

Table 3.1-1. Timing of Implementation of Minimum Fall/Winter Flow Releases (cfs) from Wickiup Reservoir

Years	No Action	Proposed Action	Alternative 3	Alternative 4
1-5	100	100	200	300
6-10	100	200	300	400-600 ^a
11-15	100	300	400-500 ^a	400-600 ^a
16-20	100	300	400-500 ^a	400-600 ^a
21-30	100	400 ^a	400-500 ^a	

^a Flow levels at full implementation
cfs = cubic feet per second

As shown in Table 3.1-1, Alternative 3 targets a higher minimum flow (500 cubic feet per second [cfs]) in above-normal and wet years, than the proposed action (400 cfs). Although the proposed action does not include the commitment to target the higher flow, typical operations practice is to release more water during above-normal and wet years. Because the RiverWare model required an assumption for how flows in excess of the minimum would be managed, it was determined that the upper bound for the variability assumption would be 500 cfs for the no-action alternative and proposed action. Therefore, modeled flow values presented for the proposed action and Alternative 3 at their respective flow targets (400 cfs and 400-500 cfs) are the same. Alternative 3 refers to the proposed action for discussions of impacts related to model changes in water management and focuses discussion on how impacts would differ from the proposed action in response to the accelerated implementation schedule and additional conservation measures.

In general, the effects of district water conservation projects (i.e., canal piping or lining) completed prior to 2014 on streamflow and irrigation diversions are reflected in the RiverWare model (Table 1 in Appendix 2-B, *No-Action and Cumulative Scenarios*). Water conservation projects for which final NEPA review was completed were assumed under the no-action alternative, as described in Chapter 2, but are not included in the RiverWare model. However, the effects of these projects on streamflows were quantified outside of the RiverWare model. The effects of other planned water conservation projects on reservoir storage and streamflows also are not captured in the modeling results. These future projects would improve water supply efficiency and streamflow conditions but were not included as assumptions in the RiverWare model because of uncertainty about the extent and timing of their potential effects on basin hydrology. The potential effects of water conservation on irrigation district water supply can be quantified at the point of diversion; therefore, the analysis of effects on agricultural resources considered a range of potential water conservation (both district and on-farm). However, because effects on basin hydrology may be attenuated or concentrated during periods of low flow in different reaches of the Upper Deschutes Basin, depending on how water is conserved, hydrologic conditions, and other factors, the effects of these changes on resources were evaluated qualitatively in the cumulative analysis (Chapter 4).