
5. STORAGE AND RELEASE OF WATER

DRAFT - For Discussion Only

Distinguishing Characteristics
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Storage and Release of Water Supporting Information

Water stored and released from reservoirs may provide some indirect fisheries/habitat benefits or adverse impacts. Model runs of system operations provide a coarse measure of expected instream flows and how they change by alternative. The timing of instream flows and the degree of these changes will determine the extent to which fisheries or habitats will benefit or incur adverse impacts. Consideration of changes flows (e.g. Sacramento and San Joaquin River flows) to transport fish to the Delta will be considered. A relative qualitative score will consider the benefits of a full range of flows from dry/critical periods flows to flood flows.

Definition

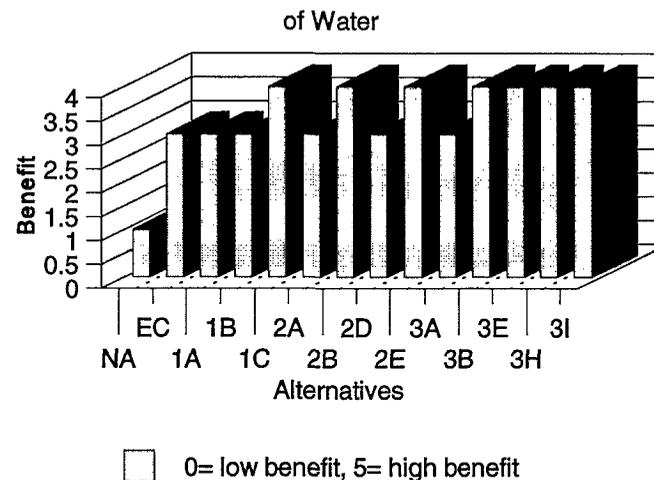
“Storage and Release of Water” provides a measure of the environmental benefit or adverse effects of storing water in a new Program storage facilities and releasing that water at a later time of need. Storing the water will generally result in some degradation of environmental conditions and releasing that water, for whatever use, will generally result in some environmental benefits.

Summary

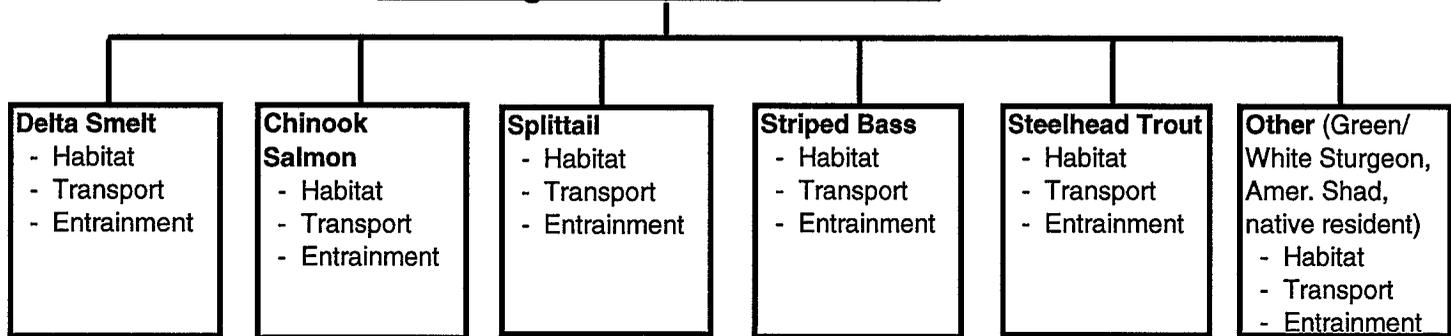
Storage of water in Program facilities will take place during the winter periods of high river flows when adverse effects on the environment are at a minimum. Release of the water for environmental uses will take place when they provide the most benefit. Release of water for other uses will generally take place during lower flow periods when the additional flows can provide some indirect benefits to instream flows. The amount of water stored and released through Program storage facilities is relatively small compared with other ongoing flows so the overall effects of the storage and release is very similar between the alternatives. Alternatives with storage will provide some marginal benefit over those without storage.

The above chart shows preliminary estimates of relative benefits from storage and release of water. The highest benefits in the chart and Table 5.1 are given a score of “5” and the lowest are given a score of “0”.

Storage and Release



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To
Decision
Matrix

Table 5.1 Summary

Alternative	Delta Smelt	Chinook Salmon	Splittail	Striped Bass	Steelhead Trout	Other	Overall Score
Exist. Cond.							1
No-action							3
1A							3
1B							3
1C							4
2A							3
2B							4
2D							3
2E							4
3A							3
3B							4
3E							4
3H							4
3I							4

All alternatives provide similar benefits since ERPP flows are the same between all alternatives and other instream flows only marginally change. Alternatives with storage provide some additional control over the timing of flows and marginally better conditions.

Values are on a scale from 0 to 5; with 5 representing the best performance and 0 representing the worst performance.

Supporting Information for Table 5.1

See above summary.