

Yolo Bypass Fish Technical Team Update

Jason Roberts
Department of Fish and Game
Water Branch
July 22, 2011



Yolo Bypass Fishery Enhancement Plan

July 14th YBFTT Meeting Objectives

- Develop a draft set of criteria for evaluating floodplain inundation options
- Describe a potential option to share with the Planning Team



Draft Criteria for Evaluating Floodplain Inundation Options

- Water Sources
 - Fish Sources
 - Feather River and/or Butte Creek
 - Water Quality
 - Juvenile Capture
 - Passive
 - Active
 - Habitat Mosaic
 - Connectivity
 - Drainage Connectivity
 - Stranding
- Habitat Mosaic
 - Heterogeneous
 - Depth
 - Velocity
 - Temperature
 - Cover
 - Predator Exposure
 - Canal exposure
 - Predator density
 - Pinch points
 - Avian predation



Questions



Yolo Bypass Fishery Enhancement Plan

Potential Option

- Three descriptions of variation in timing, duration, and biology were described that could be used in combination to manage floodplain inundation:
 1. Augment natural spill events to reduce stranding of covered fish species (i.e. provide ramping flows)
 2. Inundate a large footprint of 17,000-20,000 acres to meet OCAP RPA I.6.1
 3. Inundate a smaller footprint of 7,000-14,000 acres based on easement language/compensation and current land uses



Timing of Potential Option

- Natural spill event (i.e. proving ramping flows)
 - Natural spill events would not be extended with augmented flows after May 15
- Large footprint inundation
 - December 1-February 28
- Small footprint inundation
 - November 15-March 31, occasionally extending to May 15



Duration of Potential Option

- Natural spill event
 - Provide adequate duration to meet inundation goals when possible and reduce stranding of covered fish species
- Large footprint inundation
 - Limitation based on land use constraints
 - Minimum 30 days
- Small footprint inundation
 - Minimal limitation on duration based on easement language



Questions



Yolo Bypass Fishery Enhancement Plan

Real Time Considerations

- Real-time considerations could be comparable to current operations developed to manage delta smelt and winter-run salmon (e.g. Delta Decision Matrix)
 - Hydrology/Physical Conditions:
 - River guidance plots from multiple locations
 - Modeling of projected hydrology and hydraulics
 - Time of year
 - Westside tributary flows
 - Temperature
 - Inundated Area
 - Biological Data:
 - Juvenile salmonid emigration monitoring upstream
 - Previous years sampling
 - Yolo Bypass Sampling



Questions



Yolo Bypass Fishery Enhancement Plan