

How to Address Delta Levee Investments



John Cain
Conservation Director
American Rivers
Berkeley, CA

Not Enough Time or Money for
Gardening Projects.

Instead,

Think about the Delta Flood
Management System as an Ecosystem
and Restore the Ecosystem to Serve as
a Flood Management System.

What is the flood system and the ecosystem lacking?

1. Wetlands and floodplains – the transition between land and water.
2. Conveyance capacity to safely convey large floods through the upper reaches of the Delta.
3. Stable levees system to protect water supply and prevent potentially catastrophic change to the Delta ecosystem.

Solution

1. Expand floodways and restore floodplains to give the rivers enough room to safely convey flood flows and also create habitat for endangered species.
2. Stabilize key Delta islands using bio-engineering approach to protect water supply for at least the next three decades and create a sustainable wetland complex in the Western Delta.

Not all Levees are the Same

Two Types of Delta Levees Serve Different Purposes:

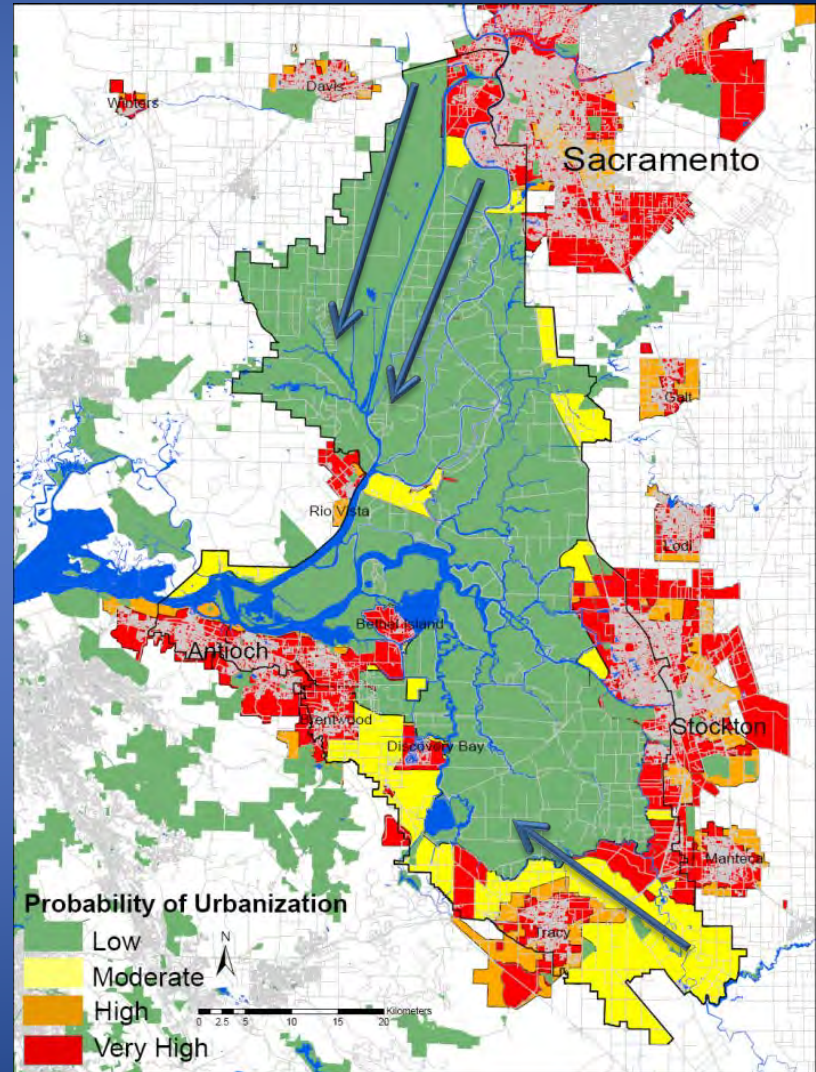
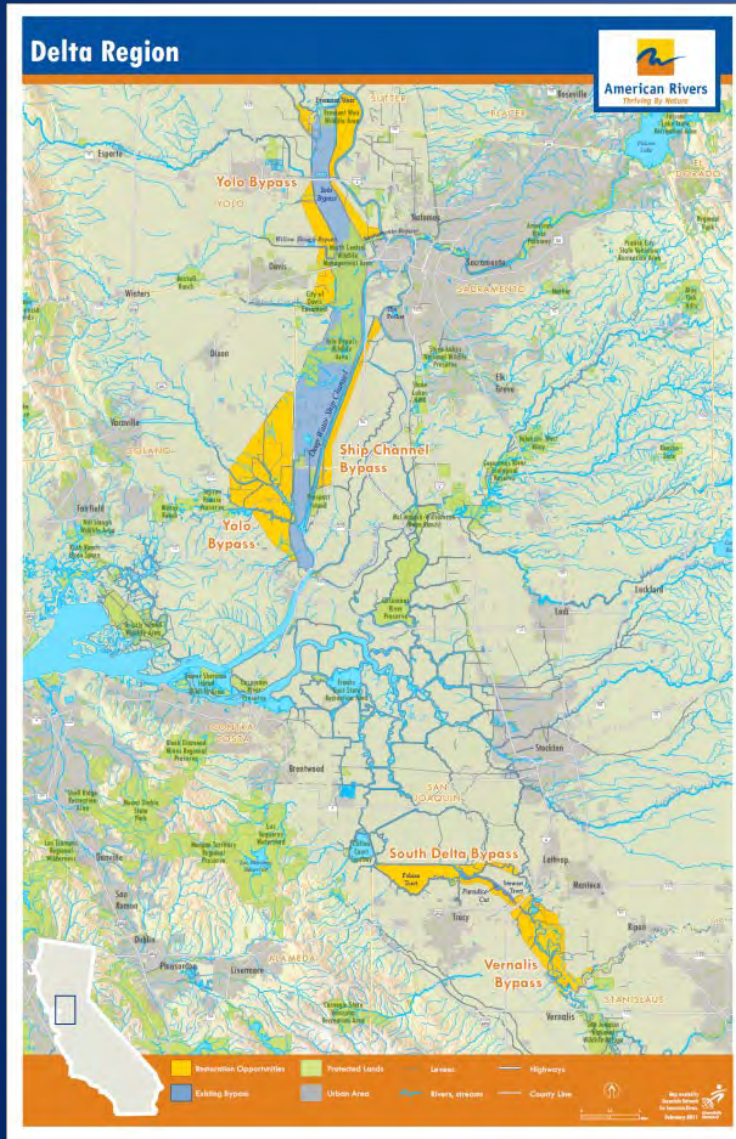
- Dry Levees prevent flooding of cities and farmland above sea level during large run-off events
- Wet levees prevent land below sea level from flooding 24:7.

Dry Levee Priority

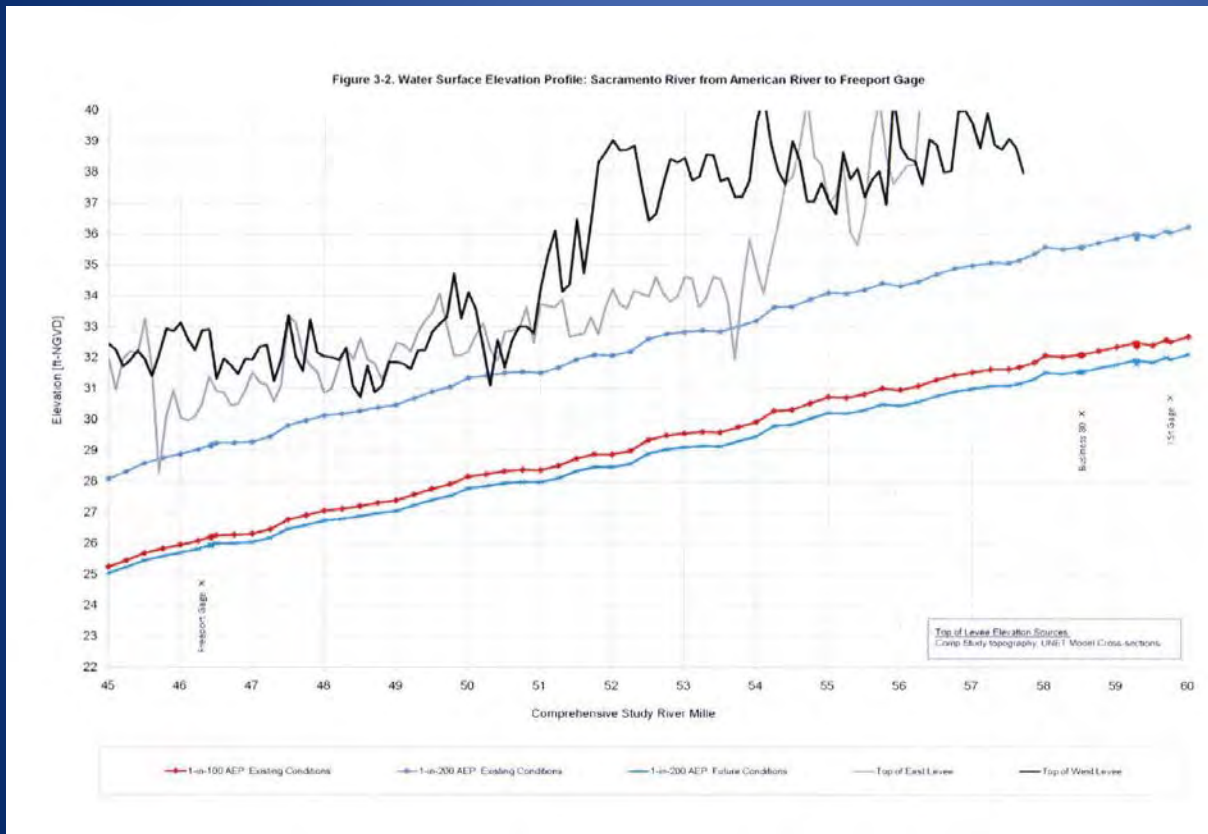
Prevent Urban Areas from Flooding by Creating Expanding Flood Bypasses in the North and South Delta.

- Expand Yolo Bypass
- South Delta Flood Bypass

Bypass Proposals for the Delta



Expanding the Yolo Bypass



WSE in the
mainstem
Sacramento
drops 3-4 feet
for 200 AEP.

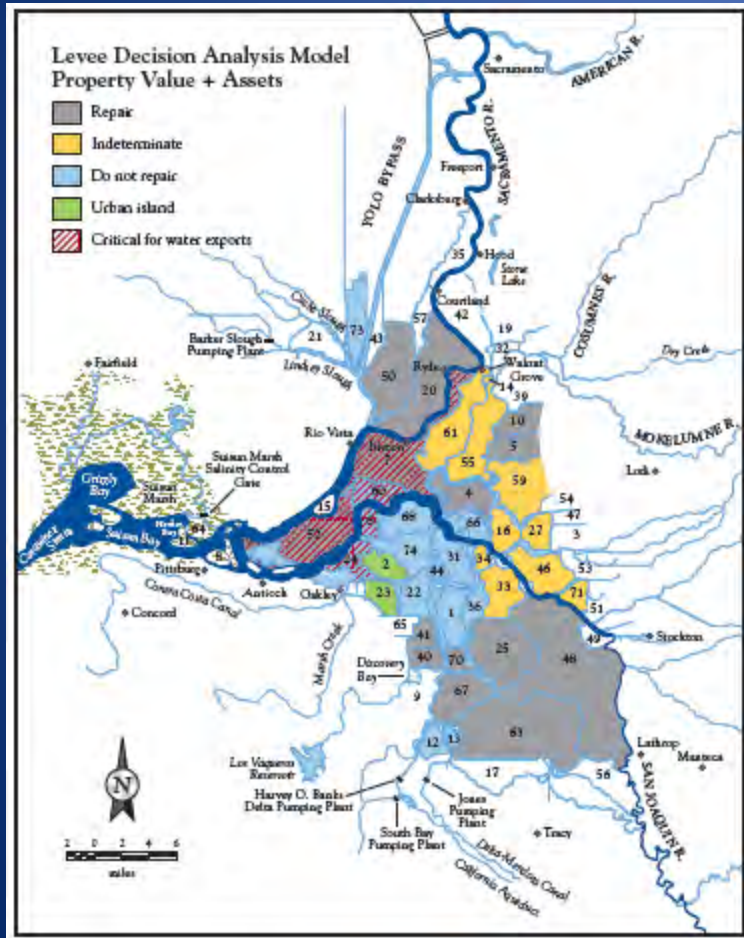
Wet Levee Priorities

Many more miles of wet levees and the value of land and associated economic activity is lower than urban land uses.

Prioritize Western Delta Islands for maintaining X2 location.

- Sherman
- Jersey
- Brannon/Andrus

Fix West Delta as part of Western Tunnel



What do we do when we disagree?

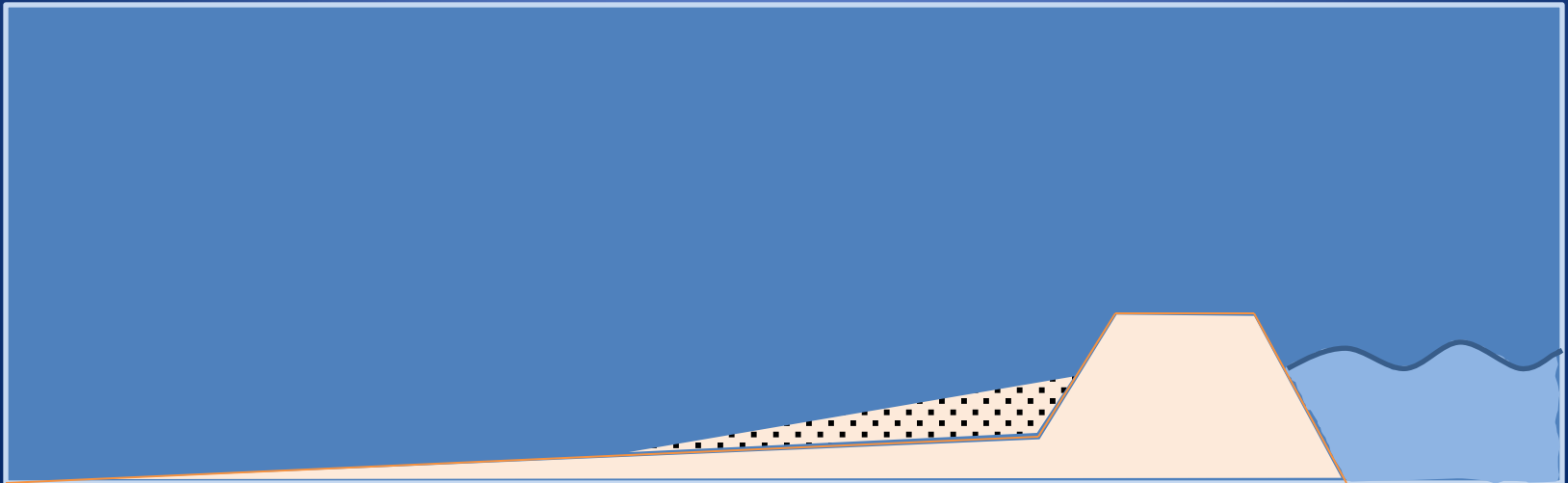
Focus on where we agree!

Various parties disagree about whether it is economically worthwhile to protect many Delta Islands, but does anyone believe we should allow the Delta to fail in an unplanned manner?

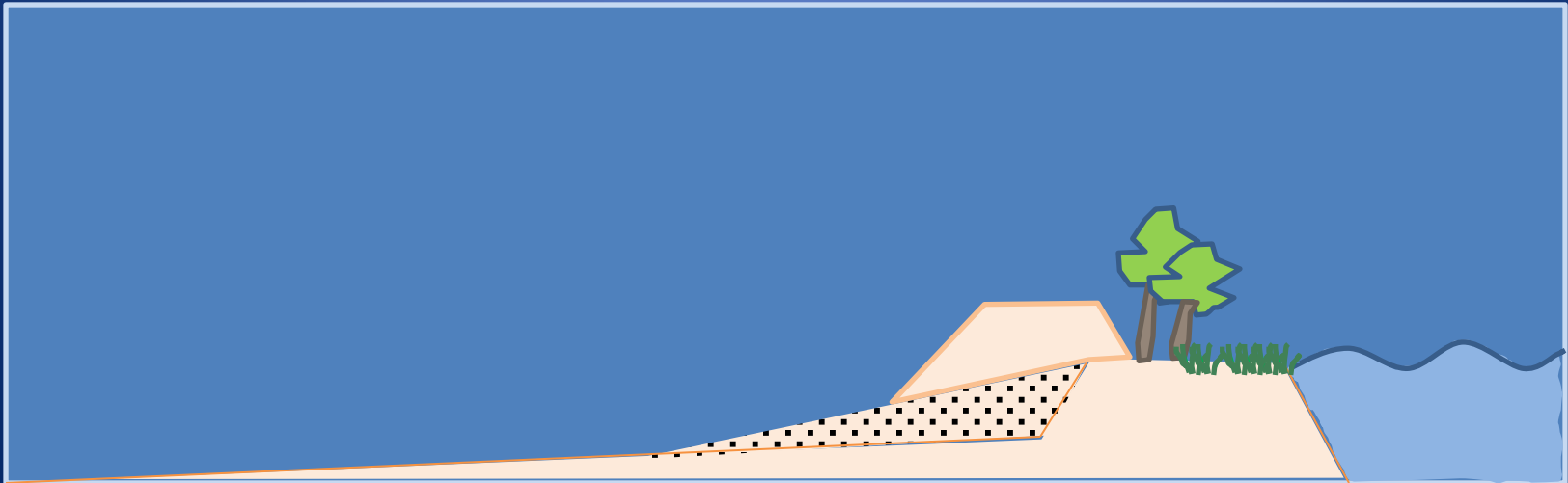
- If we return the islands back to the sea, how would we proceed to avoid third party impacts?
- If we decide to protect the islands, how would we proceed to bolster the levees?



Start by bolstering a toe berm.



Toe berm serves as a foundation for a levee setback that allows for green levee.



If and when the island floods, wider vegetated levee provides habitat and breaks wave fetch.

