

Van Vleck Ranch Mitigation Bank (California)

I. OVERVIEW & BACKGROUND

Location:	Sacramento County, California
Date established:	April 2009
Size of bank:	765.45 acres
Species:	Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>), Swainson's hawk (<i>Buteo swainsonii</i>) Vernal pool fairy shrimp currently occur onsite. Swainson's hawks have been recorded nearby, and the site provides suitable foraging habitat.
Method of credit generation:	Vernal pool preservation and creation, grassland preservation
Credits available:	35.15 (out of 530.94 total)
Interesting features:	First bank established under new rule, mitigation bank with endangered species

II. INTRODUCTION / SITE SELECTION

Van Vleck Ranch Mitigation Bank (Van Vleck) is a 765-acre subset of an approximately 4,000-acre contiguous ranch owned by Van Vleck Ranching and Resources Corporation (VVR Corp.). The property is located in Sacramento County, California. Van Vleck was established through a Bank Enabling Instrument (BEI) between VVR Corp. —the land owner, Westervelt Ecological Services (WES)—the bank owner and operator, the U.S. Army Corps of Engineers (Corps), U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service (USFWS), and California Department of Fish & Game. The Sacramento Valley Conservancy holds the permanent easement over the bank.

Upland habitat supporting vernal pools and swales is rapidly diminishing in Sacramento County. WES partnered with VVR Corp. for the purpose of establishing Van Vleck as a vernal pool and Swainson's hawk bank. Van Vleck supports the entirety of a localized sub-watershed, incorporating not only the vernal pool complexes, but the hills that buffer the site and contribute to the site's hydrology.

Van Vleck contains approximately 27 acres of jurisdictional wetlands, preserved as habitat for the federally threatened vernal pool fairy shrimp. Additionally, 16.24 acres of vernal pools and swales were created within the natural topography of the site and inoculated with seeds

and cysts from the existing wetland resources on the site to establish viability. The remaining 722 acres of upland grasslands are preserved as foraging habitat for the Swainson's hawk, a threatened species under the California Endangered Species Act. Figure 1 shows an example of a vernal pool fairy shrimp, while figure 2 displays an example of the Swainson's hawk.



Figure 1. The vernal pool fairy shrimp (*Branchinecta lynchi*).



Figure 2. The Swainson's hawk (*Buteo swainsonii*).

III. SERVICE AREA DETERMINATION

Van Vleck has three service areas, independently defined for vernal pool creation, vernal pool preservation, and Swainson's hawk. The bank occurs within the Southeastern Sacramento Valley Vernal Pool Region. The boundary for the vernal pool creation credit service area is based on the watershed approach and encompasses the southern half of this vernal pool region, including portions of Sacramento, Amador, and San Joaquin counties. Appendix A shows a map of the service area for vernal pool creation credits.

The service area for vernal pool preservation credits encompasses the entire vernal pool region and includes portions of Sacramento, Amador, San Joaquin, El Dorado, Placer, Sutter, Nevada, and Yuba counties. Appendix B shows a map of the service area for vernal pool preservation credits.

The service area for Swainson's hawk credits is limited to eastern Sacramento County, including Rancho Cordova and portions of the unincorporated areas in Sacramento County within the Urban Development Area. Appendix C shows a map of the service area for Swainson's hawk credits.

IV. CREDIT DETERMINATION / METHODOLOGY

Van Vleck has three types of credits available. Credits were awarded on a per acre basis, meaning that one credit is available for each acre of habitat. The bank was awarded 27.10 vernal pool preservation credits—available for impacts to vernal pool fairy shrimp habitat; 16.24 vernal pool creation credits—available for impacts to vernal pool invertebrates and Clean Water Act section 404 wetlands; and 722.11 Swainson’s hawk preservation credits—available for projects impacting in-kind annual grassland foraging habitat.

Credits are released for sale when certain milestones are met. For the vernal pool and Swainson’s hawk preservation credits, credits are released according to the following schedule: 15% of the total credits upon the bank establishment date; 25% of the total credits upon funding a minimum of 15% of the endowment fund; 15% of the total credits upon funding a minimum of 40% of the endowment fund; 15% of the total credits upon funding a minimum of 70% of the endowment fund; and the remaining credits upon full funding of the endowment fund.

For vernal pool creation credits, credits are released according to the following schedule: 15% of the total credits upon the bank establishment date; 25% of the total credits upon submission of the as-built drawings; 15% of the total credits upon attainment of year two performance criteria; 15% of the total credits upon attainment of year three performance criteria (including a verified waters of the U.S. jurisdictional determination); 15% of the total credits upon attainment of year four performance criteria; and all remaining credits upon attainment of year five performance criteria and verified waters of the U.S. jurisdictional determination.

V. FINANCIAL ASSURANCES

The BEI required four types of financial assurances, three of which were for security. The BEI required WES to provide, prior to the first credit release, a construction security in the amount of 100% of a reasonable third-party estimate or contract to construct the created vernal pools. The construction security was to remain in effect until construction was complete. The BEI also required WES to establish a performance security concurrent with the transfer of the first credit and in the amount of 20% of the construction security. The performance security was to remain in effect until all performance standards were met. The third security the BEI called for was an interim management security, in an amount equal to the estimated cost of implementing the interim management plan for the first year of the interim management period. All securities were required to be in the form of irrevocable standby letters of credit.

In addition to the securities, the BEI called for the establishment of an endowment fund, in which the income is to provide for the financial requirements of the long-term management of the bank. In order to determine the annual cost of management, and therefore the amount of principal required, the bank sponsor provided a Property Analysis Record (PAR). PAR is the computer program developed by the Center for Natural Lands Management that assists in forecasting the perpetual tasks of managing a site, the cost of those tasks, and the associated

long-term funding. After considering the costs of such tasks as site maintenance, surveys, habitat maintenance, water management, public services, reporting, equipment, operations, and administration—totaling \$26,662.95 per year at Van Vleck, PAR determined that the fund required a principal of \$592,510, which works out to \$765 per credit sold.

VI. MANAGEMENT (CURRENT & LONG TERM)

Van Vleck has both an interim and long-term management plan. WES, as the bank sponsor, is required under the BEI to conduct management and monitoring activities in accordance with an interim management plan (IMP) until all performance standards have been met and the endowment fund has been fully funded for one year. Activities covered by the IMP include changing grazing practices near constructed wetlands for the first year, monitoring inoculated vernal pools for unfavorable, weedy species, fence and trash maintenance, and annual qualitative species surveys.

VVRR Corp. is responsible for the perpetual management and monitoring of the bank property in accordance with the long-term management plan (LTMP). The LTMP is to be funded by the endowment fund, and it is tied to the BEI and the conservation easement. Tying the LTMP to the conservation easement ensures that the LTMP remains enforceable since the BEI ceases to exist once the last credit is sold and the bank is considered “closed.” Examples of the LTMP’s objectives include monitoring, maintaining and conserving vernal pool wetland habitats, conserving and protecting vernal pool invertebrates, and conserving and protecting Swainson’s hawk habitat.

VII. LESSONS LEARNED

Van Vleck is a mitigation bank with endangered species credits. As such, it demonstrates the differences between how the Corps and USFWS deal with certain aspects of banking. One aspect illustrated here is in the credit methodology. Recall that vernal pool creation credits are reserved for impacts to jurisdictional wetlands, whereas vernal pool preservation credits are reserved for impacts to fairy shrimp habitat. This is because the Corps Sacramento District interprets the 2008 Compensatory Mitigation Rule (Rule) to prefer created wetlands over preserved wetlands. In contrast, the USFWS prefers impacts to vernal pool habitat to be compensated through preservation. (The USFWS does, however, encourage habitat creation for other species such as the Valley Elderberry Longhorn Beetle, California Tiger Salamander, and Giant Garter Snake.)

A second aspect illustrated by Van Vleck is service area determination. Recall that Van Vleck has different service areas for vernal pool preservation and vernal pool creation credits. The reason for the different service areas is because under the Rule, the service area for impacts to jurisdictional wetlands should be determined using a watershed approach, whereas the service area for endangered species habitat is based on the species’ recovery plans, if available.

VIII. APPENDICES

Appendix

Service Area Map for vernal pool creation creditsA

Service Area Map for vernal pool preservation creditsB

Service Area Map for Swainson’s hawks foraging credits.....C