McCormack-Williamson Tract Project (UC Davis)

The nearly complete transformation of the Delta over the last 160 years has been identified as a major and yet underappreciated factor contributing to the Delta's ecological changes and loss of native species. This transformation has included the over 95% loss of tidal freshwater wetland and similar declines in other natural habitats. Research over the last decade in the Delta and elsewhere has pointed to the need for larger landscape-scale restoration that supports heterogeneous habitat mosaics with the potential to serve broader ecosystem goals; a need which has been identified in numerous state and federal agency planning documents for the Delta. One important development has been the discussion of how different regions in the Delta may be prioritized for different suites of ecological functions depending on various environmental, topographic, as well as socio-political and economic constraints. The "Eastside Rivers" region described by Moyle et al. (2012) encompasses the NE Delta landscape and was identified for its potential to support native freshwater riparian and floodplain species as well as salmon rearing. The largely unregulated hydrograph of the Cosumnes River provides necessary hydrologic variability and sediment to sustain natural physical processes. This is one of the few places within the Delta where the gradient from subtidal, intertidal, and seasonal floodplains is present and connected to fluvial processes and where multiple restoration projects are being connected at the larger landscape scale. As one of six priority habitat restoration areas identified within the Delta Plan, it is supported by a long history of scientific studies focused on informing restoration actions throughout the region and elsewhere. These include studies on floodplain processes (Florsheim and Mount 2002), primary and secondary productivity, fish survival and growth in the Cosumnes River, as well as specialized studies at McCormack-Williamson.

Restoration of intertidal habitat within the Delta has been highlighted as a target for restoring both physical process and threatened and endangered species that reside or migrate through the Delta. McCormack-Williamson Tract (WMT) provides an opportunity to restore a gradient from sub-tidal to floodplain. In addition to MWT, the surrounding waterways into Delta Meadows as well as up the Cosumnes River provide the opportunity to observe how various flows and hydrologic conditions have the potential to drive different ecological processes.