

INITIAL BASELINE SURVEY

VALLEJO SWETT, EASTERN SWETT, & KING RANCHES SOLANO COUNTY, CALIFORNIA



Photo (Vallejo Swett Ranch) by Andi Henke, PG&E



Photo (CRLF, Vallejo Swett Ranch) by Kevin Hinsta



Photo (Burrowing owl, King Ranch) by Solano Land Trust



Photo (Venus thistle) by Samantha Hillaire, GANDA

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EXECUTIVE SUMMARY

This *Initial Baseline Survey (IBS)* was prepared by the Solano Land Trust (SLT) in partnership with Pacific Gas and Electric Company (PG&E) and with the assistance of a team of biological, physical, agricultural, and recreation consultants. More detailed technical reports for selected resources are found within the four appendices. This baseline survey documents the physical, biological, infrastructure, agriculture, and open-space resources of three recently purchased SLT properties. These properties are the 905-acre Vallejo Swett Ranch, the 1,408-acre Eastern Swett Ranch, and the 1,617-acre King Ranch. The combined acreage of these ranch parcels is 3,930 acres, with each property situated contiguously from west to east in the southwestern portion of Solano County, California (Figure 1). The *IBS* refers to these areas collectively as “the Properties.” The Orchards Easement, an almost 50-acre connecting parcel between the Vallejo Swett and Eastern Swett Ranches, is a conservation easement property that is included in portions of the baseline survey because of its significance as an important connecting wildlife corridor between the ranches and as a primary access point.

The *IBS* is an associated volume to the SLT’s *Adaptive Management Plan (AMP)* for the Properties. The *AMP* sets property management goals, reviews recommendations and proposed actions, and addresses monitoring plans for resources reviewed within the *IBS*. The *IBS* should be used in association with the *AMP*, which is currently under development.

The major significance of the Properties is their relatively large size and contiguous alignment, as well as the presence of several habitat communities and associated upper watersheds that support documented populations of protected special-status¹ plants and animals. The Properties are within the Tri-City and County Joint Planning Area and are designated for habitat, agricultural, and open space uses. Agriculture, an important Solano County industry, will be retained on the Properties. The location of the Properties near the three major cities of Benicia, Vallejo, and Fairfield in the San Francisco Bay area also provides the potential for low-impact open space recreational uses in an area where few opportunities are currently available.

This baseline assessment documents the current state of the natural, agricultural, and cultural resources on each ranch property and discusses the requirements, rules, plans, and policies that govern property use and management. Some property management and use requirements were imposed by different funding sources that assisted the SLT with property acquisition. In addition,

¹ Special-status species in California are defined as locally rare, officially listed, or candidates for listing as rare, threatened, or endangered under federal and/or state Endangered Species Acts.



there are some specific plans for the Properties developed through earlier agreements with PG&E that involve habitat enhancement plans for targeted special-status species. Finally, portions of the King Ranch are located within the secondary protection zone for Suisun Marsh as specified in the Suisun Marsh Protection Plan; the ranches have Williamson Act contracts or equivalent status; and prior use plans were formulated through the Tri-City and County Joint Powers Agreement. All of these requirements, plans, and agreements will need to be integrated into the final management goals for each of the acquired properties.

As part of the baseline assessment process, several detailed resource evaluations were conducted which resulted in summaries of physical landscape characteristics, natural resource conditions, infrastructure status, and current ranching practices. Highlights of each of the *IBS* assessment topics are listed below.

Existing physical conditions on the Properties were investigated including on site geology, soil characteristics, and watershed conditions. The Properties are part of the coastal range geomorphic province and contain faults and folds with strong northwest-southeast trends. Rock types include basalt with some serpentinite on the western edge of the Vallejo Swett Ranch, sandstones and other sediments in the middle of the Properties, and younger volcanic rocks on the eastern edge of the King Ranch. Soils on the Properties are relatively shallow. The steep topography and often uniform composition of these soils give rise to overall low slope stability. Landslides have been a common occurrence on the Properties in the past (Figure 6). A major tributary flows from each of the Swett ranches into Sulphur Springs Creek. On the King Ranch several smaller stream complexes flow into the Suisun Marsh. The majority of the streams on the Properties are seasonal, with channels on the Eastern Swett and King Ranches often narrow and deeply incised. In general, the Vallejo Swett stream complex is less incised and features natural pools, springs, and seeps. In addition, perennial and seasonal springs exist throughout the larger area.

A comprehensive biological baseline analysis of the Properties was completed by PG&E and a team of environmental consultants. This natural resource assessment focused on existing and potential habitats for several special-status species as well as a host of more common species. The Properties fall within a federal proposed core recovery area for the California red-legged frog [Unit 15-Jameson Canyon/Lower Napa River]. This core recovery area was identified for its importance as currently occupied habitat with functional source populations and connecting corridors. The California red-legged frog is listed as a federally threatened species and is designated by the state as a species of special concern. Other documented special-status animals include the Callippe silverspot butterfly (federally listed as endangered); the Western



pond turtle (state species of special concern); the Western burrowing owl (state species of special concern); and many other protected raptors, such as golden eagles (state and federally fully protected species), Swainson's hawks (state threatened species), and ferruginous hawks (state species of special concern). The occurrence of the endangered Callippe silverspot butterfly on the Properties is notable because this rare butterfly population is one of only three known remaining populations still present within the greater San Francisco Bay area. Uncommon serpentine and native grassland communities as well as oak woodland corridors also occur, and some of these communities are known to support special-status plant populations such as dwarf soaproot (classified by CNPS as rare or endangered in California and elsewhere), Tiburon buckwheat (on a CNPS review list), Gairdner's yampah (on a CNPS watch list), and streamside daisy (on a CNPS review list). Substantial areas of native bunchgrass and serpentine grasslands exist on the Properties, although non-native plant species have invaded these areas to various degrees. Both of these communities are defined as "sensitive" natural communities by the California Department of Fish and Game (CDFG). During baseline surveys, biologists noted and compiled lists of potential and observed plant and animal species.

Existing infrastructure present on the Properties was evaluated with respect to natural resource enhancement, grazing requirements, and public access goals. Many of the ranch roads require repair, culverts and other drainage structures have collapsed or are clogged, and fencing is in disrepair in some areas. All of these features will need to be repaired or replaced for full use of the Properties. Rangeland management practices and the value of the Properties as open space resources were also reviewed. Specific ongoing activities include cattle grazing, beekeeping, docent-led hikes for bird watching, and model glider flying. The *IBS* also includes descriptions of the surrounding existing and proposed land uses, as well as an assessment of the potential for the surrounding parcels to impact the Properties.

The Properties have historically been managed as cattle rangeland with grazing leases, rather than for past or present natural resource values. Cattle ranching will remain an integral component of future management plans, and this will be addressed further in the SLT's *AMP*. However, the internal infrastructure on the Properties has not been well maintained, so that the necessary components to support rangeland management (fences and gates, stock ponds, main roads and stream crossings) are in poor repair. Given the current somewhat degraded condition of some of the existing infrastructure and the lack of past resource conservation measures on the Properties, threats to natural resources remain despite the fact that the Properties are now protected from further development. Potential conflicts may arise from different management priorities set for the Properties, for example balancing the protection of natural resources with the



development of public access or implementing rangeland management goals while conserving special-status species. Significant opportunities exist to protect documented rare or sensitive natural resources, as well as to enhance these resources and the overall natural resource values of the Properties. Initial Baseline Studies were conducted to not only describe the Properties' natural resources, but to define a baseline condition on which to base future natural resource enhancement measures and mitigation developments. Although the *IBS* includes a review of some of the potential resource threats and management conflicts in Chapter 3, the SLT's *AMP* will revisit and address these topics in order to effectively administer the Properties and implement SLT's property management goals.

