Flaming Gorge Technical Working Group
April 5, 2013, 9:00am
Conference Call Record

Attending:
Fish and Wildlife Service: Kevin McAbee
UCRIP: Tom Chart, Jana Mohrman, Kevin Bestgen, Tildon Jones
UDWR: Matt Breen
Reclamation: Heather Hermansen, Dave Speas, Peter Crookston, Ed Vidmar
Western: Jerry Wilhite
Argonne National Labs: Kirk LaGory

Agenda:
- Forecasts and hydrology in the Green and Yampa River Basins
- Proposed Red Fleet operations update and discussion (UDWR)
- Backwater survey results (Argonne/Western)
- Proposed spring flow operations discussion (FGTWG)

Overview:
The primary purpose of the call was to review floodplain management plans and finalize proposed spring operations to implement the Recovery Program's research request (LTSP) and managing floodplains for endangered fish during the spring and base flow period under current forecast conditions. Heather Hermansen led the meeting.

Hydrology Discussion:
Heather Hermansen reviewed current forecast and snowpack conditions. spring and summer/fall basin hydrology and Flaming Gorge reservoir operations information. The April forecast for unregulated inflow to Flaming Gorge during the April – July season is 490kaf (~87% exceedance or 50% of 30-year average) and continues to trend down. This forecast corresponds to the lower end of Moderately Dry hydrologic classification. The Yampa River at Maybell and Little Snake at Lily forecast for April-July season is 635 kaf (~91% exceedance or 50% of 30-year average), fell into the dry hydrologic classification. Upper Green cumulative snowpack is less than last year, although the current total snowpack is the same. March temperatures were below average and the snowmelt in the Yampa River has been limited to low elevation snow with greater mid- and high-elevation snowpack this year than last. Forecasts continue to decrease and Reclamation recommends operating in the dry hydrologic classification for the spring season. Heather calculates seven days at powerplant capacity with a base flow of 820 cfs through the winter and into next spring. Reclamation proposes similar operations to last year with the potential to bypass up to 8,600 cfs for approximately three days. Similarly, real time information on observed Yampa River flows and larval presence would guide operational releases.

Stewart Lake Discussion:

Matt Breen discussed the Stewart Lake selenium remediation management plan. UDWR proposes to entrain as much larvae as possible with a spring peak and then fill the remainder with Red Fleet Reservoir water. Red Fleet water will enter the system at 5 cfs and it is estimated to take 3 weeks to fill Stewart Lake. Water will be held until August

15 and then drained for selenium remediation. Stewart Lake has a lower elevation outlet gate. Information related to the inlet passage connecting at lower elevations was incorrect. Stewart Lake has an excellent system for draining with the lower elevation outlet gate. UDWR has determined it is not valuable with lower flows to use the inlet gate in dry years.

Backwater Survey Discussion:

Kirk LaGory discussed the survey results from 2012 taken at the end of June as applicable to this year. Any amount of spring peak will alter the sand bars, which means that the backwater survey may not be applicable to this year's results. Even a minor peak will overtop the bars and there will be some reworking without scouring. A small peak means that you will lose area and change the relationship. Argonne surveyed five different backwaters. BW10 had the largest increase in surface area around 1,600 cfs with a gradual increase to approximately 1,800 cfs. Surface area was maintained until 2,000 cfs when there was a sharp drop. Taking an average of the five backwaters, BW10 dominated the results. The survey results were used to determine the base flows last year in Reach 2, which were 1,500 cfs. The average depth is about 0.4 meters or greater. The depth was maintained and the deep backwaters could withstand hydropower fluctuations. Argonne plans on taking another survey this June.

Proposed Spring Operations:
Reclamation proposes similar operations to last year with the potential to bypass up to 8,600 cfs for approximately three days. Similarly, real time information on observed Yampa River flows and larval presence would guide operational releases.

Floodplain Discussion:

Tildon Jones reported that Old Charlie Wash is not part of the Ouray Wildlife Refuge and the Service leased the land from the Utes. The lease has expired and there's no indication that it will be resigned in time for the spring peak and study plan implementation. The Above Brennan floodplain connects on the upper end at 12,000 cfs. The Service will be looking for sites to connect at lower flows than originally estimated.

Kirk LaGory reported that the Above Brennan floodplain connection was surveyed at 11,000 cfs. Some of the connections occur at 15,000-16,000 cfs and outlets have been scoured and connect at 10,000 cfs. The breaches have been improved and there's better chance for connection at Above Brennan this year. He also reported that Stirrup Floodplain connection decreased to 11,000 cfs. Leota has a better connection at 14,000 cfs rather than 15,000 cfs. Thunder Ranch inlet connections are all higher but the outlet connections are lower.

Kevin Bestgen reported that he would be continuing with his predictive analysis of larvae in the system. He reported that current river temperatures are similar to 2011 when larvae were produced later. He estimated that with the cold water and low flows the larvae will appear later than they did last year. The mean larval appearance is around May 30. Last year larvae appeared in the system early, but current estimates are for later production. Dave Speas asked where he was getting his data on temperatures because the

current forecast is for above-average temperatures. Kevin responded that the temperature data is coming from the USGS gages.

Recommendation:
Reclamation, the Service and Western agreed to the proposed plan for spring operations. The group recommends similar operations to last year while implementing improved management strategies and maintaining wetlands through the summer. Additional discussion on floodplain availability at various flow levels to achieve LTSP targets and a predictive analysis on larval presence is schedule for the next meeting.

Next Steps:
The next meeting was scheduled for Friday, May 3, at 9:00 a.m.