Gibson, Deborah

From: Spackman, Gary
Sent: Friday, March 27, 2015 10:27 AM
To: Gibson, Deborah
Subject: FW: Basin 63 Refill FAQ
Attachments: Basin63_RefillFAQ_v5.pdf

From: Weaver, Mathew
Sent: Tuesday, February 17, 2015 8:21 PM
To: Spackman, Gary; Stephen.Goodson@gov.idaho.gov
Subject: Basin 63 Refill FAQ

Gentleman,

I think I promised this document to both of you in the last week. Here you go. A primer on the refill issue in Basin 63.

Cheers,

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Basin 63 (Boise River) Fill/Refill Issue - FAQs

What's the Problem?

1. In a nutshell, what's the fill/refill problem? **Historically, refill of storage space evacuated in federal on-stream reservoirs as a result of flood control operations has occurred. Refill has occurred during the spring freshet when surplus water has been commonly available in the system for storage after all water rights, including water rights junior to the storage water rights, were satisfied. There is a concern that changing future conditions—including new in-basin development, federal ESA flow release requirements, and climate change—may diminish the volume of surplus water historically available to refill reservoir space, resulting in a decline of the overall water supply to storage water users.**

Background

2. When were the federal reservoirs in the Boise Basin completed?

Basin 63 Reservoirs - Summary		
Reservoir	Earliest WR Priority Date	Construction Completion
Arrowrock Reservoir	1911	1915
Anderson Ranch Reservoir	1940	1950
Lucky Peak Reservoir	1955	1955

3. What is the purpose of the Boise River Basin reservoir system? **The Boise River storage system was constructed over the course of 40 years and has been operated for almost 100 years. The system has come to have multiple, sometimes conflicting purposes over its history, including storing water for beneficial use, providing flood protection, meeting recreational needs, and providing year round flows in the Boise River downstream of Lucky Peak.**

4. Who owns the storage water rights within the Boise Basin's federal reservoirs? **The United States Bureau of Reclamation (USBR) owns nominal legal title to the storage water rights.**

5. What are the beneficial uses associated with the Boise reservoir storage water rights? **There are multiple beneficial uses recognized by Idaho State water law associated with the combined reservoir system including irrigation (886,511), stream flow maintenance (152,300 AF), municipal (5,200 AF), and industrial (5,200 AF). Hydropower is also a recognized beneficial use, but water can only be released for hydropower when it accompanies the release of water for another beneficial use. This is termed "incidental" beneficial use.**

6. What about flood control? Isn't that a beneficial use? **Flood control operations are of course generally beneficial to the public's health and safety, and protection against property damage. Flood control operations are conducted jointly by the USBR and the Army Corps of Engineers under Federal flood protection authorities. However, the release and storage of water for flood control operations are**

not beneficial uses recognized in Idaho State water law and there are no water rights associated with flood control operations in the Boise River Basin.

7. What is a space holder contract? **A space holder contract is a contract between the owner of the reservoir (USBR) and the party putting the stored water to beneficial use (i.e. irrigators, municipal providers, etc.). These contracts are not water rights but they define the space allocations of water stored under USBR water rights. Individual space holders such as irrigation districts, canal companies, and municipal providers do not own storage water rights.**

8. When was the current water right accounting first implemented? **Current or modern era computerized water right accounting practices were first initiated in the Upper Snake River in 1977. Modern practices were adopted from the Snake and implemented in the Boise River Basin in 1986.**

9. How does the current water right accounting accrue water to storage water rights? **Under current water right accounting practices, any natural flowing water (i.e. water not released from an upstream reservoir) entering a reservoir, in priority, is accrued towards the satisfaction of the reservoir storage water right. Natural flow water entering a reservoir that is either immediately or subsequently released, even when not released for beneficial use, still counts towards the satisfaction of the water right. This practice is consistent with water right accounting practices for on-stream reservoirs in many western states and is termed the "store it or lose" principle.**

10. Has refill historically occurred under a water right? **Under water right accounting practices, the refill of space in a reservoir previously evacuated for flood control has occurred, but it has not occurred under a water right. A storage water right is only entitled to one fill.**

11. How has refill historically been accomplished? **During the spring freshet surplus natural flow water exists in the system (i.e. more water is in the river than is necessary to satisfy all water right needs), and the surplus water is captured and stored in empty reservoir space. The stored surplus water is subsequently allocated to storage water rights at the conclusion of the runoff season.**

12. Are there any existing mechanisms in place that protect space holders from reservoirs that don't fill as a result of flood control operations? **Yes, space holder contracts and current Endangered Species Act (ESA) flow augmentation release practices provide a first line of defense for space holders.**

13. What happens in the Boise River basin if the reservoir system fails to fill due to flood control releases? **If the reservoir system fails to fill due to flood control by 60,000 AF or less, all storage entitlements in Lucky Peak Reservoir receive 100% of their allocation except for the USBR's streamflow maintenance entitlement. Only when the volume of water that failed to fill is greater than 60,000 AF are space holders in Lucky Peak[1] impacted.**

[1] This "shortfall" is subtracted from the Lucky Peak Reservoir entitlements because Lucky Peak Reservoir has the latest water right priority of the three Boise system reservoirs, and is the primary flood control facility.

14. How often has the Bureau of Reclamation missed filling the reservoir system by more than 60,000 acre-feet in a year when flood control releases were made? **Other than 1989, there has never been a year that space holder's storage space was adversely affected by flood control releases, where the inability to "top off" the reservoir resulted in less than a full allocation of storage water to space holders other than the USBR.**

15. What is the target volume of water associated with ESA flow augmentation releases (i.e. storage water releases for salmon recovery) in the Boise Basin? **When available, 40,932 acre-feet of storage water is released from the Boise basin reservoir system for flow augmentation.**

16. How is flow augmentation water released in the Boise Basin? **In the Boise, the USBR releases flow augmentation water by the time the spring freshet concludes. It does so by targeting full reservoir volume as the actual physical volume less flow augmentation storage releases. When water is released for flood control operations after April 10, and the space vacated by the release does not subsequently refill, the water released can be counted towards flow augmentation requirements.**

Is there a Solution?

17. Is anyone working on a solution to this fill/refill issue? **Yes, the Department, the USBR, and the water users have been engaged in settlement discussion with the purpose of finding a solution to the fill/refill issue that is acceptable to all parties. Currently, a settlement solution has been proposed by the Department, whereby a pair of refill water rights would be decreed in the Snake River Basin Adjudication for each of the three on-stream federal reservoirs. This solution would create real property rights, for the first time, associated with the historical practice of refill, thereby preserving the existing status quo and guarding against future diminishment of the refill practice. The pair of water rights would include a fully subordinated Refill 1 water right, which would include as an element a very large storage volume that will allow for water to be stored in all but the wettest of water years. The Refill 2 water right having an effective priority date of 2014 will allow for prioritized refill of the last 154,000-264,000 acre-feet (i.e. reservoir "top off"), depending on the reservoir, in normal to very wet years. In dry years, when there are no flood control operations, the reservoirs will fill under their base water rights.**

18. What are the priority dates and storage volumes for the proposed refill water rights?

Basin 63 - Refill WRs Summary				
Reservoir	Refill 1 Vol. (AF)	Refill 1 Priority Date[2]	Refill 2 Vol. (AF)	Refill 2 Priority Date
Arrowrock	3.286 MAF	1965/Subordinated	264,000	1984/2014
Anderson Ranch	1.316 MAF	1965/Subordinated	247,000	1984/2014
Lucky Peak	3.693 MAF	1965/Subordinated	154,150	1983/2014

[2] Priority dates for Refill 1 and refill 2 water rights will have a priority date listed on the water right that is based on hydrologic analysis of years of maximum event and an effective priority date that is the result of the conditions of the settlement.