

## **Managing Subsided Lands in the Sacramento- San Joaquin Delta, California, USA**

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Drainage of land in the Sacramento-San Joaquin Delta in California, USA has caused extensive oxidation of peat soils, lowering approximately 386 mi<sup>2</sup> of land from 10 ft to as much as 29 ft below sea level. Although decades of subsidence have already depleted peat soils in areas of the Delta, subsided lands continue to cause significant challenges, such as increasing costs to drain soils, declining arability for agricultural production, water quality degradation, vulnerability to levee failure and flooding, and substantial emissions of greenhouse gases in areas where drained peat soils remain. A broad cross section of stakeholders, including public agencies and private sector parties, are developing, and testing many different approaches to manage subsided lands. The scale of subsidence in the Delta and the severity of its consequences for Delta agriculture, greenhouse gas emissions, and water quality indicates a need to assess existing management of subsided lands and the social, cultural, and economic trade-offs among different management approaches. To help address this, the Delta Independent Science Board is working to synthesize and evaluate the state of science related to adaptive management of subsided lands and provide recommendations to address knowledge gaps. This poster will share emerging insights into scientific knowledge gaps, economic and decision-making perspectives from landowners and public agencies, as well as recommendations to improve the adaptive management of a complex Delta.

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