for designation as Wilderness. Because of the precedent for release of WSAs to be accompanied by designation of other land as Wilderness, negotiating release of Sand Mountain will be challenging because there are no other candidates for Wilderness designation nearby. Thus, finding some land to designate as Wilderness would require negotiations with other counties, stakeholder groups, agencies, or states. The closest areas to Sand Mountain that could be designated as Wilderness are lands administered by the U.S. Forest Service. Targhee Peak and Winegar Hole are two such areas in the Henry's Fork watershed, although Winegar Hole lies in both Idaho and Wyoming, which would require support of two Congressional delegations.

In summary, there are precedents in Idaho for releasing WSAs, but developing legislation to release Sand Mountain WSA will require commitment to a long collaborative process, involvement of stakeholders and agencies beyond those immediately relevant to Sand Mountain itself, and identification of other resource-management considerations that could be included in the legislation.

Henry's Fork Groundwater District

Aaron Dalling, Fremont-Madison Irrigation District

The Henry's Fork Groundwater District (HFGWD) was officially formed as the result of a vote among groundwater users in the proposed district in the November 2017 election. Votes were recorded on the basis of pumping rate allowed under the relevant groundwater rights, and formation of the district passed by a vote of 392 cfs to 8 cfs. The HFGWD includes all groundwater users on the Eastern Snake Plain Aquifer (ESPA) in the Henry's Fork watershed that are not already in one of the adjoining groundwater districts, including Jefferson-Clark and Madison. The water users that pump water from the Teton River in Teton Canyon are also included in the HFGWD because their surface-water use is offset with groundwater pumping from exchange wells located on the ESPA farther downstream. The HFGWD is composed of five districts, each with one representative on the Board of Directors. The City of St. Anthony is a member of the HFGWD; the City of Rexburg could join but is still considering all of its options.

The primary purpose of the HFGWD is to ensure compliance with the terms required by the 2015 settlement between the Surface Water Coalition and the Idaho Ground Water Appropriators (SWC-IGWA settlement), including mitigation to offset continued pumping. The requirements of the SWC-IGWA settlement are reduction of 240,000 ac-ft of consumptive use from groundwater pumping on the ESPA, delivery of 50,000 ac-ft of storage each year to the SWC, reduction of administrative irrigation season for groundwater use to April 1 – October 31 to align it with that of surface-water users, mandatory measurement of all groundwater use, benchmarks for ESPA aquifer recovery based on water levels measured in 19 sentinel wells across the ESPA, and support of the State's managed recharge effort. The mitigation obligation of the Madison and HFGW districts is 1,500 ac-ft of storage delivery and 3,000 ac-ft of managed aquifer recharge each year.

Community Building and Wrap-Up

Brandon Hoffner, HFF, asked for one minute of silence to wrap-up the meeting before any closing comments and announcements.

Keith Esplin shared that the Eastern Idaho Water Rights Coalition could be taking a resolution to the state to ask NRCS to stop funding projects to convert to sprinklers as it relates to recharge. Folks can reach out if they want to join that effort.

Kathy Rinaldi shared that GYC is hosting a symposium looking at recreation in the Greater Yellowstone Ecosystem in Bozeman on April 23-24.

Rob Van Kirk thanked folks for contributing to his presentation relating to other ways to do recharge. He expressed that we need to do something to take advantage of extra water when we have it.

Brandon Hoffner commended Keith, saying he provided a lot of information and has been very willing to communicate and talk about different perspectives. Brandon thanked him for being here and being willing to talk about ways to best use the water resources in the state. Brandon also said thank you to all who traveled to be here and announced that the April agenda is forthcoming. He asked the group to let us know if there is a topic they would like to see on the agenda.