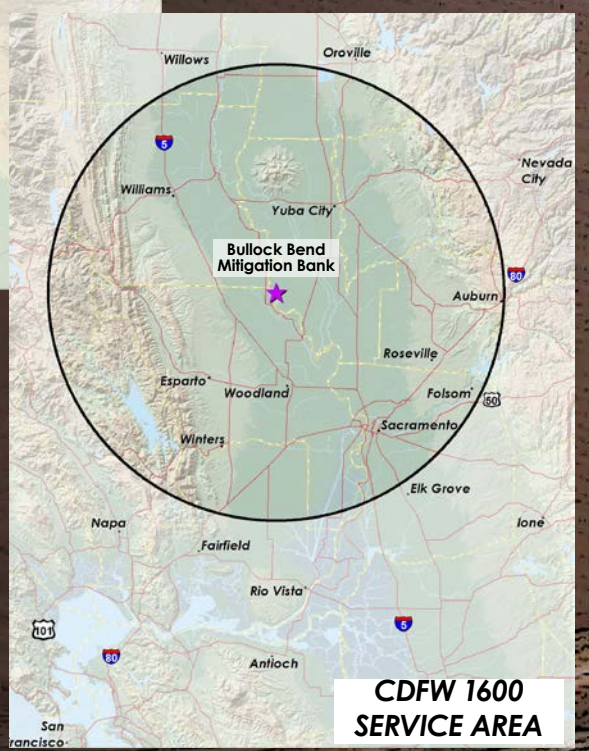
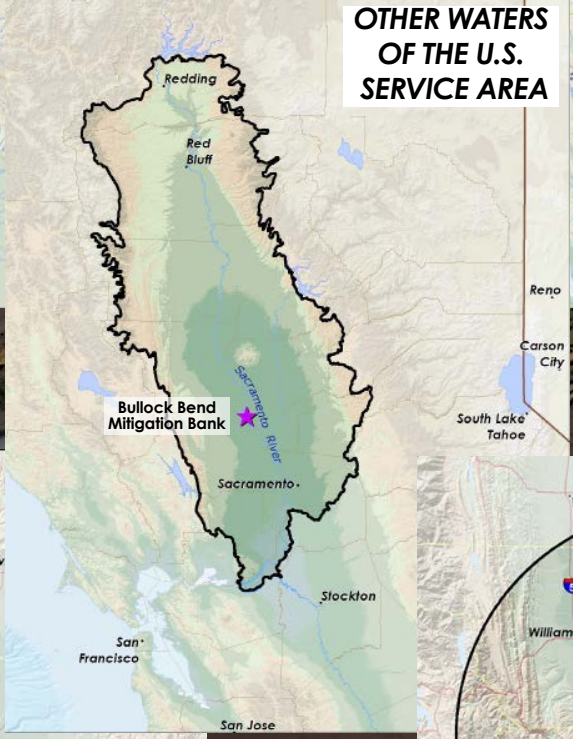
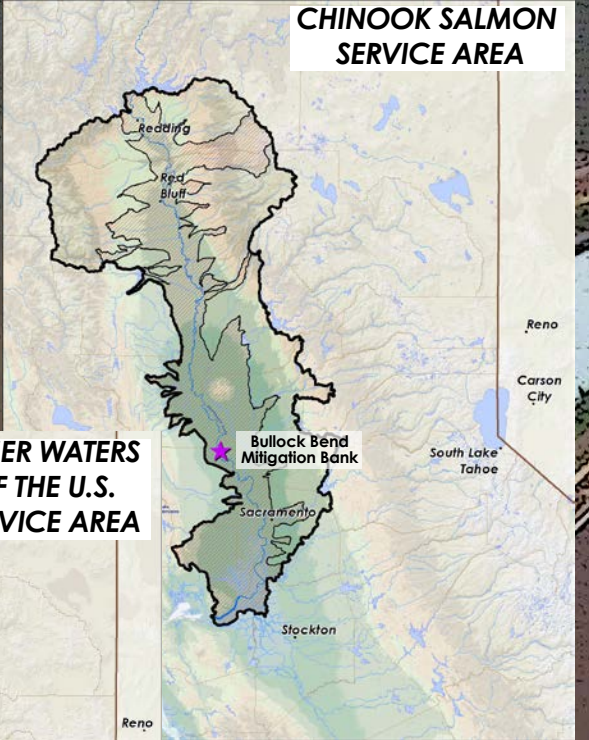


SERVICE area

BULLOCK BEND

Mitigation Bank

Bullock Bend provides in-stream habitat without impacting in-stream hydraulics.



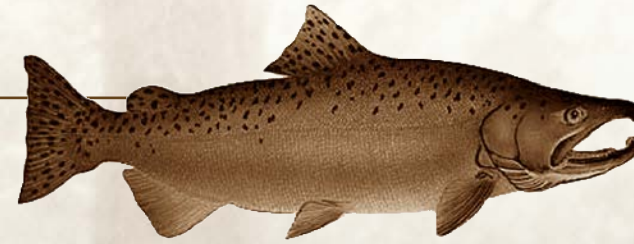
Western Office
600 North Market Blvd., Suite 3
Sacramento, CA 95834
916.646.3644

Headquarters
1400 Jack Warner Parkway NE
Tuscaloosa, AL 35404
205.562.5000

Southeastern Office
2128 Moores Mill Road, Suite B
Auburn, AL 36830
334.821.1999



VISION *statement*



CREDITING

THE PROJECT

The Bullock Bend Mitigation Bank will be 116.24-acres of restored floodplain habitat helping to recover salmon and steelhead in a manner compatible with flood management objectives. Credits at the Bank will provide environmental offsets often required for levee improvements and repairs.



MULTIPLE BENEFITS

Fish

From their spawning gravels, juvenile salmon and steelhead have a long journey down the Sacramento River. Floodplain refuges are scarce and limit populations - Bullock Bend will provide this habitat in a critical reach of the River.

Flood

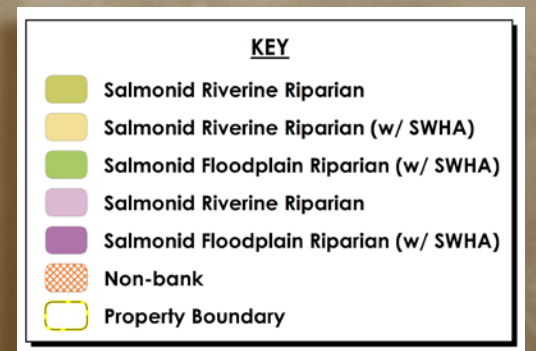
The Bullock Bend site was selected specifically because it can accommodate the proposed habitat without adversely affecting flood conveyance. The project will breach the site's tall farm berm and thus allow flood flows to enter the site, providing an increment of additional flood storage.

Farm

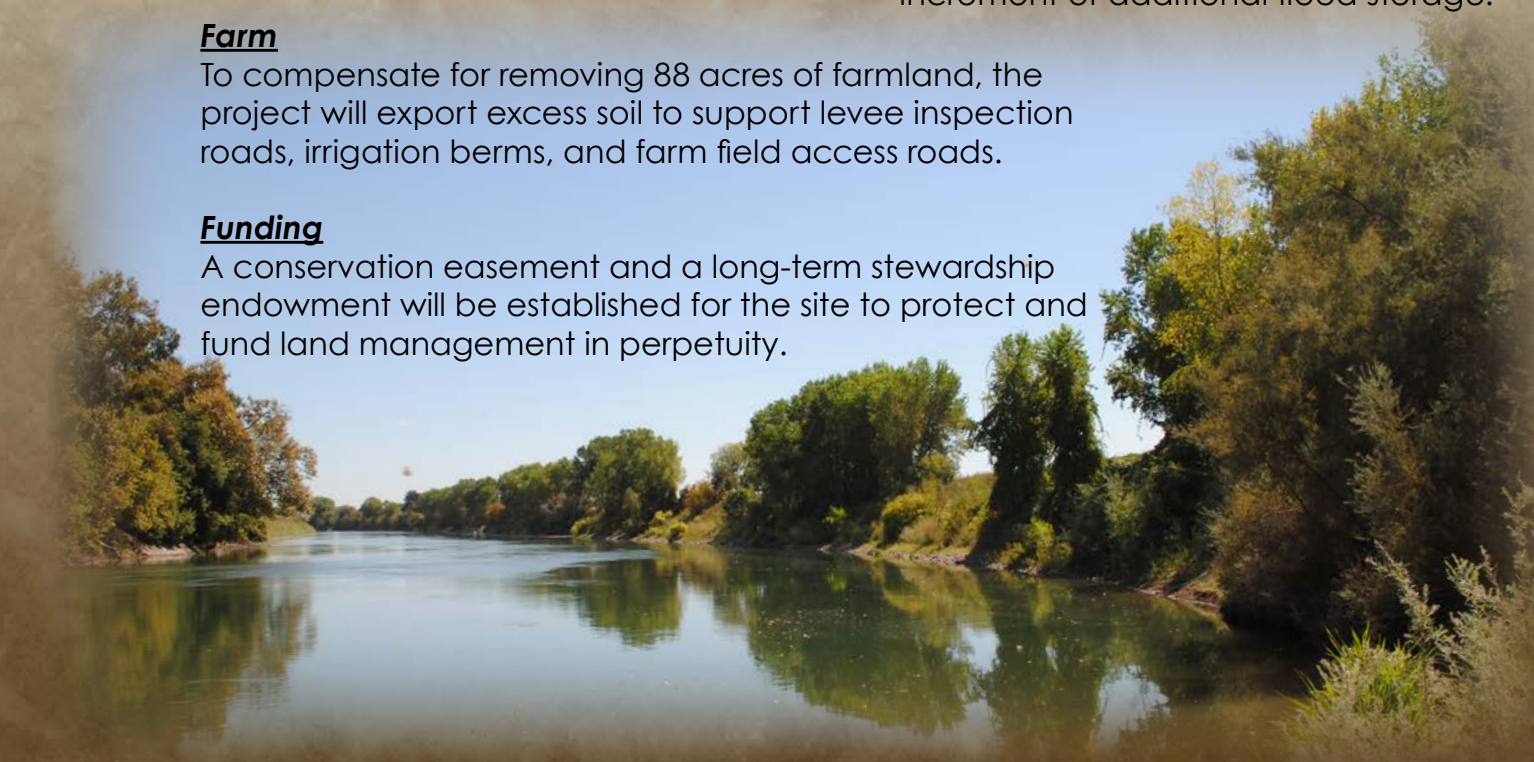
To compensate for removing 88 acres of farmland, the project will export excess soil to support levee inspection roads, irrigation berms, and farm field access roads.

Funding

A conservation easement and a long-term stewardship endowment will be established for the site to protect and fund land management in perpetuity.



The Bank will have credits available that have been approved by multiple agencies. While most of the site will support credits for salmon and steelhead (California Department of Fish and Wildlife and NOAA Fisheries), a subset of the Bank will have "Water of the U.S." (U.S. Army Corps of Engineers). In addition, the site will also offer credits for riparian habitat and Swainson's hawk (California Department of Fish and Wildlife).

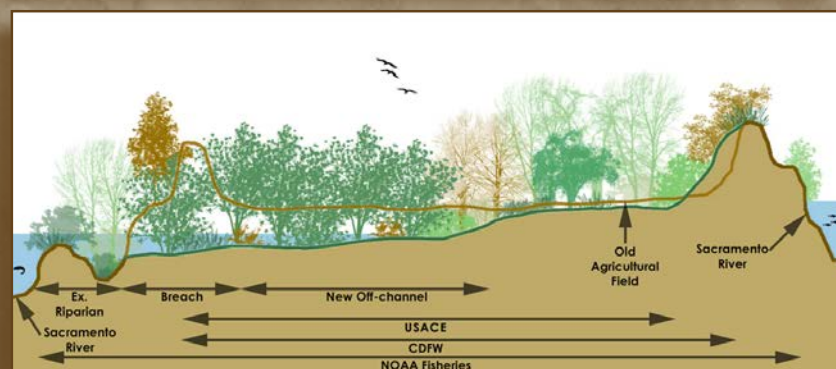
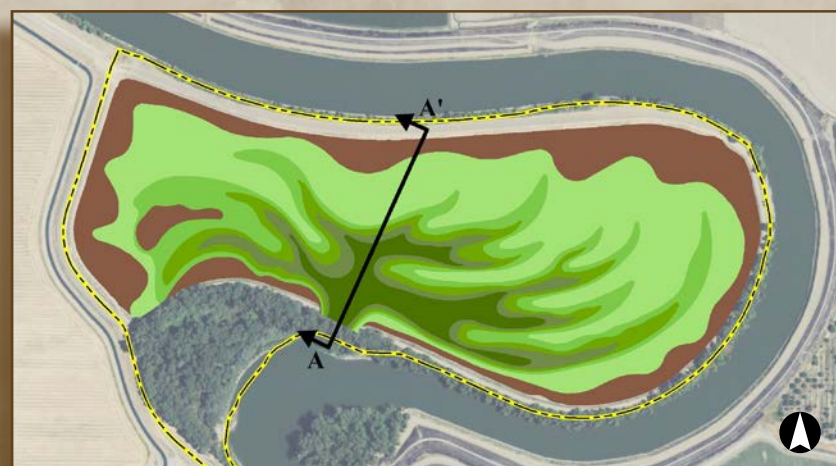


PROJECT contribution

This Bank will significantly increase floodplain acreage in this reach. Key factors include the appropriate landscape position, hydrology, soils and surface elevation to successfully restore a floodplain and create backwater channels for salmon and steelhead use.

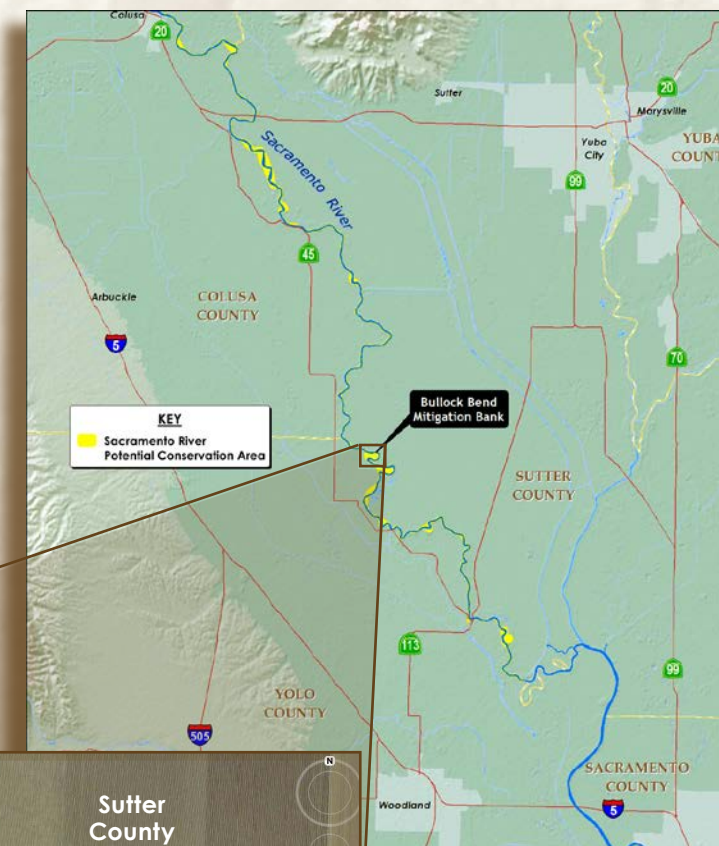
The Sacramento River Conservation Area Forum Handbook (SRCAF, 2003) identifies the site as an ideal location within the Colusa to Verona river section for the restoration of riparian habitat. More recently, the bank has been incorporated into the Mid and Upper Sacramento River Regional Flood Management Plan. This reflects the multiple benefits provided by the project.

The 116.24-acres of new conservation lands along the Sacramento River would add an additional 96 acres into the active floodplain increasing the riparian cover in the Colusa to Verona reach and protect and enhance over one linear mile of existing riverbank.

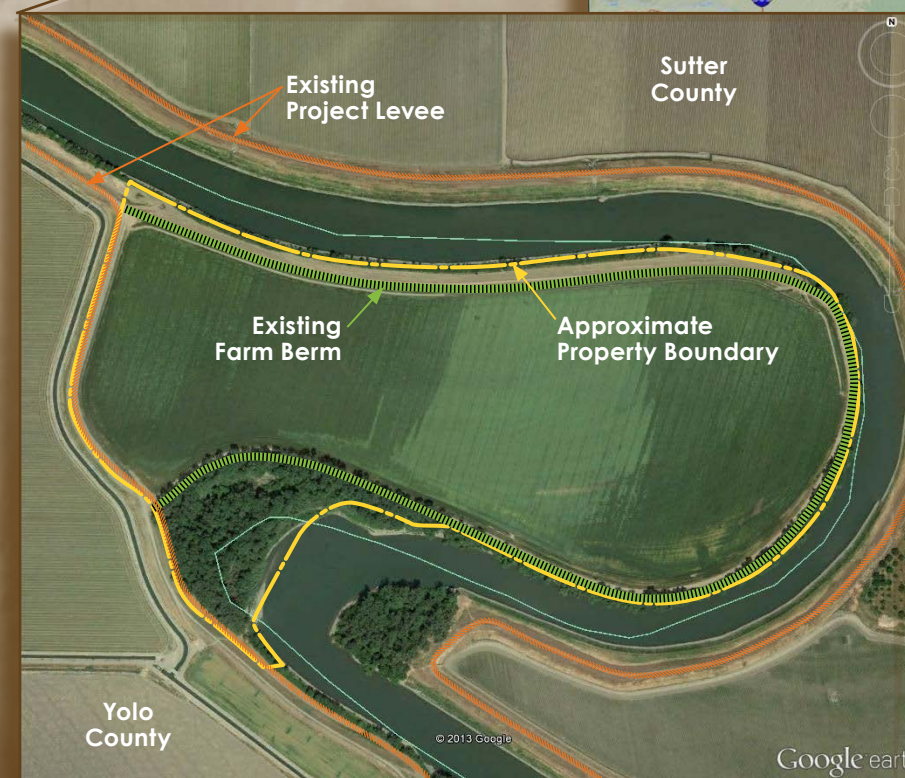


Breaching the farm berm will establish the hydrological connectivity, increasing habitat diversity (e.g. riparian vegetation, remnant slough features, shallow water habitat) and capacity (i.e., new floodplain for velocity refugia) for salmonid use during high-water events and an additional 96+ acres of floodplain habitat will be available for salmon and steelhead use.

ORIENTATION



The Bank is on the Sacramento River (starting at River Mile 106) and is located approximately 11 miles north of Knights Landing, in a rural portion of Yolo County, California.



SOURCE:
Sacramento River Conservation Handbook (SRCAF, 2003)

The Bank will be on a 116.24-acre portion of the 119.65-acre property. The residual 4.65 acres covers some of the existing flood control Project Levee and the maintenance area along the waterside toe of the Project Levee.

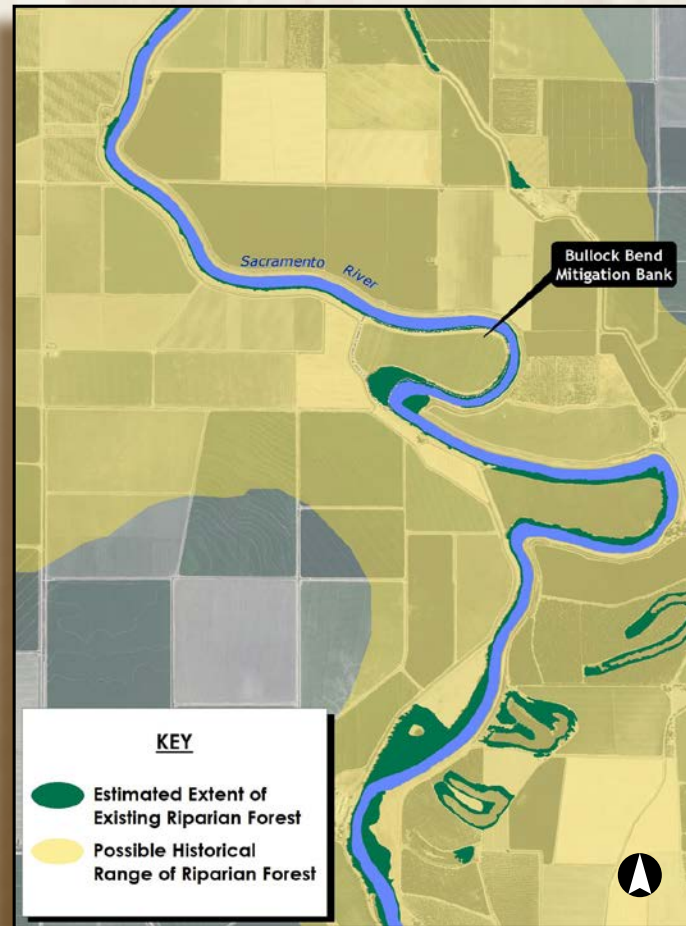


HISTORICAL *setting*

Prior to the major influx of immigrants to California after the discovery of gold in 1848, riparian forest occurred in broad corridors along the rivers and stream channels of the Sacramento Valley.

After the gold rush of 1849, settlers removed vast amounts of riparian vegetation for cultivation, fuel wood, and for agricultural use leaving only thin, and 'discontinuous' bands of riparian vegetation (Thompson 1964).

Many of the historic natural environmental processes have been dramatically altered by changes to the system. This included flood control management and conversion of habitat to agriculture. The active floodplain historically provided alcoves and backwater channels that could be used by out-migrating juvenile salmonids.

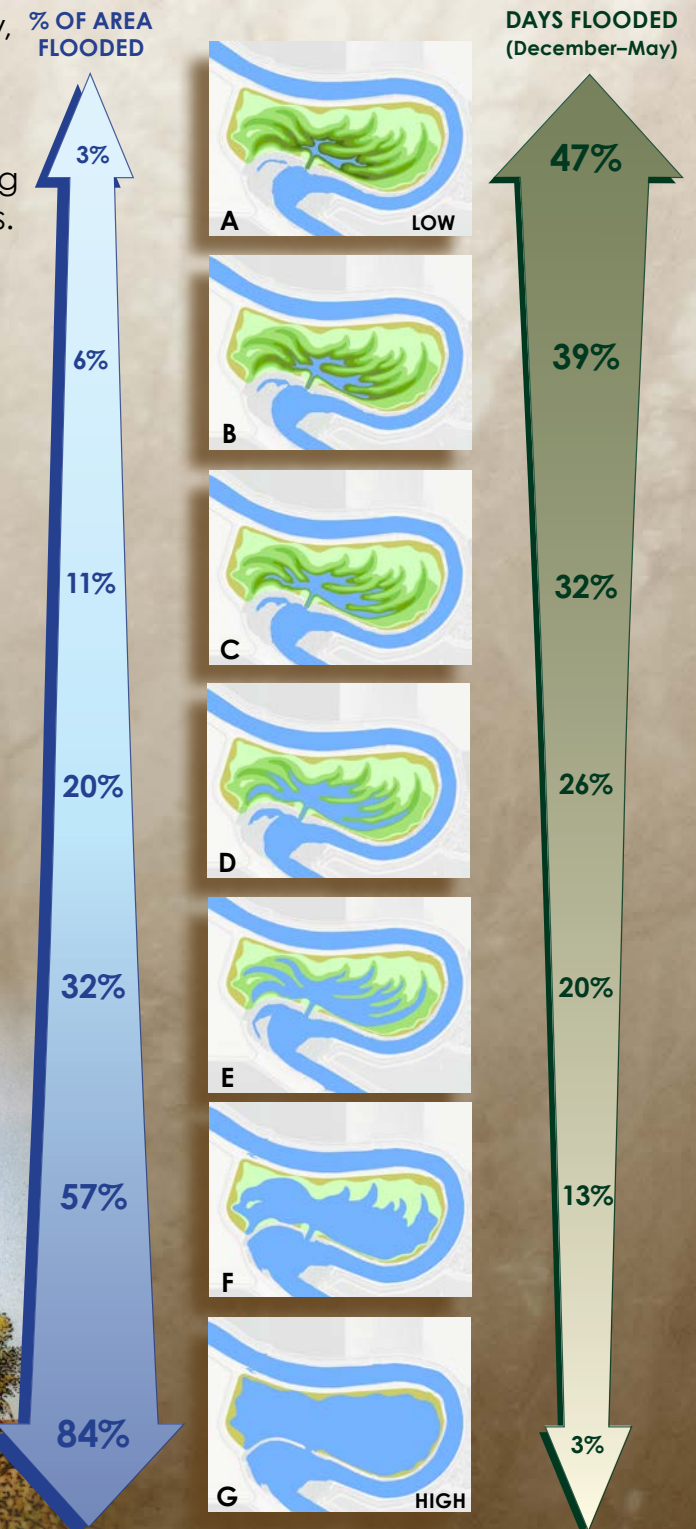


RESTORATION *concept*

Restoration focus is on restoring connectivity between the river and its floodplain on the southerly (downstream) side of the property, and re-grading the site to re-establish an active floodplain. The project will create backwater and off-channel refugia habitat that will be inundated from seasonal flooding and can be used by out-migrating salmonids.



FLOODING *schedule*



Planting would occur across the site; native oak trees would be planted in the higher floodplain riparian habitat elevation areas, willow and cottonwood cuttings in the lower and wetter floodplain riparian areas.

PRESENT *conditions*

The Bank property is primarily in agricultural production (e.g., winter wheat, tomatoes, etc.), featuring a single 'leveled' field east of, and adjacent to, the Sacramento River Westside Levee District (SRWSDL) Project (flood control) Levee. A 'farm berm' connects to the SRWSDL Levee on the upstream and downstream edges of the property. The portion of the property outside the farm berm that does flood consists of mature native riparian vegetation covering an undulating landscape of low to high terraces, backwater channels and shallow-depth alcoves.

