

Suisun Marsh Workshop

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David Schoellhamer, U.S. Geological Survey

Physical processes: Characteristics of Suisun Marsh that are found in other systems and lessons learned from those systems

Characteristic	Lesson	Examples	References
Two entrances for tides	Tides moving into the system from both entrances meet inside, creating a barotropic convergence zone where residence times are large and constituents are trapped.	Napa-Sonoma marsh	Swanson et al. 2003, Warner et al. 2003
Control at entrance	A hydraulic control at an entrance, like a sill or gate, affects circulation throughout the system.	Sonoma Creek sill, Cape Coral tide gate	Goodwin 1991, Schoellhamer 1988, Swanson et al. 2003, Warner et al. 2003
Dead end channels	Dead end channels can be hydrodynamically isolated, causing long residence times and trapping of constituents.	Petaluma River, Cape Coral	Ganju et al. in press, Goodwin 1991, SFEI 2002, Schoellhamer 1988, Schoellhamer et al. 2003
Large surface area	Manipulating a large surface area alters the tidal prism of the adjacent bay, which can affect the geomorphology and ecology of the bay.	South Bay salt pond restoration	May et al. 2003, Shellenbarger et al. 2004

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