

Mayberry Farms Subsidence Reversal and Carbon Sequestration Project

Project Goals:

1. Control and reverse subsidence on a 307-acre property on Sherman Island using permanent flooding techniques.
2. Determine amount of carbon sequestered for project.
3. Study waterfowl use and waterfowl hunting success on permanently flooded delta wetlands.
4. Demonstrate the applicability of tested management practices to Delta and Suisun Marsh.

Project Description:

The Mayberry Farms Subsidence Reversal and Carbon Sequestration Project is a permanently flooded wetland on a 307-acre parcel on Sherman Island that is owned by the Department of Water Resources (DWR). The project has restored approximately 192 acres of emergent wetlands and enhanced approximately 115 acres of seasonally flooded wetlands.

The Mayberry Farms project was conceived as a demonstration project that provides subsidence reversal benefits and develops knowledge that can be used by operators of private wetlands, including "duck clubs," which manage lands for waterfowl-based recreation. By maintaining permanent water, the growth and subsequent decomposition of emergent vegetation is expected to control and reverse subsidence. The project is also anticipated to provide climate benefits by sequestering atmospheric carbon dioxide (CO₂). The project has demonstrated, through water quality sampling and wildlife survey data, that it provides year-round wetland habitat for waterfowl and other wildlife.

Construction was in summer 2010 and had a total cost of \$1.6 million. Several projects at the site are currently ongoing and performed routinely by Department staff and their consultants. The Department is collaborating with UC Berkeley researchers to collect GHG data that will be used to develop a Wetland Protocol for Carbon Sequestration in cooperation with the California Air Resources Board's Cap and Trade Program. In addition the Department is working with researchers from the Moss Landing Laboratory and the Central Valley Regional Water Board to monitor Methyl Mercury levels and test BMPs to control MeHg in a permanently flooded and managed wetland.

Schedule and Milestones:

2007 – Develop restoration design

2008-2009 –Environmental permitting

Spring/Summer 2010 –Project construction and restoration

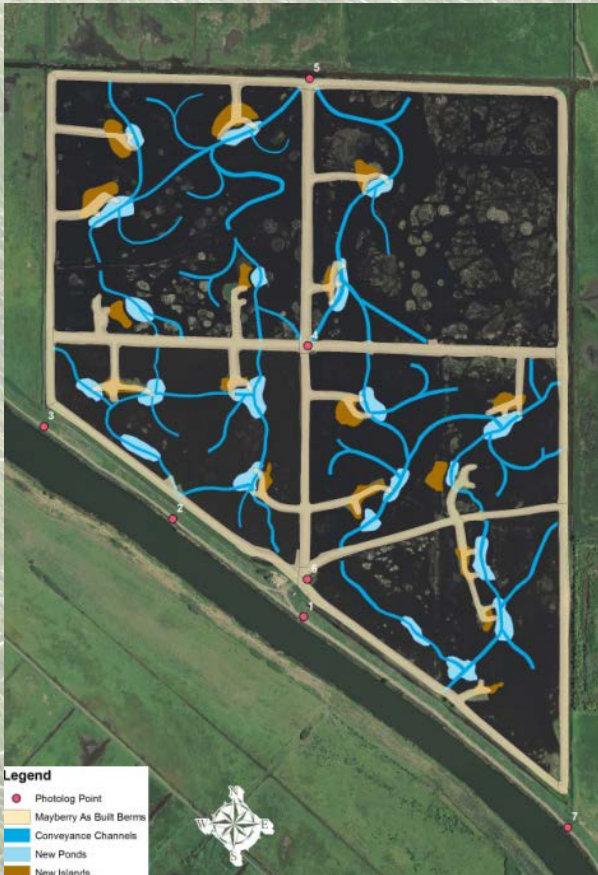
Summer 2010 –Complete monitoring plan/initiate monitoring

Fall 2010 –Project implementation: flooding and monitoring

2010-2017 – Carbon measurements, water quality sampling, surveys



A hunting club leases the 307-acre Mayberry Farms property owned by DWR on Sherman Is.



Planned restoration has created permanently flooded wetlands for waterfowl habitat and subsidence reversal. Carbon sequestration is measured along with other monitoring to demonstrate the biological and recreational benefits of Delta wetland restoration.

For more information contact:
Bryan Brock, Senior WR Engineer
bpbrock@water.ca.gov

(916) 651-0836

Department of Water Resources
PO Box 942836; Sacramento, CA 94236