Delta Ecosystem Quality

The Delta Ecosystem does not support high quality habitats for diverse and valuable plant and animal species. Many plant and animal species that use the Delta have experienced moderate to severe declines

A. Aquatic Habitats (inadequate)

Examples of affected species include delta smelt, longfin smelt, splittail, Chinook salmon, striped bass, and American shad

- A 1 Shallow Riverine (lacking)
  - A 1 a Riverine Edge (lacking)
  - A 1 b Shallow Shoal (lacking)
  - A 1 c Intertidal Mudflat (lacking)
- A 2 Shaded Riverine Aquatic (lacking)
  - A 2 a Riparian Woodland (lacking)
  - A 2 b Woody Debris (lacking)
- A 3 Tidal Slough (lacking)
  - A 3 a Dead-End Sloughs (lacking)
  - A.3 b Open-Ended Sloughs (lacking)
  - A.3.c. Water hyacinth occupies habitats
  - A.3.d. Energetic Exchange (limited)
- A 4 Null-Zone (insufficient area and depth)
  - A 4 a Saltwater intrusion into Suisun Bay
  - A 4 b Brackish Water (confined to deeper channels)
  - A.4 c. Brackish Water (less frequently in San Pablo Bay)
- A 5 Transport flows (insufficient, altered)
  - A 5 a Young Fish to Suisun Bay (reduced transport)
  - A 5 b Young Fish through Delta (reduced transport)
  - A 5 c Young Fish across Delta (increased transport)
  - A 5 d Structural Blockages (altered flows)
- A 6 Migratory Cues (altered)
  - A 6 a In Migration of Adult Salmon (disrupted)
  - A 6 b Outmigration of Juvenile Salmon (hindered)
  - A 6 c Upstream Migration of Estuarine Fish (hindered)
  - A 6 d Downstream Migration of Estuarine Fish (hindered)
- A 7 Food Chain Productivity (insufficient)
  - A 7 a Food Chain Productivity (contained)
  - A 7 b Supporting Habitats (disconnected)
  - A 7 c Turbidity (excessive)
  - A 7 d Introduced Species (occupy habitat)
  - A 7 e Residence Time (excessive)
  - A 7 f Organic Inputs (reduced)
  - A 7 g Salinity Levels (inappropriate)
  - A 7 h Freshwater Inflow (lacking)
  - A 7 i Shallow water habitat (lacking)
- A 8 Toxicity and Bioaccumulation (excessive)
  - A 8 a Pesticide Residue (excessive)
  - A 8 b Hydrocarbons and Heavy Metals (excessive)

B. Wetland Habitats (inadequate)

Examples of affected species include wintering and breeding waterfowl, sandhill cranes, and neotropical migrants

- B 1 Brackish Marsh (lacking)
  - B 1 a Vegetation Composition (inappropriate)
  - B 1 b Areal Extent (reduced)
  - B 1 c Salinity Levels (inappropriate)
  - B 1 d Supporting Habitats (disconnected)
- B 2 Freshwater Marsh (lacking)
  - B 2 a Salinity Levels (inappropriate)
  - B.2 b Areal Extent (reduced)
  - B.2 c. Juxtaposition (not connected)
  - B 2 d. Freshwater Marsh (lacking)
  - B 2 e. Levee Failure (vulnerable)
- B 3 Riparian Woodland (insufficient)
  - B 3 a Habitat Structure (inappropriate)
  - B.3 b. Juxtaposition (not near foraging areas)
  - B 4 c. Areal Extent (limited)
  - B 4 d. Supporting Habitats (disconnected)
- B 4 Breeding Waterfowl Habitats (reduced)
  - B 4 a Nesting Habitat near Brood Habitat (lacking)
  - B 4 b Brood Habitat near Nesting Habitat (lacking)
- B 5 Wintering Waterfowl Habitats (insufficient)
  - B 5 a Waste Grain (decreasing)
  - B 5 b. Resting Areas (insufficient)
  - B 5 c. Historical foraging areas (reduced)
  - B 5 d. Levee Failure (vulnerable)
- B 6 Wintering Habitat for Cranes (insufficient)
  - B 6 a Foraging Habitats (insufficient)
  - B 6 b Roosting Habitats (insufficient)
- B 7 Connectivity (lacking)

E-011276

E—011276