Mortality

- •Warm water temperatures
- ·Redd scour
- •Redd dewatering
- •Sedimentation (eggs)
- •Fry stranding; juvenile isolation
- •RBDD (juveniles)
- Predation
- •Entrainment

•Harvest

- *Habitat elimination& degradation
- •Redd superimpostion
- Predation
- •Entrainment
- ·Warm water temperatures
- Catastrophes
- •Contaminants (agricultural, urban, & industrial)
- Disease

Reduced growth

- Warm water temperatures
- ·Juvenile isolation
- ·Habitat degradation
- •Competition with hatchery fish
- Loss of floodplain and riparian habitat
- ·Contaminants (agricultural, urban,
- · & industrial)
- Habitat elimination& degradation
- Construction-related effects
- Warm water temperatures
- Competition
- Disease

Reduced reproductive success

- •RBDD
- •Warm water temperatures
- Limited spawning habitat availability
- ·Competition with hatchery fish
- Loss of spatial and temporal segregation of spawning habitat among runs
- •Contaminants (agricultural, urban, & industrial)
- •Habitat elimination & degradation
- •Warm water temperatures
- Competition
- ·Disease

Mortality

- · Harvest
- Limited prey availability
- Predation
- .Disease

Reduced growth

- Limited prey availability
- Contaminants
- Competition

OCEAN Spawner Egg Adult Alevin BAY/DELTA

Mortality

- ·Predation
- Entrainment
- ·Disease
- *Loss of ~90 percent of tidal marsh habitat
- ·Contaminants (agricultural, urban, &industrial)
- Habitat degradation

Reduced growth

- •Invasive species/food web changes
- Construction-related effects
- Competition

Mortality

- Direct entrainment at Tracy and Skinner Facilities
- Indirect mortality associated with pumping
- Change from a variable salinity Delta to a freshwater system with a larger predator community

Reduced growth

- Change from a variable salinity Delta to a freshwater system with an altered food web that is potentially limiting prey quantity and quality
- •Loss of nutrients&primary production to pumping



BASELINE