Figure 1: Conceptual Model for Benefits to Native Fishes (Delta Habitats Group 2002)



Tidal Marsh with Dendritic Channels Habitat

Figure 1A: Comments from AMWG & others on DHG Conceptual Model

Other factors to add to the model



Figure 2: PSNERP Conceptual Model - Level 3.0 (ACTION SCENARIO dike breach example)



Figure 3A. Chinook salmon growth: habitats, processes and attributes.



Figure 3b. Chinook salmon survival: habitats, processes and attributes



Figure 4: Levee Breach and Salinity Dynamics Model



Figure 5a: Levee Breach and Salt Trapping

Flood Tide: Flow along Dutch Slough and entering Shallow Tract



Conditions in Dutch Slough:

Currents driven by along slough surface slope

Salinity set by advection: lags by 3 hours (highest at end of flood) Flows into Shallows:

> Timing of flows set by surface slope and frictional resistence Volume of shallows, size of breach Likely to be centered around high/low water

Figure 5b: Levee Breach and Salt Trapping

Scenario I: DS tides slack at high/low water (Progressive Wave), Exchange flows peak at high water (no delay)



Figure 5c: Levee Breach and Salt Trapping

Scenario II: DS flows maximum at high/low water (Standing Wave), Exchange flows peak at high water





Figure 7: Simple Hydo-Geo-Eco Simulation Model

