

Draft Biological Criteria for Evaluating Floodplain Inundation Options

Jason Roberts
California Department of Fish and Game
jdroberts@dfg.ca.gov



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Water Sources

- Proposed option should have the ability to deliver fish from all tributaries that supply fish during a natural spill over the Fremont Weir
- The water should provide source signatures that limit straying of adult migrants from their natal spawning areas



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Water Quality

- The proposed option should minimize water quality concerns (e.g. contaminants, temperature, dissolved oxygen)
 - Source water should be high quality
 - The floodplain area utilized should not have soil contaminant characteristics that are harmful to covered species
 - The proposed option should provide the ability to manage water quality in the floodplain habitat



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Juvenile Capture

- The proposed option should:
 - Be effective in bringing juvenile fish onto the floodplain
 - Passively bring fish onto the floodplain
 - Not require intervention to bring fish onto the floodplain



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Habitat Connectivity

- The proposed option should provide:
 - Floodplain habitat with connectivity to the entire footprint
 - Floodplain habitat connectivity to the “deep fish passage channel” to facilitate upstream adult fish passage



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Drainage Connectivity

- The proposed option should provide a floodplain habitat that adequately drains and maintains flow through conditions to limit stranding



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Habitat Mosaic

- The proposed option should:
 - Provide floodplain habitat that is heterogeneous
 - Produce food web productivity that is similar to a natural spill event
 - Provide adequate refugia
 - Provide adequate duration to benefit all life stages of covered species and export productivity to the Delta



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Predator Exposure

- The proposed option should address and minimize predation impacts
 - Avoid or limit predation to covered species as they emigrate through systems such as canals and structures
 - Avoid creating year-round refugia for predators
 - Avoid or limit the potential for increased predator density when compared to a natural spill over the Fremont Weir
 - Avoid or limit human created "bottlenecks" that may lead to an increased density of covered species and predators
 - Avoid or limit avian predation on covered species



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Questions



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