

**ROGUE BASIN PROJECT
DRAFT CONSERVATION RELEASE SEASON OPERATING PLAN
WATER YEAR 2014**

1. General

Operational planning for the conservation release season begins with the January forecast and continues through October. The conservation release season plan identifies flow requirements for the Rogue and Applegate Rivers and storage needs at Lost Creek and Applegate reservoirs. The conservation release plan is developed in May with the Natural Resource Conservation Service (NRCS) May 1 forecast. The plan is submitted for review and comment in mid-May and finalized about the first week in June. **Although the plan is “final”, the release plan is continuously updated as conditions change.**

a. The operating plan described herein is based on the joint NRCS/National Weather Service (NWS) May 2014 forecast for 50 percent probability of exceedance for Lost Creek and Applegate reservoir inflows.

b. Hydrologic Conditions. Hydrologic conditions and forecasts have indicated that 2014 will be a lower than average flow year for the Rogue Basin. The 2014 conservation plan was developed based on the May forecast. The forecast with 50 percent probability of exceedance for Lost Creek inflow for the May through September time period is 365,000 acre-feet, 74 percent of average. The forecast with 50 percent probability of exceedance for Applegate inflow for the May through September time period is 14,200 acre-feet, 19 percent of average. As of May 1 conservation storage at Lost Creek is 177,500 acre-feet (full conservation storage is 180,000 acre-feet), conservation storage at Applegate is 52,800 acre-feet (full conservation storage is 61,800 acre-feet). Snow water equivalent in the basin is about 30 percent of median, and precipitation for the water year was about 70 percent of average,

c. Coordination. The Rogue Basin Projects will be operated for the congressionally authorized purposes of flood damage reduction, fisheries enhancement, irrigation, municipal and industrial water supply, water quality, and lake recreation. The conservation plan is developed and implemented in close coordination with the State of Oregon through the Oregon Water Resources Department (OWRD).

The flow objectives for Lost Creek and Applegate are based on meeting the authorized purposes. Conservation water storage in Lost Creek Reservoir is specifically allocated to the purposes of fisheries enhancement, irrigation, and municipal and industrial water supply. Stored water is released to meet these three purposes during the conservation release season. Conservation storage in Applegate Reservoir is specifically allocated to the purposes of fisheries enhancement and irrigation. The fisheries enhancement objectives associated with the releases from the Rogue Basin projects are listed in Tables 1 and 2.

2. Conservation Plan

a. Assumptions. The planned releases are based on the joint NRCS/NWS May forecast for 50 percent probability of exceedance. This is a Lost Creek inflow volume of 365,000 acre- feet for May through September, 74 percent of average. For Applegate, this is an inflow volume of 14,200 acre-feet, 19 percent of average. The plan assumes that Lost Creek Lake is full on May 12 with 180,000 acre-feet of conservation storage available for releases. Applegate Lake will not fill for the conservation season this year. The plan assumes that there is 55,000 acre-feet of conservation storage in Applegate on May 12, about 7,000 acre-feet less than full conservation pool.

Table 1 and Table 2 summarize the planned releases at Lost Creek and Applegate for the draft 2014 conservation plan. Figures 1 and 2 illustrate the range of elevations and flows that have a 50 percent probability of occurring at Lost Creek Reservoir and Applegate Reservoir, respectively, while following the planned releases.

Table 1. 2014 State Recommendations for Flow Releases from Lost Creek Reservoir

Period	Average Proposed release (cfs)	Fishery Objective	ODFW target at Agness (Max Temp.)	Period	Average Proposed release (cfs)	Fishery Objective
May 1-10	2,300	a,b	66°F	Aug 1-10	1,400	f
11-20	2,100	a,b	66°F/67°F	11-20	1,750	e,f
21-31	2,100	a,b	67°F	21-31	1,750	e,f
June 1-10	2,500	a,b	68°F	Sept 1-5	1,650	e,f
11-20	2,500	a,b	68°F/69°F	6-10	1,300	d,e,f,g
21-30	2,100	a,b	69°F	11-20	900	c,d,g
				21-30	900	
July 1-10	1,550	a,b,f	--	Oct 1-10	900	c,d,g
11-20	1,400	f	--	11-20	900	c,d,g
21-31	1,400	f	--	21-31	900	c,d,g

ODFW Fisheries Management Objectives Affected by River Flow:

- (a) Minimize pre-spawning mortality among adult spring chinook.
- (b) Minimize dewatering of juvenile salmonids.
- (c) Minimize dewatering of spring chinook redds in 2014-15.
- (d) Minimize early emergence by spring chinook fry in spring 2015.
- (e) Minimize pre-spawning mortality among adult fall chinook.
- (f) Increase survival rates of juvenile salmonids in summer.
- (g) Minimize the proportion of fall chinook that spawn above Gold Ray Dam (site).

Table 2. 2014 State Recommendations for Flow Releases from Applegate Reservoir

Period	Average Proposed release (cfs)	Fishery Objective		Period	Average Proposed release (cfs)	Fishery Objective
May 1-10	100	a,d		Sept 1-10	200	a
11-20	150	a,d		11-20	175	a
21-31	200	a,d		21-30	150	a
June 1-10	200	a,d		Oct 1-10	150	b
11-20	200	a,d		11-20	150	b
21-30	250	a		21-30	150	b
July 1-10	250	a		Nov 1-10	125	b
11-20	250	a		11-20	125	b,c
21-31	250	a		21-30	125	b,c
Aug 1-10	250	a				
11-20	250	a				
21-31	250	a				

ODFW Fisheries Management Objectives Affected by River Flow:

- (a) Increase summer rearing area for juvenile coho salmon, juvenile steelhead, and cutthroat trout.
- (b) Increase spawning distribution of fall chinook salmon.
- (c) Minimize dewatering loss of fall chinook eggs and fry in 2014-15.
- (d) Enhance rearing conditions for juvenile fall chinook salmon.

Figure 1. Lost Creek Lake Forecast Operations.

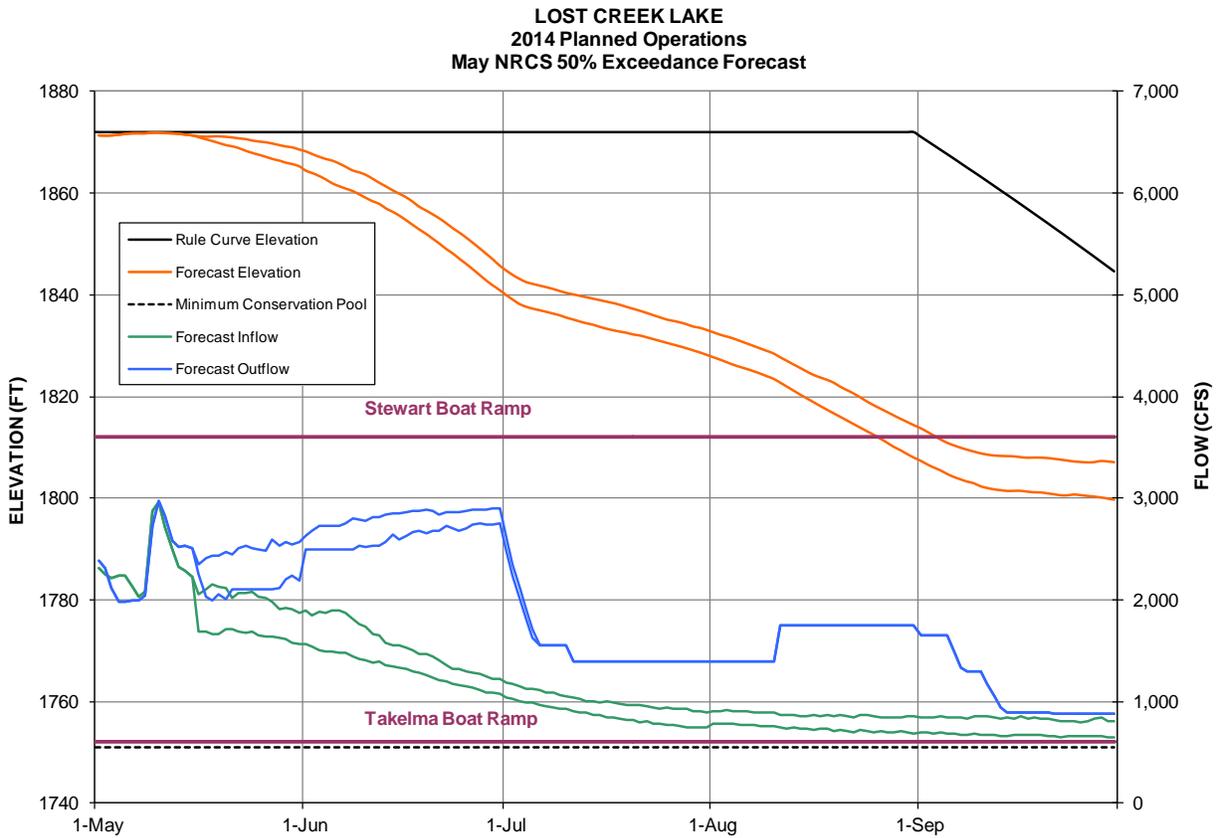
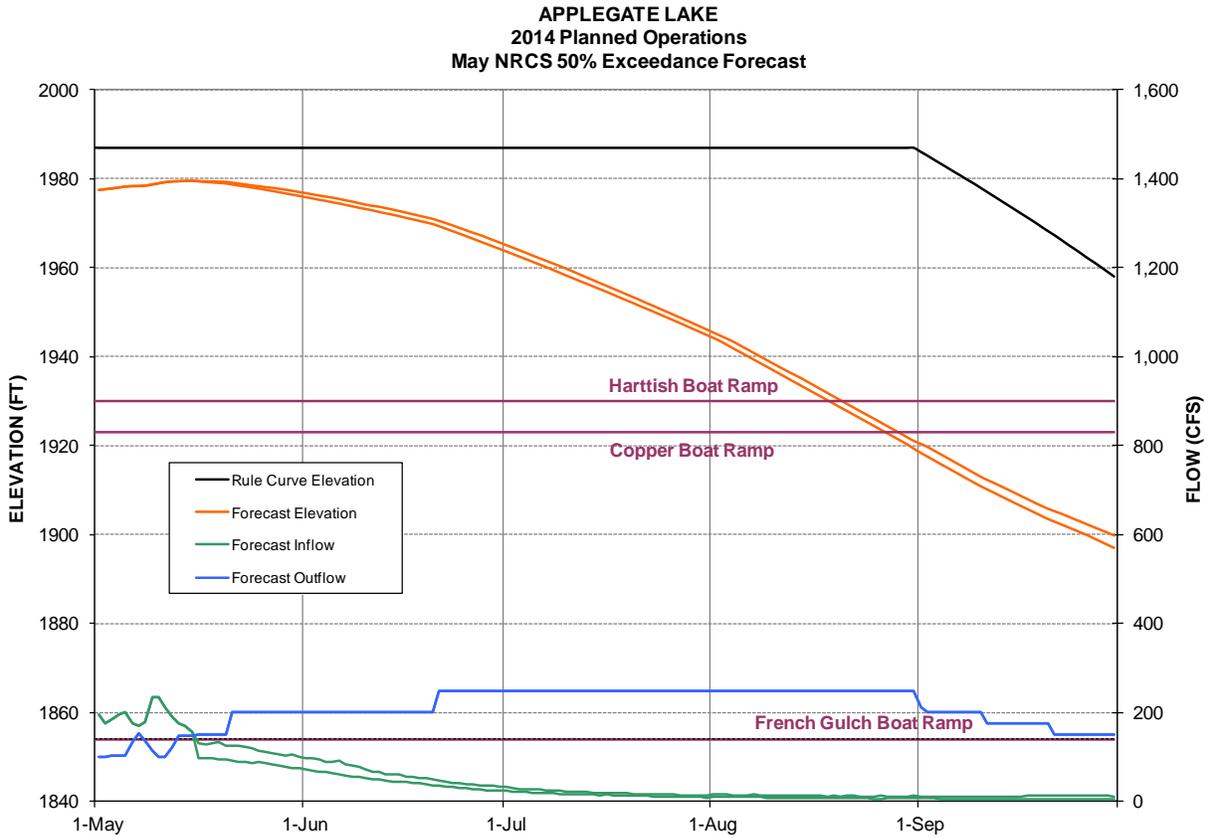


Figure 2. Applegate Lake Forecast Operations.



3. Management Approach

a. The Corps will continue to coordinate with the State of Oregon agencies via telephone conference and webinar, as appropriate. The purpose of these meetings is to continue to assess the hydrologic situation as it develops, and if necessary, make occasional changes to the planned releases. Weekly coordination meetings may be preceded by internal conference calls among Corps employees.

b. The volume of conservation storage remaining at Lost Creek and Applegate will be closely monitored through the conservation season. **If appropriate, planned releases will be adjusted to ensure objectives are met.**