

**HISTORICAL ECOLOGY
OF THE
SUSCOL CREEK WATERSHED**

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Figure 1
Watershed with hillshade

HISTORICAL ECOLOGY OF THE SUSCOL CREEK WATERSHED

Preliminary DRAFT REPORT

Introduction

Historical ecology is an emerging science which utilizes careful analysis of a wide range of sources to understand the processes and changes to the local landscape through time. Although the focus is on the past, historical ecology provides valuable insight into both the current trajectory of the ecosystem and critical information about the historic processes and components needed for restoration. By studying our local history, we can better understand how and why the landscape has changed and determine a practical framework for restoring impaired or damaged ecosystems. It is hoped that this work will provide a useful foundation for future stewardship projects within and adjoining the Suscol Creek Watershed.

Methods

Historical data for this report was collected from a number of local and regional archives. Important sources include historical texts and early accounts; General Land Office Township and Range data collected from the BLM in Sacramento; research compiled by the Napa Historical Society; Northwest Information Center (Sonoma State University) archeological reports; reports from several ethnographers; documents including Mexican Land Grant Court Cases in the archives of the Bancroft Library at U.C. Berkeley; U.S. Coast Survey maps, aerial photographs from the early 1940's; interviews with long-time residents, and other fragments gleaned from a variety of additional sources. This historical information is analyzed for reliability and accuracy, and carefully compared to present day information. Painstaking analysis of a wide range of community resources builds a reliable and trusted picture of the past that can serve as "common ground" (Grossinger, 2001).

Results and Discussion

Suscol Watershed Settlement History

Native People

The Suscol area was inhabited by, and named after a tribelet of Patwin, or Southern Wintun people. These Penutian-speaking people also lived in the Sacramento Valley west of the Sacramento River up to Shasta, in Lake County Valleys, and along Cache and Putah Creeks. The Patwin were skilled fishermen, using long spears and nets to harvest anadromous fish during spawning season. They made canoes by binding together dry tules with grapevine (Knutdson). The Patwin hunted using snares, bow and arrow, driving animals into nets, and catching birds with nets and waterfowl with decoys and nets. They also kept dogs and trained them to hunt. They gathered native grass seeds, young clover, sunflower seeds, manzanita berries for mush or cider, seasonal berries, and acorns, which were a staple. It is likely that they influenced the landscape with selective harvest of plants, hunting of game and seasonal burning.

A map of archeological sites in Napa County shows five villages and one occupation along Suscol Creek. A permanent village site was located near the north bank of Suscol Creek, west of Highway 29. This area was an important crossroads for people traveling from the east to the

coast and up and down the Napa Valley. An Indian trail ran from Suscol up the east side of the Napa Valley to Calistoga. Trails also converged at Suscol from the south and from the east following Suscol Creek.

D. T. Davis describes a curious feature along the Suscol Creek Trail:

"On the trail that leads from Soscol up the creek and over the mountains towards Wild Horse Valley, there is a very interesting place. About a mile and one half up the creek from the Soscol Bridge there is, on the north bank of the creek, a small but well defined Indian mound. A bluff stands back about 25 feet from the creek, and dug partly into this bluff is a pit shaped something like a fireplace without a chimney. It is about five feet square and is lined with Basalt rocks and is open from the front side, that is, the side next to the Indian Mound. In some way a terrific heat has been generated in the bottom of this pit. It had been so hot that it has glazed the rocks and in places has caused small stalagmites to rise from them. When I first saw the pit, there were quite a number of these stalagmites that stood from three to eight inches high, but visitors have taken them until now they are all gone."

"The interesting question that arises about this place is, 'what do the Indians use it for?' No ordinary fire would generate the heat required to produce the effects on the rocks. The geologists that have seen the place or heard my description of it seem to think that at one time there has been a natural gas jet at that spot, and it was probably held sacred by the Indians that had charge of it."

A population estimate for the Patwin people in this area before European contact is difficult to ascertain because of several factors. Some early accounts wildly overestimated populations, while others likely placed figures much too low (see the table below for regional estimates by various sources). Other difficulties with population estimates include frequent failure by Hispanic and Anglo pioneers to distinguish between Wappo and Patwin people; natives were identified instead by rancheria or lumped in a general 'Indian' category. Later censuses were likely inaccurate due to relocation and emigration of remaining Native people, Native people being unwilling to identify themselves for fear of further disruption, and Census asking the wrong questions or failing to recognize tribes. By all estimations, there was a steep decline in Native populations at the time of advancing European settlement. This was due to relocation, wars, massacre, loss of land and resources to white settlers, and most of all, to rampant disease brought by white settlers, for which Native Americans had no immunity.

Indian population estimates, pre 1830:

Author & year of est.	Estimate	Region/People
Yount (Clark)	8,000	Napa Valley
SF Cook	4,500	Napa Valley
Vallejo	40,000	Suisunes (Patwin)
Menefee 1873	2,000	Suscol to Oakville
Milliken 1978	3-4,200	Napa Valley
Beard 1979	1650	Valley above Napa (Wappo)

With the founding of the Sonoma Mission in 1824, the Franciscans urged the Patwin to relocate to the mission. An epidemic in 1833-34, now thought to have been a form of malaria brought to

the Bay Area by Hudson Bay Company trappers, (Dillon, *Napa Valley Natives*, p. 94) and cholera, influenza, smallpox and measles epidemics in ensuing years decimated Native American populations throughout the Napa area. By 1835, the Suscol village was vacant. Native Americans continued to be used as servants, ranch hands and seasonal farm help. Newspaper reporter F. Leach reported, "In the summertime, or when harvest was on, hundreds of Indians from the north would come to Napa and camp with their families about the town." In 1885, the Napa Daily Register estimated that 1,000 Indian cowboys and farm hands were working at Suscol in 1860. In 1924, Kroeber projected the entire Patwin population in California to be only between 22-150 individuals, and none of these remained in the Napa Valley.

Battle of Suscol

In the late 1830's, (1838 – D. Gardner, 1835 – Smith and Elliott, 1840 – Camp) General Vallejo and his troops, George Yount, Chief Solano and several hundred Native American allies fought a bloody battle at Suscol against a large group (the numbers vary by source: 700 – Smith and Elliot, 1000 – Camp) of invading Native Americans from the central valley. After the battle, the soldiers lassoed the Native American dead and dragged them to a mass grave in a tidewater creek ravine formed by Suscol Creek. Some of their remains were unearthed by the Thompsons when they were planting their orchards in the 1850's.

Californios

Mission San Francisco de Solano was founded in 1823 in Sonoma in an effort to extend Mexico's control of the region and discourage expansion of Russian influence from Bodega and Ross. In 1833, the missions were secularized, providing for the transfer of land to Mexican (primarily) settlers. The 1820's to the 1850's marked a pastoral period with grazing, sometimes intensively, the primary land use. In 1835, General Mariano G. Vallejo was awarded *Rancho Nacional Soscol* by the Mexican government. The grant encompassed roughly 50,000 acres from Suscol Creek at its northern border, south along the Napa River through Mare Island and east through Benicia. Here he raised horses and cattle for the Mexican government, and reportedly initially intended to found a town near Suscol Creek. General Vallejo grazed 5,000 head of cattle and 2-3,000 horses here in 1839 to supply the Mexican troops (Davis, 1929: p. 31-32).

European settlement and agriculture

Following the war with Mexico, the United States Congress established the Board of Land Commissioners, by virtue of "An Act to Ascertain and Settle Private Land Claims in the State of California" in order to establish the rights of Mexicans to land title within the conquered territories (Perez, 1982). Each land grant case had to be tried separately, and it took anywhere from several to many years before these cases were resolved in the courts. This was an expensive process, and many grant holders ended up having to sell off portions of their land to pay for lawyers, surveyors and court fees. Initially, the assumption was that the grants would be confirmed, and lands continued to be bought and sold. General Mariano Vallejo's claim to Suscol Rancho lands was not accepted by U.S., and the boundaries were never officially determined. With rumors that Vallejo's title to the land was invalid, squatters took up residence on the land, and bloody fighting between squatters and those who had purchased land from Vallejo ensued (Ketteringham).

In 1850, (before the General's claim was rejected) Vallejo gave 320 acres along the northern end of his Rancho Soscol to William Thompson in payment for lumber for California's first State House; erected in Vallejo at General Vallejo's expense (D. Gardner). Two years later, William Thompson was joined by his brother, Simpson, who purchased an additional 300 adjoining acres from M.G. Vallejo. This land included tule-covered tidelands of the Napa River. He proceeded to confine the waters of Suscol Creek and planted orchards in the reclaimed land. This land was surveyed in 1857 (see Figure 2).

The orchards were very successful, and were the first in the State to be grown without irrigation. In 1878, the Soscol Ranch contained 225 acres of orchard, vineyard and garden; 250 acres of grain, and 300 acres of grazing land which had previously been tule and tidelands of the Napa River. The following excerpts from Smith and Elliott's *Illustrations of Napa County California with Historical Sketch*, 1878, describe Simpson Thompson's Soscol Orchards (see Figure 3):

"Mr. Thompson found the place in a state of nature."

"Soscol Creek, which is now confined within artificial bounds and empties into the river, in 1852 spread over a wide area, converting it into a morass. This is now reclaimed and constitutes the richest portion of the Soscol orchards."

"Mr. Thompson's Soscol Orchards are probably as good models as any in the State of California. He has thousands of trees of the finest varieties of fruits, which produce enormously, and yield immense profits."

"The location of this farm was in the earliest times a noted point in California. Even in their rude and uncultivated condition, the premises were remarkable for their beauty of landscape; and the Mexican and wild Indian held in high esteem its loveliness of appearance and convenience of location."

In late October of 1861, William H. Brewer, principle assistant with the Whitney Geological Survey of California, spent several nights camped on the banks of Suscol Creek near Suscol House while surveying the area. He kept a diary of his travels and calls Suscol Creek "a pretty brook". He spoke of the myriads of wild geese in the area, "their numbers incredible". In his accounts, he also lamented the clouds of dust that engulfed travelers on the roads between Benicia and 'Sebastopol' (Yountville).

In 1868 there were 30,000 grape vines at Suscol (Cronise). After 1876, the Suscol vineyards were abandoned because they produced a lower quality of grape than those from nearby hillsides or up valley. (Ketteringham citing McKee) The tidal areas became pasturage for cattle and hogs, while hillsides were covered with vineyards and orchards. (Ketteringham citing Bancroft)

Figure 2
1857 Survey of Simpson Thompson and William Thompson's lands

Figure 3
Lithograph of Thompson's Soscol Orchards

Suscol as a transportation hub:

For a long time, Suscol served as an important crossroads. An Indian trail ran from Suscol up the east side of the Napa Valley to Calistoga. According to D. T. Davis, it followed the foothills because in the winter the valley was very wet making travel by foot difficult. This trail was used by the first settlers as well, and the Silverado Trail now follows much of this trail. Trails also converged at Suscol from the south and from the east following Suscol Creek. The first improved county road was built between Vallejo and Napa in 1851-52, crossing Suscol Creek near the former site of the Patwin village (Suscol).

In 1852, a ferry was established at the river, about a mile west of Suscol to carry stagecoaches across the river. According to Lyman Palmer (1881), "In an early day the crossing at Soscol was an important place, and a ferry then did big business." Suscol was the furthest point up the river where large boats could land at low tide. Steamers stopped at the Suscol ferry to transfer passengers and cargo for stage connections. One notably large steamer "Amelia", a 147 foot side-wheeler with a registered tonnage of 386, ran from San Francisco to Suscol from 1865 to 1868 (Swett and Aitken).

A road from Petaluma and Sonoma came to the west bank of the Napa River, utilized the ferry crossing, and then ran east through Thompson's orchards to the County road. In 1855, Elijah True built "Soscol House" near the junction of the County road and "Old Ferry Road" to serve as an inn. The Thompson brothers constructed a wharf in 1858 on the east side of the Napa River, extending from the Suscol ferry crossing south 500 feet (Palmer). In 1860, there were 800 people living in Suscol. (Ketteringham, p.107) In 1865, the Napa Valley Railroad ran its first train between Napa City and the Suscol ferry. By 1867, the community consisted of a postmaster, a stage barn, a blacksmith shop, the train station, inn, Soscol orchards, and the wharf. The Napa Valley Railroad was extended south to Napa Junction and down to Vallejo in 1869. From that time on, transportation became increasingly efficient, and there was less and less traffic stopping at Suscol to make connections. The community at Suscol began to diminish.

Agriculture and grazing

Following the brief, but intensive pastoral period of about 1820-50, the Napa Valley saw a huge growth in population. With the rapid growth of "Western" populations came changes to the landscape including stream alterations, water diversions, wells, tilling, orchards, vineyards, grazing, timber harvest, fencing, eradication of native herds of Tule elk and grizzly bear, and introduction of invasive species, to name but a few.

Changes came both subtly and dramatically, and choices of land management and farming techniques employed had wide ranging impacts. While camped at Suscol Creek in October of 1861, surveyor William H. Brewer wrote: "The swamps bordering all the rivers, bays, or lakes, are covered with a tall rush, ten or twelve feet high, called 'tule' (tu'-lee), which dries up where it joins arable land. On the plain below camp, fire was in the tules and in the stubble grounds at several places every night, and in the night air the sight was most grand - great sheets of flame, extending over acres, now a broad lurid sheet, then a line of fire sweeping across stubble fields." In an interview in 1994, longtime farmer Walter Carvelli (85 years old in 1994) reported: "Used to be that farmers wouldn't turn the stubble back into the ground right away. We used to put cattle out there after the oats were harvested. In the fall these geese would come in, thousands of them, and feed in those fields."

Figure 4
U. S. Coast Survey T777 Survey from 1858

Recent landuse changes

Between 1966 and 1968, Napa Sanitation bought 338 acres along the Napa River south of Suscol Creek and built water treatment ponds. Cattle grazing continued along the upper reaches of Suscol Creek and along the lower reaches on Marie Somky's Ranch. In 1978 a sewage treatment plant was built at the Napa Sanitation facility, and in the 1980's, they purchased additional land along the south side of the lowest portion of Suscol Creek for a wastewater and bio-solid disposal area. The last 50 years in the Napa Valley have been a time of transition from cattle grazing, orchards and grain crops to vineyards. In the late 1990's, former grazing land in the middle of Suscol Creek watershed was converted to vineyard.

Original Stream Network and Vegetation

The earliest general survey of the area is the U.S. Coast Survey (T777) completed in 1858 (see figure 4). This meticulous map shows marsh along the Napa River, grasslands and oaks north of the creek, and the 'Suscol Orchards' of Simpson Thompson. Unfortunately, this map only charts the land as far east as the present day Highway 29/121, and it was completed after Suscol Creek had been put into a channel. According to Smith and Elliott's *Illustrations of Napa County California with Historical Sketch*, 1878, Suscol Creek originally spread over a wide area forming a morass. When Simpson Thompson bought the land in 1852, he confined the creek within artificial bounds and planted orchards in the reclaimed land. Further analysis is necessary to determine the original stream network over the lowest reaches of Suscol Creek prior to artificial confinement.

Other early surveys offer limited descriptions of portions of the Suscol Creek watershed. (See attachments.) William and Simpson Thompson's lands were surveyed in February of 1851 by Nathaniel L. Squibb (refer back to figure 2). The lower portion of Suscol Creek forms the southern border of the Tulocay Rancho, and several early surveys were made of this rancho including the *Plat of the Tulocay Rancho* by C. C. Tracy, April 1859. Early GLO surveys of portions of the Suscol area were made in 1862 and 1863. Diseño maps for "Tulocay" No. 45 ND Cayetano Juarez, Claimant, and "Rancho de Napa" No. 433 ND John Finnell, Claimant offer rough sketches of the Suscol Creek area.

The land along the Napa River is described in early surveys as 'swamp and overflowed lands', salt marsh, and tule. A clump of willows is mentioned along the lower course of Suscol Creek in the early surveys west of Highway 29. According to early maps and survey notes, bordering the riparian zone was grassland, with scattered oaks. The hills were composed of grassland, chaparral, and oak woodland. Some vernal pool areas occurred along meandering drainages and on flats (Ruygt, unpublished records).

Figure 5
Present-Day Vegetation Map

Changes to stream and vegetation

With the exception of the confinement into an artificial course of the lowest reaches of Suscol Creek by Thompson in the early 1850's, the creek appears to largely follow its original course. Two dams have been placed on the creek: one approx. 600 feet above the Hwy 29 Bridge and a second approximately 200 feet upstream of the first. (CDFG, 1973) The Napa Sanitation now operates a water treatment facility on the land south of the lowest portion of Suscol Creek.

The earliest aerial photos available for the area were taken in 1940-42. These early aerials offer a useful tool for measuring change when compared with present day aerials. Examples of these comparisons are provided in Figures 6-8. In the 1940's the land use for much of the watershed was primarily grazing, with agricultural fields located between Hwy 29 and the Napa River. Grazing continued in the hills and along the marshland bordering the Napa River south of Suscol Creek into the 1980's. Comparisons between the 1940 and 2002 aerials indicate that the vegetation along the creek bed is largely unchanged during that time period.

Salmonid history

Early accounts refer to an abundant supply of anadromous fish. The U.S. Fish and Wildlife Service estimated (1968) that the Napa River system historically supported 6-8,000 steelhead and 2-4,000 coho salmon. There is speculation that Chinook salmon were also present. By the late 1960's the coho were gone from the watershed and the steelhead populations were greatly diminished.

A Department of Fish and Game report from 1962 lists Suscol Creek as a spawning and nursery area with a year-round flow in the upper half. The entire length of Suscol Creek was surveyed on foot on May 8 and 9, 1973 by CDFG Seasonal Aid Robert Reynolds. He observed steelhead rainbow trout populations to be 25-200 fish per hundred feet of stream throughout, with lengths ranging from 1-8 inches. The numbers were higher in the upper reaches. Other fish Reynolds recorded in the creek include 400 Venus roach per 100 feet of stream in the middle section, and stickleback and sculpin at 500 fish/100 feet each in the lower section only. (CDFG files) Interestingly, in a survey by B. Finlayson and J. Nelson (also from the CDFG) the following month on June 27, 1973 from the Hwy. 29 Bridge to 1500 feet upstream, no salmonids were noticed.

Figure 6.
Aerial Comparison: 1940/2002 lower Suscol

Figure 7.
Aerial Comparison: 1940/2002 middle Suscol

Figure 3.
Aerial Comparison: 1940/2002 Upper Suscol

Conclusion

Suscol Creek watershed is ecologically important and has an interesting history. The watershed has experienced many of the changes to the Napa Valley over the past 200 years, moving from Native land management, to a brief but intensive pastoral period, to western agriculture, and finally vineyard. The most detailed maps are snapshots into periods in time, and offer clues about what the landscape was like before European intervention. The 1940 aerials also provide useful tools for understanding change. It is important to realize when pouring over these, that many significant impacts had already taken place. For instance, what was the impact of tan oak harvest for the tanneries during the mid to late 1800's? How many valley oaks fell for firewood during the gold rush? What was the impact of heavy grazing during the pastoral period of the mission and rancho days? What was the population of the Patwin village at Suscol, and how did their patterns of land use (seasonal burning, selective harvest, etc.) shape the area? What was the course of Suscol Creek before it was channelized? How has groundwater pumping in the area affected the local hydrology? Was there mining in the area, and if so what were the impacts?

Further work remains to be done to attain a complete picture of the historical ecology of the Suscol Creek watershed. Additional analysis should be undertaken to fill information gaps. This study would benefit from further assessment of the impacts of historic land uses and Native land management. A complete GIS map should be created to make the information more readily accessible.

Suscol Creek Watershed Historical Ecology Report

Timeline

- pre-1830** Patwin (Southern Wintu) people inhabit Suscol area. Village site by Suscol Creek near highway 29
- 1835** General M. G. Vallejo was awarded Rancho National Soscol by the Mexican government as compensation for past services.
- Circa**
1840 Battle of Suscol: General Vallejo, troops and “friendly” Native people fought against Native tribes from the central valley. Numbers vary by account. Native dead are buried in mass grave at tidewater ravine
- 1841** 18 month drought (Ruygt)
- 1845** 1000 Native Americans staying at Soscol rancheria (Wallace, 1901)
- 1848** "Treaty of Guadalupe Hildalgo."
- 1849-** Gold rush brings influx of new settlers to California
- 1850** William Thompson given 320 acres of Rancho Soscol by General M. G. Vallejo in payment for lumber for California’s first State House (erected in Vallejo at the General’s expense.)
- 1851** United States Congress established the Board of Land Commissioners, by virtue of "An Act to Ascertain and Settle Private Land Claims in the State of California. It was several to many years before these land grant cases were resolved in the courts: General Mariano Vallejo’s claim to Suscol Rancho lands was not accepted by U.S.
- 1851-2** first improved county road built between Vallejo and Napa went past Suscol
- 1852** Simpson Thompson joined his brother and purchased 300 additional acres from Vallejo – including tule-covered tidelands of the Napa River. Simpson Thompson was the first permanent Anglo settler in Suscol. (David Gardner) He artificially confined the waters of Suscol Creek and planted the reclaimed land to orchards.
- 1852** Ferry established at Suscol to carry stage coaches across the river
- 1855** Soscol House built by Elijah True at the junction of the County road and Old Ferry Road for use as an inn.
- 1858** U. S. Coast Survey completed from San Pablo Bay to Napa
- 1858** Thompson brothers constructed a wharf at the Suscol ferry crossing.

- 1860** 800 people live in Suscol (Ketteringham, p.107) *note: I have not yet found records to support this figure, though several sources place the number of Native People at Soscol rancheria around 1,000 in 1845 (Wallace) and 1860 (Napa Daily Register, 1885)*
- 1861** In October, William H. Brewer camped by a “pretty brook” near Suscol Ferry while surveying the area with the Whitney Geological Survey. He noted myriads of wild geese, tules and stubble fields burning, and severe dust along the roads.
- 1863-5** low rainfall (Ketteringham, p. 97)
- 1865** Napa Valley Railroad ran its first train between Napa City and Suscol ferry.
- 1865** Steamer “Amelia”, a 147 foot long side-wheeler carried passengers from San Francisco to Suscol, where stage connections for Sonoma, Sacramento and Lake County could be made and smaller steamers took passengers to Napa.
- 1868** 30,000 vines at Suscol (Cronise)
- 1870** Napa Valley Railroad connection completed from Soscol Landing to Adelante (Napa Junction)
- 1876** Approximately eight landholders are listed on the 1876 Official Map of Napa County for the Suscol Creek watershed.
- 1876** After 1876 the Suscol vineyards were abandoned: lower quality of grape than produced on nearby hillsides or up valley. (Ketteringham, McKee) The tidal areas became pasturage for cattle and hogs, while hillsides were covered with vineyards and orchards. (Ketteringham, Bancroft)
- 1895** Approximately six landholders are shown for the Suscol Creek watershed on the 1895 Official Map of Napa County.
- Circa 1800** “Somky” house built on ranch that is now Napa Sanitation land
- 1966-68** Napa Sanitation bought 338 acres south of Suscol Creek and built water treatment ponds
- 1970’s** cattle grazing along lower reaches of Suscol Creek: Marie Somky’s Ranch
- 1978** treatment plant built at Napa Sanitation facility
- 1980’s** Napa Sanitation purchased additional land along lowest portion of Suscol Creek to Napa River for a wastewater and bio-solid disposal

Suscol Creek Historical Ecology Project

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