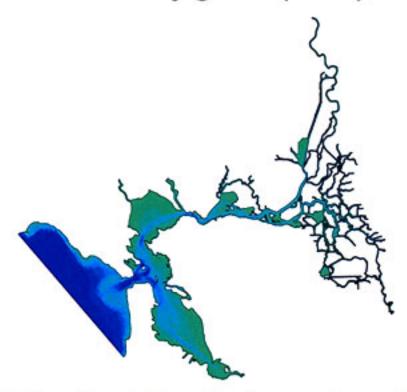
Stockton Deep Water Ship Channel (DWSC) Dissolved Oxygen (DO) Modeling



Purpose of Study: To determine the potential effects of deepening on DO in the Stockton DWSC

Model Selection

- UnTRIM and ECOMSED Coupled Models
 - For UnTRIM:
 - Builds on an existing model that was developed for the Department of Water Resources
 - Selected and supported by DWR, Contra Costa Water District, and EPA
 - For ECOMSED:
 - Builds on CALFED Bay-Delta Program

Simulation Scenarios and Conditions

Scenarios

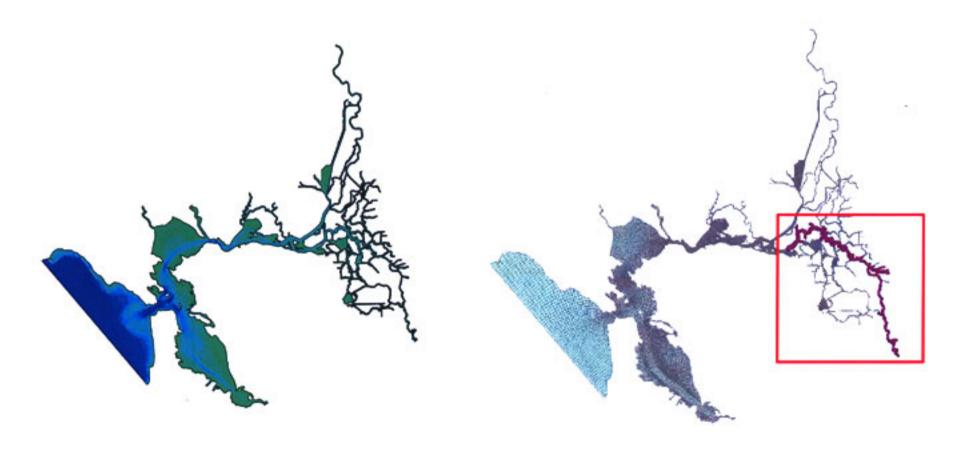
- Baseline / Similar to Existing Conditions
- Sacramento and Stockton DWSCs

Conditions

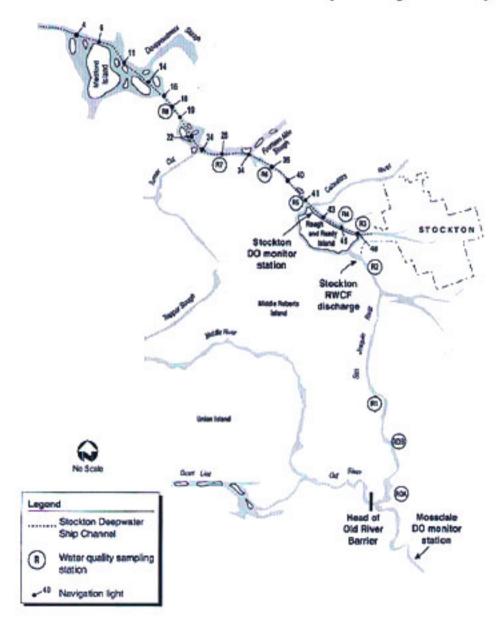
- Year-0 (2007-2008 Flow Conditions)
- Year-50 (Sea Level Rise of 60 cm, 1994-1995
 Flow Conditions + Operational Conditions)

Computation Domain

Hydrodynamic and Salinity Modeling Domain: Dissolved Oxygen Modeling Domain (see magenta line):



Map of reaches with water quality sampling stations



Preliminary Results

- No significant change in DO for with or without dredging of channel for year-0 or year-50 conditions
- Draft report is under technical review.
- Report scheduled for public release September 2010
- USACE would like to return to RWQCB to make a formal presentation at this time.