

Glossary

Tidal Wetland Project Planning Process Terms

Consensus decision-making: a process used to find the highest level of agreement where everyone in the group supports, agrees to, or can accept a particular decision

Goals: the purpose towards which a management alternative is directed

Objective: a specific, measurable step to accomplish a goal

Strategic Planning Principles: general considerations that will be used to guide strategic planning. Ideally, the strategic planning principles would all be maximized, but there is recognition that some of these principles are incompatible and that there will inevitably be tradeoffs.

Vision: a short, compelling statement describing a desired future state.

Tidal Wetland Project Scientific Terms

Anoxia: absence of dissolved oxygen in water or soil

Benthic: of or relating to or happening at the bottom of a body of water

Benthos: the collection of organisms living on or in sea or lake bottoms; the bottom of a sea or lake

Brackish: slightly salty; salinity of 0.5-18 parts per thousand (ppt); for example, water that is a mixture of freshwater and saltwater is often considered brackish (ocean water is typically 35 ppt, freshwater is less than 0.5 ppt)

Coliform: Of or relating to the bacilli that commonly inhabit the intestines of humans and other vertebrates, especially the colon bacillus

Colluvium: mixed deposits of rock fragments and soil material that accumulate near the base of steep slopes as a result of landslides or local surface runoff

Cordgrass: any of several grasses of the genus *Spartina*, of coastal regions

Culvert: a drainage conduit that crosses under a road or embankment

DEM (digital elevation model): digital representation of ground surface topography or terrain

Deposition: the act of depositing, especially the laying down of matter by a natural process, such as rock fragments being deposited at the bottom of a river

Diurnal (tides): relating to or occurring in a 24-hour period; daily

Ebb tide: the receding or outgoing tide; the period between high water and the succeeding low water

Ecotone: the boundary or transitional zone between two adjacent ecosystems, such as between land and wetlands

Edaphic: of or relating to soil, especially as it affects living organisms; influenced by the soil rather than by the climate

Effluent: something that flows out or forth, especially a stream flowing out of a body of water or a discharge into a body of water

Embayment: an indentation in a shoreline forming an open bay (larger than a cove but smaller than a gulf)

Estuary: a coastal embayment consisting of deepwater subtidal habitats and adjacent intertidal wetlands that are usually semi-enclosed by land but have open access to ocean waters that enter with the tides and are usually diluted by freshwater

Estuarine habitats: include subtidal areas (channel, tidal creeks) covered by water even at low tide and intertidal areas (mudflat, salt marsh) that are covered with water during high tide and exposed during low tide

Eutrophication: over-enrichment of a water body with nutrients, resulting in excessive growth of organisms and depletion of oxygen concentrations

Flood tide: the incoming or rising tide; the period between low water and the succeeding high water

Fluvial: pertaining to rivers and river action

Geomorphology: the study of the origins and development of landform, including the major forms of the earth's surface

Groundwater: the water that has percolated through the surface soil and has accumulated in the ground, saturating and completely filling all spaces and pores in rock and/or soil

Habitat: the local environment or physical location in which an organism or biological population (plants, animals, microbes, etc.) lives or occurs

Headwaters: the source of a river

Humus: organic material derived from partial decay of plant and animal matter

Hydric soil: a soil that is saturated, flooded or ponded long enough during the growing season to develop conditions where oxygen is absent (anaerobic). Wetland soils are hydric.

Hydrology: the scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere

Hydrophytic vegetation: any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; vegetation typically adapted for life in saturated soil conditions. Wetland plants are hydrophytic.

Hypersaline: water with a salinity that is greater than 40 parts per thousand (ppt). This is in contrast to freshwater which has a salinity of less than 0.5 ppt and ocean water that is typically 35 ppt

Hypoxia: typically waters with dissolved oxygen less than 2 mg/L in water (some regulatory agencies consider waters impaired with dissolved oxygen less than 5 mg/L in water)

Intertidal: of or being the region between the high tide mark and the low tide mark

Marsh: a wetland area with emergent plants that occurs in areas subjected to extended periods of flooding or in shallow water

Mudflat: an intertidal habitat that is usually covered with water during high tide and exposed during low tide, typically found below marsh habitats, and usually devoid of vegetation. There are approximately 1,605 acres of mudflat habitats in Elkhorn Slough.

Nutrient Cycle: pathway of a nutrient or element through its ecosystem, starting from uptake by organisms to release through decomposition

LIDAR (laser imaging detection and ranging): optical remote sensing technology which measures properties of scattered light to find range and/or other information of a distant target

Organic compounds: all living things and products that are produced solely by other living things. Examples are sugar and leather.

Persistent emergent: emergent hydrophytes (plants) that normally remain standing at least until the beginning of the next growing season

Photosynthesis: the chemical process conducted by green plants through which light energy is used to produce glucose from carbon dioxide and water. Oxygen is released as a byproduct. This process enables green plants to produce plant tissues that lead to growth.

Primary Producer: in an ecosystem, those organisms, including green plants and organisms such as algae and diatoms in the water, that use light energy to construct their organic constituents from inorganic compounds

Salinity: salt content of water, typically reported in parts per thousand (ppt). The salinity of ocean water is 32-35 ppt.

Salt marsh: Low salt marsh is usually covered with water during high tide and exposed during low tide and the vegetation is primarily pickleweed (*Sarcocornia pacifica*, formerly *Salicornia virginica*). High salt marsh is flooded irregularly (usually exposed at least 10 continuous days) and the most common vegetation is salt grass (*Distichlis spicata* var. *stolonifera*), alkali heath (*Frankenia salina*), jaumea (*Jaumea carnosa*), *Atriplex* species, and parasitic dodder (*Cuscuta salina*). The macroalgae that looks like lettuce leaves and covers the salt marsh in some areas is called *Ulva* (various species). There are approximately 796 acres of salt marsh (includes tidal creeks) in Elkhorn Slough.

Sediment: unconsolidated inorganic and/or organic mineral and rock particles, usually sand, silt or clay that are transported and deposited by flowing water

Slough: a depression or hollow, usually filled with deep mud or mire; a swamp, marsh, bog, or pond, especially as part of a bayou, inlet, or backwater marked by meandering channels bordered by marsh

Subsidence: to sink to a low or lower level (i.e. land elevation)

Substrate: a surface on which an organism grows or is attached

Subtidal (channel): areas covered with water even at low tide and include channels and tidal creeks

Tidal creeks: creeks that form a network in salt marshes and serve an important function of transferring sediment and nutrients between salt marshes and the main estuarine channel. They also serve as a primary habitat for estuarine fish.

Tidal prism: the volume of water covering an area between a low tide and the subsequent high tide; the tidal prism of Elkhorn Slough was estimated to be 6,400,000 cubic meters in 2005

Tidal/tide range: the difference in the level between successive high and low tides

Tidal scour/erosion: erosion along the bank or bottom of a tidal channel or tidal creek

Tidal wetland: areas along coasts and in estuaries where the ground is covered by high tides but drained at low tide

Tide gate: a water control structure that either allows water to flow freely when the tide sets in one direction, but which closes automatically and prevents the water from flowing in the other direction (i.e. flap gate under Elkhorn Road between Blohm-Porter Marsh and Hudsons Landing) or a water control structure that restricts the total amount of water exchanged through a sliding mechanism that usually reduces the height of the tide level (i.e. slide gates are found under the levee in North Marsh)

Turbidity: a measure of the murkiness or cloudiness from sediment, organic material, or plankton suspended in the water

Water table: the upper surface of groundwater that rises and falls depending on the amount of groundwater

Watershed: the area of land that catches precipitation such as rain and drains into an estuary, river, lake, or other body of water

Wetland: an area, such as marsh, that usually supports hydrophytic vegetation, hydric soils, and is usually saturated or inundated by surface or groundwater sometime during the growing season of each year

Wrack: any marine vegetation cast up on the shore

Glossary sources are from Cowardin 1979, Ferren et al. 1996, Mitsch et al. 2000, Nebel et al. 1998, Smith 1996 and web sources including Biology Online (<http://www.biology-online.org/dictionary.asp>), Dictionary.com (<http://www.dictionary.com>), NOAA Tidal Terminology, and Word Web Online (<http://www.wordwebonline.com>)