

TOLAY LAKE REGIONAL PARK

BASELINE DOCUMENTATION

Prepared for:

**Sonoma County Agricultural Preservation
& Open Space District**
747 Mendocino Avenue
Santa Rosa, CA 95403

Prepared by:

Circuit Rider Productions, Inc.
9619 Old Redwood Highway
Windsor, CA 95492

June 2006



S O N O M A C O U N T Y

**AGRICULTURAL PRESERVATION
AND OPEN SPACE DISTRICT**

TOLAY LAKE REGIONAL PARK PROPERTY CONSERVATION EASEMENT

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**TOLAY LAKE REGIONAL PARK PROPERTY
CONSERVATION EASEMENT
BASELINE DOCUMENTATION**

Sonoma County Agricultural Preservation and Open Space District

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ACKNOWLEDGEMENT OF CONDITION

The Tolay Lake Regional Park Property (the Property), encompassing about 1,737 acres of land owned by Sonoma County, is located within the Tolay Creek Watershed in the San Pablo Bay Hydrologic Unit in southeastern Sonoma County, between the cities of Petaluma and Sonoma. The Conservation Easement Agreement between Sonoma County and the Sonoma County Agricultural Preservation and Open Space District (the District) was approved by the District Board of Directors on September 27, 2005, Resolution No. 05-0840a.

This document, including the attached photographs and other exhibits and attachments - referenced as Baseline Documentation in Paragraph 12 of the Conservation Easement Deed and Agreement - is an accurate representation of the Tolay Lake Regional Park at the time of the conservation easement grant.

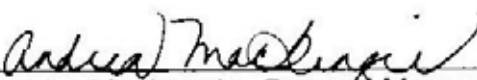
For Sonoma County Regional Parks:



Mary Burns, Director

Date: Sept. 18, 2006

For Sonoma County Agricultural Preservation and Open Space District:



Andrea Mackenzie, General Manager

Date: 9/25/2006

BASELINE SUMMARY

File Number: PP 04-09-02

Property Name: Tolay Lake Regional Park

Property Owner: Sonoma County Regional Parks

Contact Person: Mary Burns, Director

Phone Number: (707) 565-2041

Property Address: 5689 Lakeville Highway, Petaluma, CA 94954-9507

Mailing Address: 2300 County Center Drive, Suite 120 A, Santa Rosa, CA 95403

Easement

Acquisition Date: September 22, 2005

Assessors Parcel Numbers and Acreage:

Tolay Lake Ranch

068-060-057 (portion of)	218 acres ±
068-060-058 (portion of)	100 acres ±
068-070-004 (portion of)	356 acres ±
068-070-005 (portion of)	574 acres ±
068-080-001	<u>490</u> acres ±
Total:	1738 acres±

Zoning:

The Property consists of portions of five separate assessor parcels ranging between approximately 100 acres to approximately 575 acres in size; the parcels are zoned agricultural. Parcel No. 068-060-057 is zoned Land Intensive Agriculture (LIA) and Parcel Nos. 068-060-058, 068-070-004, 068-070-005, and 068-080-001 are zoned Land Extensive Agriculture (LEA). The LIA zoning designation has a 20-acre minimum lot size while the LEA zoning designation has a 1.5-acre minimum lot size. Both designations stipulate one residence per 60 acres; however they allow for “cluster development” into parcels as small as the minimum lot size with the remaining property reserved for agricultural use and no further potential for subdivision (Appraisal Associates 2003). In 1996, fifteen Administrative Certificates of Compliance (ACC) were recognized and recorded on the ranch. The ACCs legally recognize a historical parcel on the Property, thus enhancing the value of the Property and facilitating development (Appraisal Associates 2003). Given the zoning and ACCs, the ranch could potentially be divided into 28 single-family residence development parcels.

Location:

The Property is located north of San Pablo Bay in the Tolay Creek Watershed of the San Pablo Bay Hydrologic Unit in unincorporated southeastern Sonoma County off Lakeville Highway, southeast of the City of Petaluma and southwest of the City of Sonoma. There is direct access to the Property from Cannon Lane, a County maintained road off of Lakeville Highway, and from Spolini Road, off Stage Gulch Road. There is also access from an unpaved road from Lakeville Highway (see *Exhibit 1, Location Map*).

Approvals: Open Space Authority: Expenditure Plan Consistency – April 19, 2005
Resolution # 2005-004

Board of Directors: General Plan Consistency – April 19, 2005
Resolution # 05-0328

Approval of Conservation Easement
Deed and Agreement – September 27, 2005
Resolution # 05-0840

INTRODUCTION

This report documents the physical attributes, land use, improvements and easements, as well as biological and hydrologic features on the 1,737-acre Tolay Lake Regional Park Property (“the Property”), located north of San Pablo Bay in the Tolay Creek watershed southeast of the City of Petaluma and southwest of the City of Sonoma (see *Exhibit 1, Location Map*), relative to the Deed and Agreement conveying a conservation easement to the Sonoma County Agricultural Preservation and Open Space District (“the District”). The District will document changes in property conditions, in particular with regard to the development of the Tolay Lake Regional Park Master Plan, or newly discovered Property features, through semi-annual monitoring reports.

Information for this report was provided by the appraisal report (Appraisal Associates, January 28, 2003), the Feasibility Analysis for the Restoration of Tolay Lake (Ducks Unlimited, Inc., March 2005), the Phase I Environmental Site Assessment (EBA Engineering, February 2004), Hydrologic Feasibility Analysis for the Tolay Lake Ranch Property (Kamman Hydrology & Engineering, Inc., December 2003), and data provided by District staff and site visits by Circuit Rider Productions (CRP) staff members Rob Evans and Kate Reza on September 1, and Rob Evans on September 2, 7, 12, 22, and 29, 2005, and April 18, 2006. Photographs taken during these visits document the physical appearance of the Property. Aerial imagery (2004), developed by Air Photo USA, and Resource Strategies, Inc., was utilized to document large scale land features and for map development.

SUMMARY OF SIGNIFICANCE

About 200 acres in area, Tolay Lake was once the largest natural freshwater lake in Sonoma County. The Tolay Lake Regional Park Property comprises about 20% of the upper watershed of Tolay Creek, including a two-mile stretch of Tolay Creek (Sonoma County 2005a). The Property provides important open space, recreational potential, and scenic viewsheds, and the conservation easement protects the natural resources of the Property. The viewsheds of the Property from hilltops reaching 700 feet above sea level can be spectacular on clear days, giving views of San Pablo Bay, San Francisco, Mt. Tamalpais, Oakland, Mt. Diablo, Mt. St. Helena, and other scenic landscapes. The Property is nationally recognized as an important prehistoric gathering, foraging, and settlement site; it contains many important archaeological resources including charmstones, midden mounds, and burial sites (Archaeological Resource Service 2003).

The Property is “hydrologically and ecologically connected to a large block of protected lands in the historic Sonoma Baylands wetlands” (Sonoma County 2005a). The California Coastal Conservancy recognized the Property as a high priority acquisition, and Tolay Lake is recommended for protection and restoration by the San Francisco Baylands Ecosystem Goals Report (California Coastal Conservancy 2005a). The acquisition was determined consistent with the Sonoma County General Plan (Sonoma

County Permit and Resource Management Department 2004). Thus, the acquisition of the Tolay Lake Regional Park not only meets local conservation, recreation, and educational priorities, but also meets regional goals for Bay Area conservation, recreation, and education, and continental-scale goals by permanently providing refuge for migratory bird species along the Pacific Flyway.

The Tolay Creek watershed drains into the San Pablo Bay, a part of the San Francisco Bay Estuary. The Estuary is the largest on the Pacific Coasts of North and South America and consists of many types of upland and wetland habitats, including tidal flats, tidal marsh, salt ponds, dunes, seasonal wetlands, grasslands, oak woodlands, and riparian forest. The Property also provides important forage and/or nesting habitat for raptors and other birds of prey, passerines, ground nesters and upland game species, in addition to a wide variety of amphibians, reptiles, and mammals. Like much of the Bay Area, rapid development has impacted wildlife habitat and ecological function in the Estuary and surrounding uplands.

CONSERVATION PURPOSE

Paragraph 2 (Statement of Purpose) of the Conservation Easement Deed and Agreement reads:

“The Property comprises 20% of the upper watershed of Tolay Creek, an important watershed that is part of the North San Pablo Bay and drains into the San Pablo Bay National Wildlife Refuge. It is hydrologically and ecologically connected to a large block of protected lands in the historic Sonoma Baylands wetlands stretching from the mouth of Tolay Creek to the Petaluma River. The Property provides important refuge habitat for several species, and particularly for a wide variety of raptors, ground nesters, passerine species, migratory shorebirds and waterfowl . As a key upland parcel in the Sonoma Baylands system, the Property, consisting of wetlands, riparian and upland habitat, open grasslands and a wide valley floor which is bisected by Tolay Creek, has significant restoration potential. In particular, restoration of natural hydrologic function to the ancient Tolay Lake will provide critical structural and functional habitat for numerous wildlife species and plant communities and will benefit species that travel the Pacific Flyway. The Property will also provide low-intensity public outdoor recreation that is compatible with the Conservation Values. The Property's features described above, comprise the natural resource, open space and scenic values of the Property and are generally referred to collectively herein as ‘the Conservation Values’ of the Property. It is the purpose of this Easement to (a) conserve and protect, in perpetuity, the Conservation Values of the Property, (b) to enhance and restore the Conservation Values by specifically permitting the creation of an ecologically viable ecosystem capable of providing wetland habitat for endangered and threatened species, migratory shorebirds, and waterfowl, and (c) to prevent any uses of the Property that would significantly impair or interfere with these Conservation Values. This

purpose, as further defined by the provisions of this Easement, is generally referred to collectively herein as “the Conservation Purpose of this Easement.”

The conservation purpose is in accordance with goals outlined in the 1989 Sonoma County General Plan. Permitted and prohibited uses are specified in Exhibit “B” (Permitted and Restricted Uses of the Property) of the Deed and Agreement.

The Conservation Easement will meet several Natural Resource Objectives of the District Acquisition Plan 2000 including:

- ◆ Natural Resources Objective 3: “Acquire and preserve areas identified as high priority threatened and endangered species locations, including vernal pools and wetlands.”
- ◆ Natural Resources Policy 5b: “Assist local, regional and State agencies in establishing or expanding public parks which preserve Sonoma County’s unique natural habitats.”
- ◆ Recreation Objective 2: “Assist local regional, state and federal agencies and non-profit partners in establishing parks and preserves that protect Sonoma County’s unique natural habitats, scenic areas, and other open space resources of regional importance.”
- ◆ Recreation Policy 2d: “Utilize the District’s Competitive Matching Grant Program to provide grants to cities, the County, and other governmental agencies and non-profit organizations for local open space, public access, and recreation projects (Sonoma County Agricultural Preservation and Open Space District and Sonoma County Regional Parks Department 2005).”

PHYSICAL SETTING AND HYDROLOGY

The Property is located just north of San Pablo Bay. The majority of the Property is within the Tolay Lake basin, situated on a northwest-trending ridge that separates the Petaluma River valley and Sonoma Creek valleys in Sonoma County. The southwestern portion of the Property is located south of the ridgeline, and drains to the Petaluma River. Elevations range from 160 feet on the valley floor to 760 feet above sea level (see *Exhibit 2, Topographic Map*). The Tolay Lake basin is an elevated depression consisting of a volcanic substrate known as Sonoma Volcanics. Permeable locations in this layer yield water for wells, springs and seeps throughout the Property. The natural hydrology of the lake basin was altered in the late 1800s by removing the natural dam and constructing drainage ditches for the purpose of farming the lakebed, which has continued through today.

Historically, the lake was seasonally variable; preliminary analysis showed that the natural drainage divide was located approximately 2820 feet south of the Cardoza ranch and that the lake could have sustained a lake 14 feet deep before spilling over (Kamman Hydrology & Engineering 2003). During most years, Tolay Lake likely functioned as a large seasonal, semi-permanent marsh that existed as a permanent

wetland during years with heavy rainfall. Such a hydrologic regime would have supported emergent vegetation like cattails and bulrush that declined when depths exceeded 4 feet for an extended time period (Ducks Unlimited 2005). The lake was probably an important source of freshwater for human populations (see Land Use and History Section) and wildlife well into the dry summer months. Tolay Lake typically reaches maximum depths of about two to three feet during the winter rains and has been pumped dry during the spring to accommodate farming operations. During the winter, the maximum lake level extends upstream onto neighboring properties.

SOILS

The Tolay Lake basin consists of clay and clay loam soils. The Sonoma County Soil Survey (USDA, Soil Conservation Service, 1972) classifies soils on the Property into five soil map types: Clear Lake Clay Loam (CcA), Diablo Series (DbC, DbD, DbE, and DbF), Goudling Series (GID, GoF), Laniger Loam (LaC, LaD, and LaE2), and Haire Clay Loam (HcC, HcD, and HcE). Detailed descriptions of these soil types are included in Attachment C. Clear Lake Clay Loam usually occurs in flat basin areas and is formed under poorly drained conditions. It has a 3 – 5 foot depth to seasonal high water table, low permeability, high runoff potential and high shrink-swell potential¹. The Diablo series occupies slopes of varying steepness and has a low permeability, high runoff potential, and high shrink-swell potential. The Diablo series has high erosion potential that increases with steepness. The Goulding-Toomes Complex soil consists of clay loam on varying slope with moderate permeability and shrink-swell potential, and medium or high runoff and erosion potential. The Haire Clay Loam soils occupy slopes of varying steepness, have moderate permeability and shrink-swell potential, and high runoff potential (see *Exhibit 3, Soil Type Map*).

Previous land use practices including grazing, ditching, agricultural development, and road development have contributed to erosion and subsequent sedimentation in the watersheds.

GEOLOGY

The Tolay Lake basin depression is located within the Tolay Creek syncline, bordered to the east by steep hills related to the Adobe Creek anticline and to the west by the potentially active Tolay fault. The lake basin contains alluvial deposits formed by the depositional filling of the basin through erosional processes. The substrate underlying and bounding the lakebed consists of Pliocene volcanic flow, ash beds, tuffs, and debris that are collectively known as the Sonoma Volcanics (Kamman Hydrology and Engineering, Inc. 2003). The Sonoma Volcanics Formation is underlain by the Petaluma Formation, which consists predominantly of deposits of clay, shale, and sandstone and can yield significant amounts of water if wells penetrate far enough (EBA 2004).

¹ High shrink-swell potential indicates hazards to the maintenance of structures within or upon the soil.

The California Division of Mines delineates the eastern part of the Property as within the Alquist-Priolo Special Studies Zone for earthquake hazard, a regulatory zone that constrains activities in areas of active faults with a potential for surface fault rupture (EBA 2004). Earthquake fault zones are generally established about 500 feet along both sides of the surface trace of active faults. Any construction work in this area would require a professional Geologic Survey and may require building setbacks from fault traces or other design requirements as determined by a professional engineer (EBA 2004).

CLIMATE

Sonoma County has a Mediterranean climate with typically dry summers and mild, wet winters. The climate near the San Pablo Bay is heavily influenced by the Pacific Ocean and is characterized by mild seasonal temperatures, prevailing west to northwest winds, and frequent heavy fog. Temperatures tend to be more extreme further away from the mitigating effects of the Bay. Local southerly winds may also develop seasonally due to differential heating between Tolay Lake, Sonoma Creek valley, Petaluma River valley, and San Pablo Bay. Median annual precipitation is approximately 22.5 inches, but this amount varies widely with a maximum of 49.8 inches and a minimum of 9.7 inches over the period from 1914 to 1997 (Kamman Hydrology and Engineering, Inc. 2003).

The Property is characterized by nine habitat types including: Annual Grassland, Coastal Oak Woodland, Valley Foothill Riparian, Fresh Emergent Wetland, Wet Meadow, Vineyard, Cropland, Eucalyptus, and Lacustrine (see *Exhibit 4, Vegetation Type Map*). A brief description of the habitat types as well as a list of plants frequently encountered at each habitat type follows. It should be noted that many grasses and forbs could not be identified during the site visits due to seasonal dormancy and recent cattle grazing, and that the distinction of Annual Grassland habitat type and Wet Meadow habitat type on the Vegetation Type Map (Exhibit 4) is not precise. Plant species listed as “invasive exotic” have been designated such by the California Invasive Plant Council (Cal-IPC) and/or The Nature Conservancy (Bossard, et. al. 2000, The Nature Conservancy, 1989). Plant species listed as “noxious” include noxious weeds identified by the California Department of Food and Agriculture (Best, et. al. 1996).

VEGETATION

Annual Grassland

Non-native annual grasses are the dominant vegetation. This habitat type also includes forbs, perennial grasses and an occasional tree or shrub. Due to seasonal dormancy and recent grazing by cattle, most of the annual grasses and forbs could not be identified. Listed below are the species encountered during September field visits that

could be identified.

<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>
wild oat	<i>Avena sp.</i>
medusahead (invasive exotic - noxious)	<i>Taeniatherum caput-medusae</i>
Harding grass (invasive exotic)	<i>Phalaris aquatica</i>
plantain	<i>Plantago sp.</i>
tarweed	<i>Hemizonia sp.</i>
Queen Anne's lace	<i>Daucus carota</i>
mediterranean linseed (invasive exotic)	<i>Bellardia trixago</i>
fiddleleaf dock	<i>Rumex pulcher</i>
yellow starthistle (invasive exotic - noxious)	<i>Centaurea solstitialis</i>
purple starthistle (invasive exotic - noxious)	<i>Centaurea calcitrapa</i>
bull thistle (invasive exotic)	<i>Cirsium vulgare</i>
artichoke thistle (invasive exotic - noxious)	<i>Cynara cardunculus</i>

Coastal Oak Woodland

The Coastal Oak Woodland on the Property occurs on the north-facing slope at the northern most extent of the Property. Coast live oak, is the dominant tree species with California buckeye, California bay-laurel, and madrone as associates. Shrubs occurring in the understory include snowberry, poison oak, and coastal wood fern. There are several stands of California buckeye associated with rock outcrops just south of Tolay Creek near the eastern Property boundary. Listed below are plant species encountered within this habitat type on the Property.

<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>
coast live oak	<i>Quercus agrifolia</i>
California buckeye	<i>Aesculus californica</i>
madrone	<i>Arbutus menziesii</i>
California bay-Laurel	<i>Umbellularia californica</i>
snowberry	<i>Symphoricarpos albus</i>
poison oak	<i>Toxicodendron diversilobum</i>
coastal wood fern	<i>Dryopteris arguta</i>

Valley Foothill Riparian

The Valley Foothill Riparian habitat type within the Property is located along the lower portion of Tolay Creek below the lakebed, and in several of the drainages in the upper elevations of the Property. Willows (*Salix* spp.) are the dominant species of this habitat type on the Property. Listed below are plant species encountered within this habitat type on the Property.

<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>
willow	<i>Salix</i> spp.
California bay-laurel	<i>Umbellularia californica</i>
California buckeye	<i>Aesculus californica</i>
coast live oak	<i>Quercus agrifolia</i>
poison oak	<i>Toxicodendron diversilobum</i>
California wild rose	<i>Rosa californica</i>
coffeeberry	<i>Rhamnus californica</i>
creeping wild rye	<i>Leymus triticoides</i>
Himalayan blackberry (invasive exotic - noxious)	<i>Rubus discolor</i>
Fuller's teasel (invasive exotic)	<i>Dipsacus sativus</i>
poison hemlock (invasive exotic)	<i>Conium maculatum</i>

Lacustrine

The Lacustrine habitat on the Property include the four man-made ponds. Water primrose (*Ludwigia hexapetala*), an invasive exotic, is covering much of the surface of the pond adjacent to the ranch compound to the south. Duckweed (*Lemna* sp.) is covering much of the surface of the pond within the ranch compound. Vegetation in the ponds in the southeastern portion of the Property consists of phytoplankton suspended in water. The surrounding area of the eastern most pond has been impacted by cattle and is dominated by spiny cocklebur (*Xanthium spinosum*). Fresh Emergent Wetland and Valley Foothill Riparian habitat types surround the western pond.

Fresh Emergent Wetland

The Fresh Emergent Wetland habitat type on the Property is located in the lower elevation drainages that have been dredged for agricultural purposes. The presence of a variety of "obligate wetland plants" (OBL) indicates that a continuous and steady source of water is present either above or below ground during all seasons. "Facultative wetland plants" (FACW) also occur abundantly in this habitat. The following is a list of commonly found plants, along with their wetland designation in parentheses.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
rush	<i>Juncus</i> spp. (FACW)
common tule	<i>Scirpus acutus</i> (OBL)
sedge	<i>Carex</i> spp. (OBL)
spikerush	<i>Eleocharis</i> sp. (OBL)
pennyroyal (invasive exotic)	<i>Mentha pulegium</i> (OBL)
Fuller's teasel (invasive exotic)	<i>Dipsacus sativus</i> (no indicator)
cattail	<i>Typha latifolia</i> (OBL)
swamp smartweed (noxious)	<i>Polygonum amphibium</i> var. <i>emersum</i> (OBL)

Wet Meadow

Wet Meadows on the Property are primarily associated with upland springs and seeps, and along upland edges of the Fresh Emergent Wetland habitat, occurring where water is at or near the surface most of the growing season. Wet Meadow soils, although they have little or no standing water, have a slow rate of permeability. Cattle have impacted much of the Wet Meadow habitat type on the Property, dominated by the following plants:

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
rush	<i>Juncus sp.</i>
sedge	<i>Carex sp.</i>
creeping wild rye	<i>Leymus triticoides</i>
spiny cocklebur (invasive exotic)	<i>Xanthium spinosum</i>
Himalayan blackberry (invasive exotic-noxious)	<i>Rubus discolor</i>
pennyroyal (invasive exotic)	<i>Mentha pulegium</i>
Fuller's teasel (invasive exotic)	<i>Dipsacus sativus</i>

Cropland

Croplands are typically established in areas with fertile soils on flat to gently rolling terrain. The Cropland habitat type on the Property consists of ± 150 acres on the Tolay lakebed and approximately 450 to 500 acres of relatively flat area to the east. Vegetables, including pumpkins, are currently being grown in the lakebed. Oats are grown in the area east of the lakebed. Cattle have access to the area following harvest for grazing. The habitat type is regularly disturbed by agricultural activities on the Property, resulting in the establishment of numerous agricultural weeds.

The lakebed is frequently flooded during high winter flows, offering habitat for waterfowl and shorebirds. Swamp smartweed (*Polygonum amphibium* var. *emersum*), designated a noxious weed by the California Department of Food and Agriculture, is widespread throughout the lakebed. It is a native species throughout much of North America and considered desirable in natural areas, providing food and cover for wildlife.

Vineyard

There is a 10-acre vineyard east of the Tolay lakebed supported by wood and wire trellises. The understory is made up of predominantly herbaceous annual non-native plants.

HABITATS AND WILDLIFE

The Property contains the seasonal Tolay Lake, riparian habitat, creeks, springs and seeps, moist grasslands, oak woodland, and annual grassland. Common reptiles and amphibians that may occur on the Property include western toad (*Bufo boreas*), gopher snake (*Pituophis skiltonianus*), western fence lizard (*Sceloporus occidentalis*), western rattlesnake (*Crotalus viridis*), long-nosed snake (*Rhinocheilus lecontei*), and western racer (*Coluber mormon*). Special status herpetofauna that have been observed in the vicinity include California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylei*), California red-legged frog (*Rana aurora draytonii*), and western pond turtle (*Clemmys marmorata*). California red-legged frog and western pond turtle have been identified on the Property (California Coastal Conservancy 2005b). Mammals that potentially occur on the Property include bats, black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Western gray squirrel (*Sciurus griseus*), rodents, coyote (*Canis latrans*), and black-tailed deer (*Odocoileus hemionus*) (California Department of Fish and Game 2002). The Property also provides habitat for many types of birds including egrets, raptors – such as Northern Harrier (*Circus cyaneus*) and White Tailed Kite (*Elanus leucurus*) - rails, ducks, and songbirds – including Tricolored Blackbird (*Agelaius tricolor*). In winter, the lake provides refuge for migratory waterfowl. Special status bird species likely to occur on the Property include Golden Eagle (*Aquila chrysaetos*), Great Blue Heron (*Ardea herodias*) (protected when nesting), Cooper's Hawk (*Accipiter cooperii*), Sharp-shinned Hawk (*Accipiter striatus*), and Burrowing Owl (*Athene cunicularia*) (Ducks Unlimited 2005, California Coastal Conservancy 2005B).

IMPROVEMENTS

Improvements on the Property consist of several residences, barns and associated out buildings, a gasoline pump, a system of unpaved roads, several bridges, perimeter and interior fences, and developed springs and wells. There is also a system of culverts and ditches throughout the lake basin for drainage and irrigation and an on-site quarry within the Marvin and Rita Cardoza ownership provides gravel for road maintenance and repairs within the Property. The drainage ditches flow into Tolay Creek, which drains into the San Pablo Bay.

Exhibit 7, Property Improvements Table provides a list of improved structures on the Property and their estimated size and locations are depicted in Exhibit 6, Baseline Site Map: Feature Locations. The family members' houses are located in the residential compound. The granary, tractor barn, hay barn, old shop, storage shed, new shop, slaughter house, wine cellar, and new hay barn are also located in the compound area (see Exhibit 5, Baseline Site Map: Photo Locations, Exhibit 6, Baseline Site Map: Feature Locations, and Exhibit 11 Property Photographs). The Cardoza Barn is on the hill above the ranch compound. The Farm Stand is used for retail sales during the fall pumpkin season and also houses a small museum that describes the history of the Property and contains Native American artifacts collected onsite.

ROADS

Cannon Lane off Lakeville Highway and Spolini Road off Stage Gulch Road provide primary and secondary access to the Property. Cannon Lane is a paved, County maintained road. It dead-ends at the Property line where a gravel road to the residential compound begins. There is a deeded easement from the end of Cannon Lane to the Marvin and Rita Cardoza Property. There are also three right-of-way access routes to the Property: 1) Cardoza Lane through Pegasus Ranch to the west, which connects to Lakeville Highway; 2) southeast from the ranch compound along the western ridgetop through Roche Winery property, which connects to Highway 121; and 3) from Marvin and Rita Cardoza's portion of the Property in a northerly direction through the adjacent vineyard, which connects to Stage Gulch Road (Appraisal Associates 2003). The Cardoza Ranch road is the historic entrance to the ranch, which was lined with eucalyptus trees that are still present. There is also a system of private roads throughout the Property that range from maintained gravel roads in good condition to rangeland dirt roads. There is a causeway extending from the residential compound across Tolay Lake that connects the eastern and western portions of the ranch.

EASEMENTS AND AGREEMENTS

The Property is subject to various easements and agreements. The Property contains several typical utility and ingress/egress easements. PG & E holds an easement for a high-tension power line and service access roads. Right-of-way and other easements are described in detail in the Deed and Agreement (Sonoma County 2005a). None of the easements or any other agreements grant entities other than the owner prescriptive rights.

The Cardozas, the previous owners of the Property, executed a one-year residential back lease of the Property and a six-month back lease to wrap up farming operations (*see Attachment D, Lease Agreement*). Agricultural use of the Property is permitted "in accordance with the Tolay Lake Park Management Plan and at a level that is consistent with the Conservation Purpose of this easement, subject to approval by the District, Wildlife Conservation Board and State Coastal Conservancy" (Sonoma County 2005a).

The Cardozas submitted an application to the State Water Resources Control Board in 1996 to obtain water rights for 1100 acre-feet of water. This application is still pending. To obtain water rights for Tolay Lake restoration and management, several steps must be taken, the first of which is preparation of a petition to change the existing application to use for restoration of the lake. The costs of processing the water rights application are estimated at \$250,000 (Sonoma County Agricultural Preservation and Open Space District and Sonoma County Regional Parks Department 2005). There are a number of additional water rights permits and pending applications belonging to other property owners within the Tolay Lake basin watershed. The upstream diversions will impact

water flow, and thus restoration efforts, in the Tolay Lake basin. However, sufficient water supply exists for Tolay Lake restoration (Kamman Hydrologic and Engineering, Inc. 2003). It should be noted that the State Water Resources Control Board has not approved the Kanman water availability study (Kamman Hydrologic and Engineering, Inc. 2003), and other studies using State Water Resources Control Board protocol will be necessary to determine the water availability for lake restoration.

A stipulation of the funding from the Wildlife Conservation Board and California Department of Fish and Game (DFG) requires that a purpose of the Management Plan for the Property will be to restore Tolay Lake to a seasonal, shallow lake for the benefit of wildlife with only wildlife-compatible recreational uses allowed. To this end, Ducks Unlimited (2005) has prepared a feasibility analysis for the restoration of the lake to guide management decisions for the restoration of the lake. The analysis provides nine alternative scenarios for lake restoration and concludes that restoration within the Tolay Lake Basin is feasible and should be pursued. Working with upstream property owners to allow seasonal flooding, and incorporation of public education and recreation opportunities is recommended for the design stage of the restoration planning.

Stipulation of funding from the California Coastal Conservancy include the following immediate and permanent dedications after transfer of fee title: 1) that the 317.62 acre parcel of the Property currently owned by Rita and Marvin Cardoza shall be “dedicated for habitat preservation, open space protection and public access;” 2) a public access easement over a ridge trail corridor extending the length of the Property; 3) a conservation easement over the entire Tolay Creek riparian corridor from lakebed to Property boundary; and 4) a conservation easement to be offered to the California Department of Fish and Game over the Tolay Lake lakebed. Additional conditions of the funds include 1) a sign acknowledging Conservancy funding is to be erected and maintained on the Property; and 2) immediately upon repayment of the loan from the County of Sonoma, the remainder of the Property will be dedicated for habitat preservation, open space protection, and public access (California Coastal Commission 2005b). Upon acquisition, the Sonoma County Agricultural Preservation and Open Space District will begin to repay the loan from Sonoma County and will transfer fee ownership of the Property to Sonoma County Regional Parks.

LAND USE AND HISTORY

The Tolay Lake basin has been in use by humans for thousands of years. The earliest inhabitants were the Wappo, who are thought to have settled the Sonoma County region about 11 – 12,000 years ago. The Wappo were replaced by the Pomo about 9,000 years ago, and more recently, since about 3,500 years ago, the Coast Miwok utilized the basin area. The Miwok culture utilized wetland areas and expanded more rapidly than the earlier groups (Archeological Resource Services 2003). In 1860, Tolay Lake was mapped as an area of freshwater marsh about two miles long and one quarter mile wide, but other maps and renditions show different configurations, indicating that the lake’s size was variable (Ducks Unlimited 2005).

Tolay Lake is also known as “Charmstone Lake” due to the large number of prehistoric artifacts recovered from the lakebed after it was drained for farming in the 1870s. The Tolay lakebed is considered one of the most prolific locations where charmstones are found in the United States. The charmstones are carved rock objects thought to have served ceremonial and/or practical purposes. The stones may have been used to induce favorable fishing and hunting in various ceremonial activities, they may have been used in slingshots to hunt waterfowl, or they may have served as fishing weights or lures. The presence of thousands of charmstones, three prehistoric village sites, numerous middens and other prehistoric sites indicate short- and long-term occupation of the Tolay Lake basin by humans for at least the past 5000 years (Archaeological Resource Services 2003).

In 1996, a total of 20 prehistoric sites were recorded within Tolay Valley. The plethora of sites, many of which are in relatively undisturbed condition and some of which contain human remains, constitute an area which without a doubt “would qualify for listing on the National Register of Historic Places” (Archaeological Resource Services 2003 p. 7). Archaeological Resource Services (2003) recommends nomination of the Tolay Lake Ranch Property to the National Register of Historic places as a district. “A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development” (Archaeological Resource Services 2003 p. 12).

The Property is also significant historically. It has been occupied and used for agricultural practices by Mexicans and Americans since the early to mid 1800s. It was likely originally a part of the Petaluma Rancho, which at its largest covered 66,000 acres between Petaluma River and Sonoma Creek from the edge of the Bay northward to about where Glen Ellen is located today (EBA Engineering 2004). The rancho began to be divided into smaller holdings in the mid 1860s. The parcel containing the Property was subdivided in the 1860s and was initially over 10,000 acres. At this time it was called the Fair Ranch, and Tolay Lake was drained for farming operations sometime in the late 1800s. The parcel containing the Property was sold twice, and during that time, further subdivided, prior to purchase by the Cardoza family in the 1940s.

The Cardozas have operated the Property as a farm and ranch after obtaining ownership in the early 1940s. The Cardozas held yearly public gatherings at the granary in the compound and the pumpkin patch during October to celebrate Halloween. The Cardozas have recently used the property for agricultural purposes including grazing and crop propagation. Row crops, including pumpkin, are cultivated in the former lakebed, and a 10-acre vineyard is located within Marvin and Rita Cardoza’s ownership along the north end of Parcel 068-060-057. Most of the upland areas are rangeland; cattle acquire water from any of several developed wells, seeps, springs, creeks, or one of the two upland ponds located on the eastern portion of the Property.

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