



INFORMATION ITEM

Flood Awareness Month: 2021 Van Sickle Flooding Event

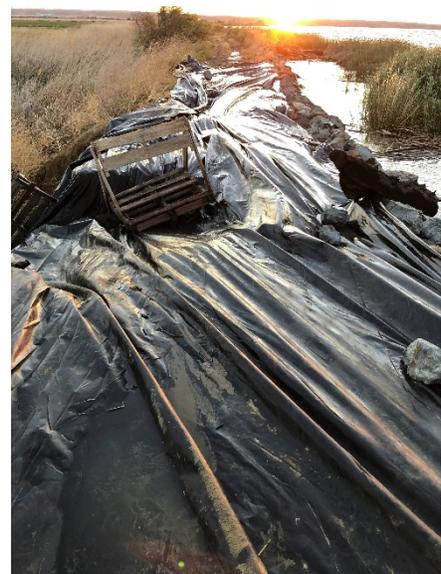
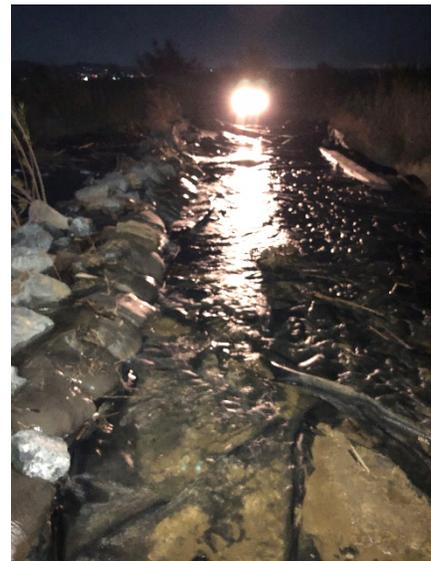
Summary: In June 2021, Van Sickle Island in the Suisun Marsh flooded due to high tides. Van Sickle Island has seen frequent overtopping events over the last 20 years. The island is protected by low agricultural levees that do not meet levee standards. Today's presentation will discuss the coordinated emergency response to this flood event by state and local flood officials, the lessons learned, and the perspectives gained over the last 15 years through multiple flood events and the flood adaptation strategies required on Van Sickle Island.

BACKGROUND

October is Flood Awareness Month and is considered the beginning of California's flood season. However, islands and tracts in the Suisun Marsh and the western Delta are always at risk of flooding, and rising sea levels will increase the probability of more frequent and severe flooding events in these areas going forward.

On June 24, 2021, high astronomical tides caused unexpected overtopping on Van Sickle Island, located in Solano County on the eastern edge of Suisun Marsh. The low agricultural levees surrounding the island protect 2,400 acres of managed wetlands, and the island is home to several duck clubs. Van Sickle Island is part of a larger land area that is prioritized as Very-High in the 2021 DLIS, for the estimated risk posed to the island's ecosystems and property.

Reclamation District 1607 (RD 1607) coordinated with the Solano County Office of Emergency Services and the Department of Water Resources (DWR) Flood Operation Center to notify agencies of the emergency and to request support. One responsibility of a reclamation district is to perform flood fight activities locally while engaging with mutual aid partners to respond to emergencies according to a county-state approved set of



guidelines identified in the reclamation district's flood safety plan. These guidelines support the local, county, and state responses to the emergency under the Standardized Emergency Management System (SEMS).

Flood control in the Suisun Marsh is managed under a unique set of regulations and physical characteristics that can limit the extent of work performed. Since 2006, Van Sickle Island has flooded and been reclaimed several times. These periodic flood events raise a question about how Delta islands and tracts rehabilitate their flood control systems in the face of rising sea levels and climate change.

The flood emergency response system informs the Council's planning activities, including adaptation strategies for *Delta Adapts*, and assists in future decision-making for implementing the Delta Plan. Both the Delta Reform Act and the Delta Plan support emergency preparedness, as follows:

The Delta Reform act states:

The Delta Plan shall attempt to reduce risks to people, property, and state interests in the Delta by promoting *effective emergency preparedness*, appropriate land uses, and strategic levee investments. (Wat. Code § 85305(a) (emphasis added).)

Delta Plan Risk Reduction Recommendation 1 (RR R1) states:

The following actions should be taken to promote effective emergency preparedness and response in the Delta:

- Responsible local, State, and federal agencies with emergency response authority should continue to implement the recommendations of the Sacramento-San Joaquin Delta Multi-Hazard Coordination Task Force (Wat. Code § 12994.5). Such actions should support the development of a regional response system for the Delta.
- Materials should be stockpiled in appropriate locations to make post-disaster repairs of breaches in levees along the water supply reliability corridor identified in Delta Plan Figure 7-6, the western islands important to the protection of water quality, and other levees, to complement improvement of levees as provided in RR P1.
- Local levee-maintaining agencies, with assistance from DWR, should develop their own emergency action plans, training, and flood fight material stockpiles.
- State and local agencies, and regulated utilities that own and/or operate infrastructure in the Delta should prepare coordinated emergency response plans to protect the infrastructure from long-

term outages resulting from failures of the Delta levees. The emergency procedures should consider methods that also would protect Delta land use and ecosystem.

The Delta Plan associates four administrative performance measures and one output performance measure with RR R1. Those measures are:

- **Administrative Measure RR R1-01: Consider Multi-Hazard Coordination Task Force Recommendations and Output Performance Measure 7.1: Multi-Hazard Coordination Task Force.** These measures track local, state, and federal agencies with emergency response authority and their consideration of 11 recommendations of the Multi-Hazard Coordination Task Force contained in the *Northern California Catastrophic Flood Response Plan*. All 11 emergency preparedness and response recommendations have been implemented.
- **Administrative Measure RR R01-02: Evaluate Potential for Stored Material Sites by Reinforcing Delta Levees.** This measure calls for a study of "over-reinforcing" levees in West Sacramento and using that material as needed for flood fighting in the Delta. An over reinforced levee has an oversized stability berm that can be used as a quick source of flood fighting material in a flood emergency. To date, DWR has developed a flood fighting material stockpile in Stockton, and the City of West Sacramento has undertaken the Southport levee improvement project.
- **Administrative Measure RR R01-03: Local Agencies Develop Flood Emergency Action Plans.** This measure tracks state support for creating local flood response plans. To date, DWR has funded local planning efforts using Proposition 1E funding.
- **Administrative Measure RR R01-04: Prepare Emergency Response Plans to Protect Utility Infrastructure.** This measure tracks agency efforts to prepare coordinated emergency response plans to protect infrastructure from long-term outages resulting from failures of the Sacramento-San Joaquin Delta levees. DWR's \$20 million Delta Flood Emergency Response Grant Program provides ongoing support for the development of local and County Flood Safety Plans. DWR also participates in/leads the development and/updates of emergency response plans on a State and Federal level.

INFORMATION ABOUT THE TOPIC

At today's meeting, Michael Moncrief, P.E., the District Engineer for RD 1607, will discuss the 2021 Van Sickle Island flood event response and post-event recovery efforts. Mr. Moncrief will also provide a local perspective concerning flood adaptation strategies in the Suisun Marsh, along with design, funding, and

regulatory issues in this region. In addition, Elizabeth Bryson, P.E., Manager with DWR's Flood Operation Section, will discuss the State's support of flood-fighting efforts and emergency funding available to local agencies from the Delta Levees Subvention Program.

QUESTIONS TO CONSIDER

1. What improvements could be made to the emergency response and coordination system in the Delta?
2. Is there sufficient funding for ongoing emergency response by local agencies?
3. How is DWR continuing to implement the recommendations of the Sacramento-San Joaquin Delta Multi-Hazard Coordination Task Force?

FISCAL INFORMATION

Not applicable.

LIST OF ATTACHMENTS

No attachments.

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