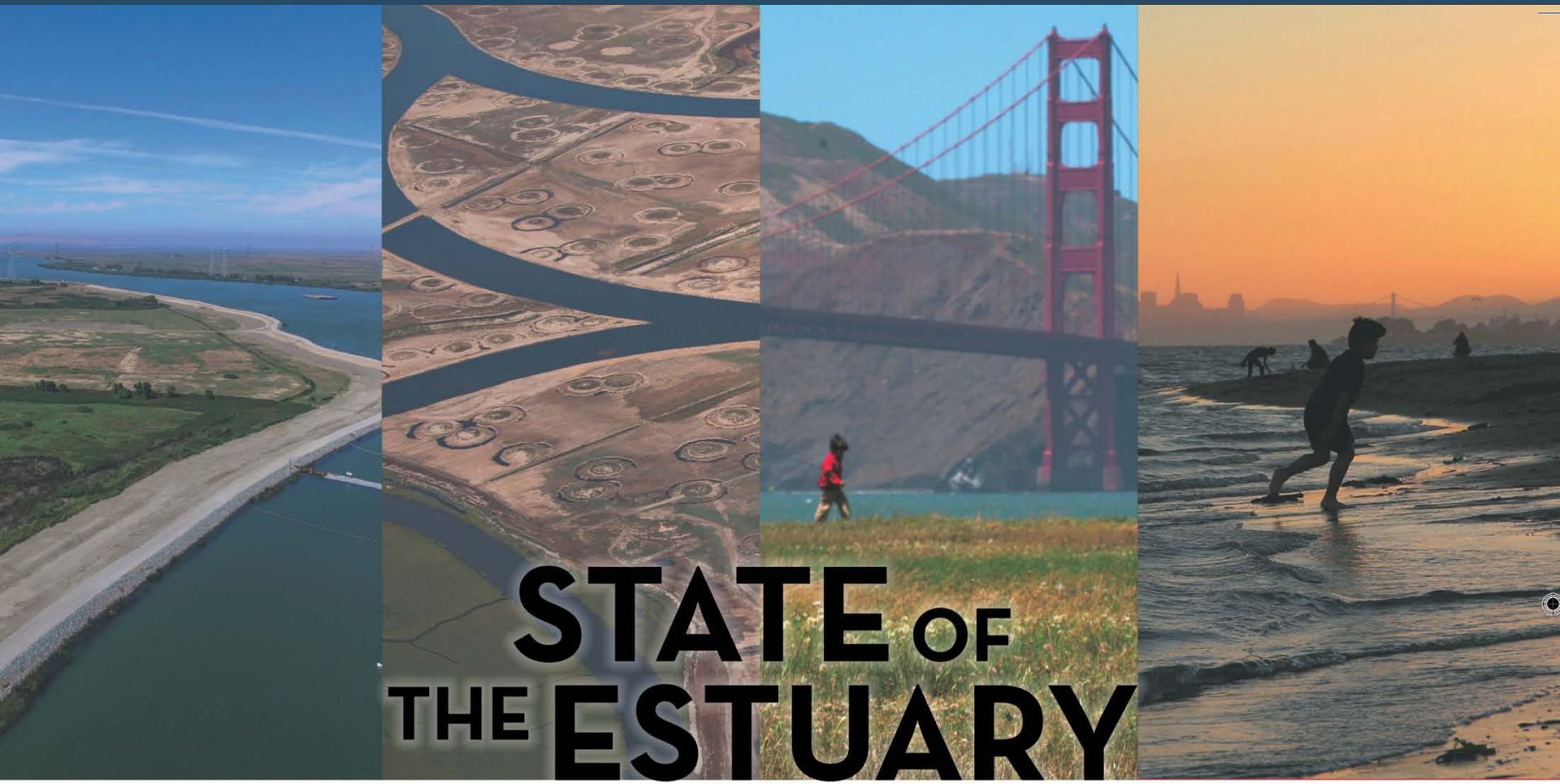
SOTER Update 2019

SAN FRANCISCO ESTUARY PARTNERSHIP

SFEP IC Meeting
8 Nov 2018

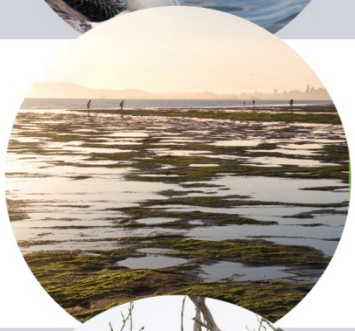


STATE OF THE ESTUARY

2015

WATER

- Safe for Swimming
- Safe for Aquatics
- Fish Safe for Eating
- Pervasive Pesticides
- A Drinkable Delta
- Freshwater Inflow
- Counting the Ecosystem's Share

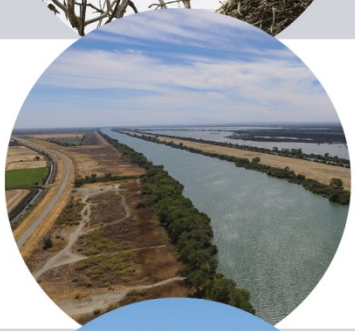


HABITAT

- Open Water
- Eelgrass
- Oyster Beds
- Tidal Marsh
- Woody Riparian
- Managed Ponds

WILDLIFE

- Benthic Invertebrates
- Fish
- Harbor Seals
- Breeding Waterfowl
- Wintering Waterfowl
- Herons & Egrets
- Tidal Marsh Birds
- Ridgway's Rail
- Three Delta Birds of Concern



PROCESSES

- The Ocean Connection
- Migration Space
- Sediment on the Move
- Beneficial Floods
- Blooms
- Invasions
- Food
- Feeding Chicks

PEOPLE

- Conserving Water
- Recycling Water
- Next Generation Education
- Public Access
- Volunteering for Watershed Health

2015 State of the Estuary Report

State of the Estuary Report 2015
Tidal marsh habitat indicators- Technical Appendix, 6/23/2015
Sam Safran, San Francisco Estuary Institute

Tidal marsh habitat indicators

Background and Rationale

Tidal marshes—including those found in the San Francisco Bay-Delta Estuary (the "Estuary")—provide a wide array of ecosystem services. They provide habitat and support food webs for wildlife, stabilize shorelines and protect them from storm damage, store floodwaters and maintain water quality, preserve biodiversity, store carbon, and offer profound opportunity for scientific study, education, recreation, and aesthetic appreciation (Costanza et al. 1997, Peterson et al. 2008, Palaima 2012, Zedler 2012).

Although tidal marshes have a wide array of functions, this study focuses on indicators that evaluate the Estuary's tidal marshes for their function as habitat for native wildlife. Specifically, the indicators selected here—the regional extent and patch sizes of tidal marsh—seek to help broadly assess the status of tidal marshes in the Estuary for their ability to support the life histories of native tidal marsh wildlife (defined as obligate or transitory plants or animals). It is worth mentioning, however, that although the focus here is on tidal marshes as habitat for native wildlife, the nature of the indicators (the regional extent of tidal marsh is perhaps the most fundamental measurement of tidal marsh habitat) means they likely integrate across the other services provided by the Estuary's tidal marshes. The focus on wildlife support is merited since much, if not most, of the interest and concern about tidal marshes relates to their function as habitat for native fishes, animals, and plants (e.g. BCDC 2008, SFBRWQCB 2010, SFEP 2011, USFWS 2013, SFEI-ASC 2014). Tidal marshes are especially valued for their contribution to the native biological diversity of the San Francisco Estuary. Many of the region's rare and endangered plants and animals rely on tidal wetlands for their survival, and legal mandates to protect these species provide the regulatory framework and funding behind a significant portion of tidal marsh restoration activities.

- 25 indicators
- 11 proto-indicators
- 92 pages
- Technical appendices
- Delta included in substantive way

2019 Update

- Shorter, fewer indicators
- More narrative
- Coordinated with CCMP, RA, WRMP, Delta Plan
- Thematic
- Needs a name

Criteria

Update existing indicators

- Estuary wide
- Updates available
- Affordable

Emerging indicators

- Data available for 2021 indicator
- Fits with theme

The physical and biological processes on which the health of the estuary depends are deeply damaged.

Will we choose to fix them or not?

Stewardship Theme

- Safe to Swim (Water)
- Tidal Marsh (Habitat)
- Public Access (People)

Thank You

Shira Bezalel