

**Presentation to the  
CALFED Operations Group re.  
Lower American River CVP  
Operations and Salmonid Resources**

**May 23, 2001**

# **PURPOSE OF PRESENTATION**

1. Describe the salmonid resources of the Lower American River
2. Describe management activities in place to protect those resources
3. Identify challenges in protecting the resources
4. Seek assistance in providing maximum protection of salmonid resources

# **SALMONID RESOURCES**

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- The LAR chinook salmon spawner population accounts for nearly 25% of the total Central Valley escapement estimate. It is nearly 2.5 times as great as the total estimated escapement from the San Joaquin system.
- Total chinook escapement to the LAR in fall 2000 was over 110,000 fish. Of these, nearly 100,000 were estimated to have spawned in the River (vs. the hatchery). Largest since completion of Folsom in 1956.

## **SALMONID RESOURCES**

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- This year, the LAR spawner population was the 2<sup>nd</sup> highest count in either the Sacramento or San Joaquin River systems. (The Feather River estimate was 107,000 + spawned in the River).
- It is estimated that 26 million salmon emigrated from the LAR between late January and the present time. (Largest number of emigrants since monitoring was initiated in 1994).

## SALMONID RESOURCES

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- A significant number of steelhead are found in the LAR. Estimating populations is difficult for a number of reasons.
- In the early 1970's, the estimated steelhead run size was about 15,000 fish. Since 1955, an average of about 1,500 steelhead have entered the Nimbus Fish Hatchery each year. This year, 2,900 fish entered the hatchery.
- The peak of steelhead fry emigrating from the LAR has not yet occurred. Expected to occur in late May; LAR is currently being managed for steelhead.

## **MANAGEMENT ACTIVITIES**

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- Flow management, and correspondingly, management of the cold water pool in Folsom Lake during this water short year will strongly influence steelhead success and ultimately success of next year's salmon population.
- The USBR has established an American River Operations Group. Ad hoc group provides recommendations to the USBR and USFWS on Folsom operations based on real time monitoring results, and real time operations. DFG, USFWS, NMFS, SMUD, WAPA, USBR, SARA, Water Forum and others.

# MANAGEMENT CHALLENGES

Three big challenges:

1. Providing for a reasonable flow regime in the LAR;
2. Providing for satisfactory water temperatures in the LAR.
3. Minimize flow fluctuations that result in stranding and/or isolation of fish.

# **MANAGEMENT CHALLENGES**

The American River Ops Group strives to:

- Maintain adequate water supply in Folsom for chinook that are in the River from about September through May, and for steelhead that are in the River year round.
- Maintain adequate flows and temperatures for steelhead that rear during the summer and fall period.
- Maintain adequate flows and temperatures for returning chinook and steelhead that spawn in the fall, winter and spring months.
- Minimize flow fluctuations that result in stranding and isolation of fish from the river.

## **EXAMPLES OF CHALLENGES**

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- Flow Fluctuation in mid-May 2000 to meet Delta demands and standards. Flow was increased from 4,500 to 6,000 cfs, dropped to 2,500 cfs, increased to 4,200 cfs then eventually reduced to 2,300 cfs within a 2-week period (April 27 – May 11). A survey of an isolated site on May 25 indicated that several hundred chinook and several tens of steelhead were isolated from the River.

# EXAMPLES OF CHALLENGES

On April 3, 2001, the Bureau advises that they have to increase releases from Folsom from 1,500 cfs to 2,500 cfs for a week or longer to meet Delta standards. At the then current inflow rates, this action would have triggered several events with significant consequences:

1. Increased flows in the LAR when not needed for fish;
2. Decreased water supplies in Folsom needed for resource use through the summer and fall period;
3. Necessitated the premature removal of a temperature shutter resulting in decreased cold water pool supply and colder temps. in the River at a time when not needed;
4. Resulted in fluctuating flows that would have caused stranding.

# CONCLUSIONS

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- The LAR contains salmonid resources that significantly contribute to Central Valley salmonid populations. Management is difficult given relatively small size of Folsom and limited cold water pool.
- The Bureau has done an admirable job in forming and staffing an Operations Group for the purpose of protecting resources in the River.
- The Bureau's job and Operations Group's job to protect salmonid resources is made more difficult by the fact that the LAR is used as a channel to meet water supply, power and water quality obligations.

# SEEK ASSISTANCE IN PROVIDING PROTECTION FOR LAR SALMONID RESOURCES

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- Make all aware of the impacts on salmonid resources resulting from the conduct of normal business – that is, Folsom operations;
  - Results in informed decision-making for both project operators and agency biologists in the CALFED Operations Group
- Seek assistance and guidance from CALFED Ops representatives for a more formal and sustained process that results in a more fish-friendly way of conducting business in the LAR to the extent possible.