





Integration of Alameda County Flood Control Channels with the South Bay Salt Pond Restoration Project



Alameda County Flood Control
and Salt Pond Integration




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


with:
Brown & Caldwell
EDAW
HT Harvey
GeoResources
SFEI


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ACFCWCD flood control channels




South
San Francisco Bay

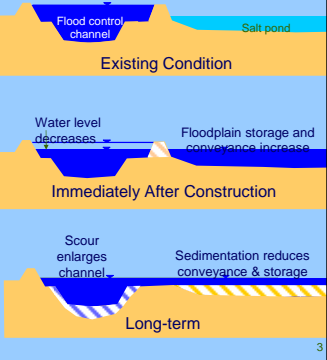
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- Levees separate channels from adjacent salt ponds
- Levee lowering/ removal for salt pond restoration can reduce fluvial flood hazard
- Goal is to optimize flood management benefit while supporting SBSP goals (short & long term)



Existing Condition

Immediately After Construction

Long-term

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PWA Contract Includes:

- SBSP integration & coordination
- Old Alameda Creek
 - Phase I action (E8a, E9 and E8x restoration)
 - Concept design, analysis, CEQA/NEPA
 - Final Design
- Alameda Creek Flood Control Channel
 - Alternatives analysis
 - Concept design
- Flood control levee alignment/feasibility


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Eden Landing Hydrodynamic Model



- Primary tool for alternatives analysis
- Simulates the interaction of creek flows and Bay tides
 - 1-D (channels/flood hazard)
 - 2-D (ponds/restoration)



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Old Alameda Creek


- ACFCF Facility
- Local drainage area
- Tide gate structure
- Sediment management




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Alameda Creek Flood Control Channel

- Initial feasibility studies completed (by others)
- PWA evaluating additional alternatives
 - Flood management priorities
 - SBSP Restoration context
 - Long term geomorphic evolution
 - Hydrodynamic modeling – short-term, long-term
- Will identify preferred alternative
 - Conceptual design


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ACFCC



- Model 3 alternatives for
 - Breach location/sizing
 - Levee lowering
- Compare performance
 - ACFCC flood levels
 - SBSP habitat goals
- Select preferred alt.


Legend

- MKE11 1-D Reach Model
- MKE21 2-D Area Model
- Highways

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Eden Landing Perimeter Levee

- Alignment
- Configuration
- Interior drainage
- Phasing
- Access




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- Year 1 (2006)
 - Overall Eden Landing model setup
 - OAC/Phase I project analysis
 - Phase I EIS/R
- Year 2 (2007)
 - OAC/Phase I project design
 - Alameda Creek alternatives analysis
 - Flood Control levee evaluation
- Year 3 (2008)
 - OAC/Phase I project construction
 - Alameda Creek conceptual design

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