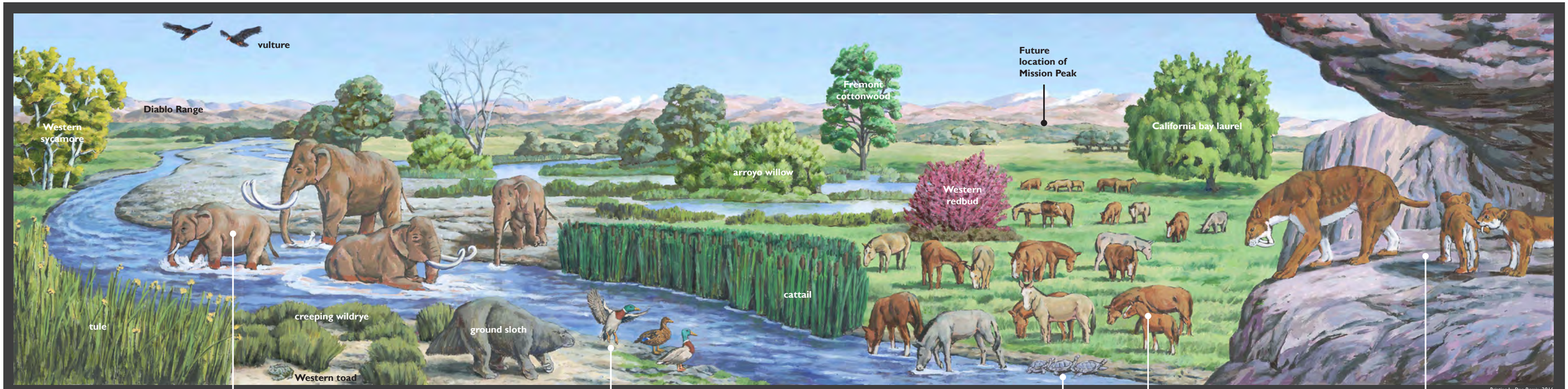
Appendix 6.1a: East View

Interpretive Signs 1a



Painting by Don Ramie, 2016

Columbian mammoth fossilized skeleton

The Columbian mammoth was the largest land mammal to live in North America during the Irvingtonian Age, standing around 13 feet tall and weighing about ten tons. A tusk found in this area was 13 feet long! These mammoths ranged from what is now the central United States all the way to South America.

About half of the animals living in the Irvingtonian landscape are present today, including the Western pond turtle, mallard duck, and many others.

Many of the large land mammals of the Irvingtonian continued into the late Pleistocene, but went extinct by 6,000 years ago, due to climate change and human predation. Some species, like the raccoon, and red fox, surive to this day. Though the environment was wetter, landscape features and plant communities would be very familiar, resembling the vegetation you see along Sabercat Creek.

Przewalski's horse, the last true wild horse, is related to the Pleistocene epoch's horses

The Western horse was a large, stout grassland grazer. It was the largest of the prehistoric horses that originated in North America, and was similar in size to a zebra. These horses lived in herds, as wild and feral horses do today.

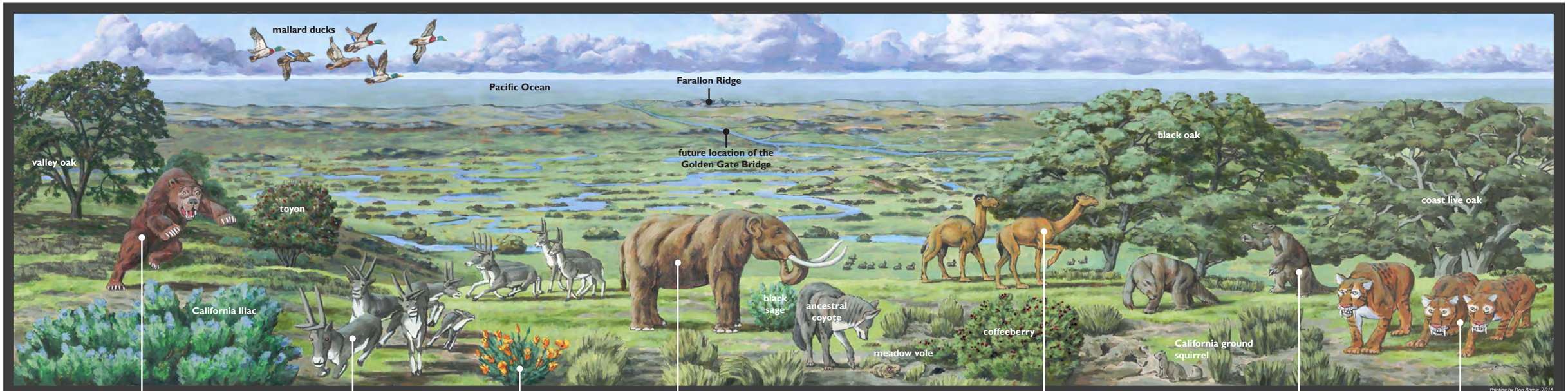
Skull of *Smilodon fatalis* from the La Brea Tar Pits

Saber-toothed cats of the genus *Smilodon* are distant relatives of today's wild and domestic cats. These massive carnivores had front canines as long as seven inches, and preyed on large herbivores. *Smilodon fatalis* is California's state fossil.

East View

Appendix 6.1b: West View

Interpretive Sign 1b



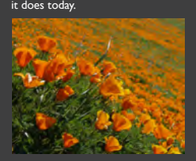
Painting by Don Ramie, 2016

reconstruction of a short-faced bear

The giant short-faced bears were the strongest, largest, and fastest of North American bears. Their wide snouts appear short relative to their massive heads compared to bears familiar today.

A new spieces of pronghorn was discovered at this site. These herbivores traveled in herds, much like today's pronghorns.

California poppy, our state flower, bloomed across the South Bay landscape in the Pleistocene, as it does today.



American mastodons, similar in build to Asian elephants, were distantly related to mammoths and today's elephants. They primarily lived in forests, browsing on trees and shrubs.

skull of a juvenile mastadon

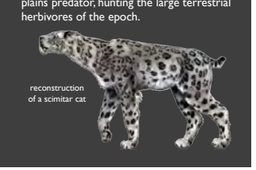
Sea level during the last glacial period was about 400 feet lower than it is today. Ice sheets and glaciers held more of the Earth's water, and cooler oceans contracted, taking up less space. As a result, California's coastline extended all the way to what are now the Farallon Islands! San Francisco Bay was an inland tule marsh full of wildlife.

Camels once roamed western North America. The one found here is named *Camelops*. It is not certain if *Camelops* had a hump like modern camels, or lacked one, like its modern llama relatives.

Ground sloth skeleton cast

Ground sloths found in this area were much larger than the sloths alive today, six to ten feet long and weighing up to a thousand pounds. Flat rear feet, stout tail, and well-developed front claws allowed it to rear up on its back feet to feed on tree leaves.

The scimitar cat, *Homotherium serum*, is a smaller saber-toothed cat than *Smilodon fatalis*, with shorter, serrated canine teeth. It was a fast, athletic open plains predator, hunting the large terrestrial herbivores of the epoch.



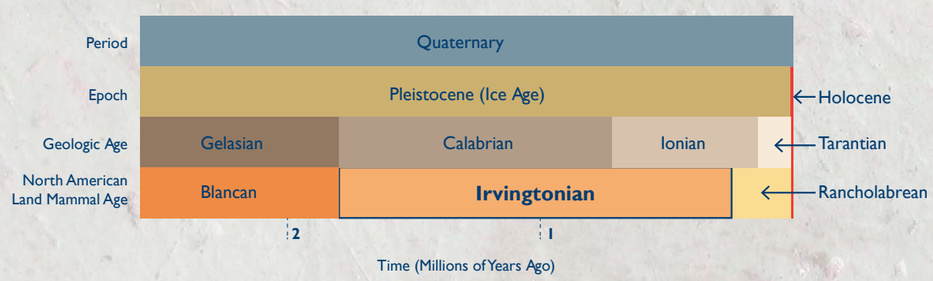
reconstruction of a scimitar cat

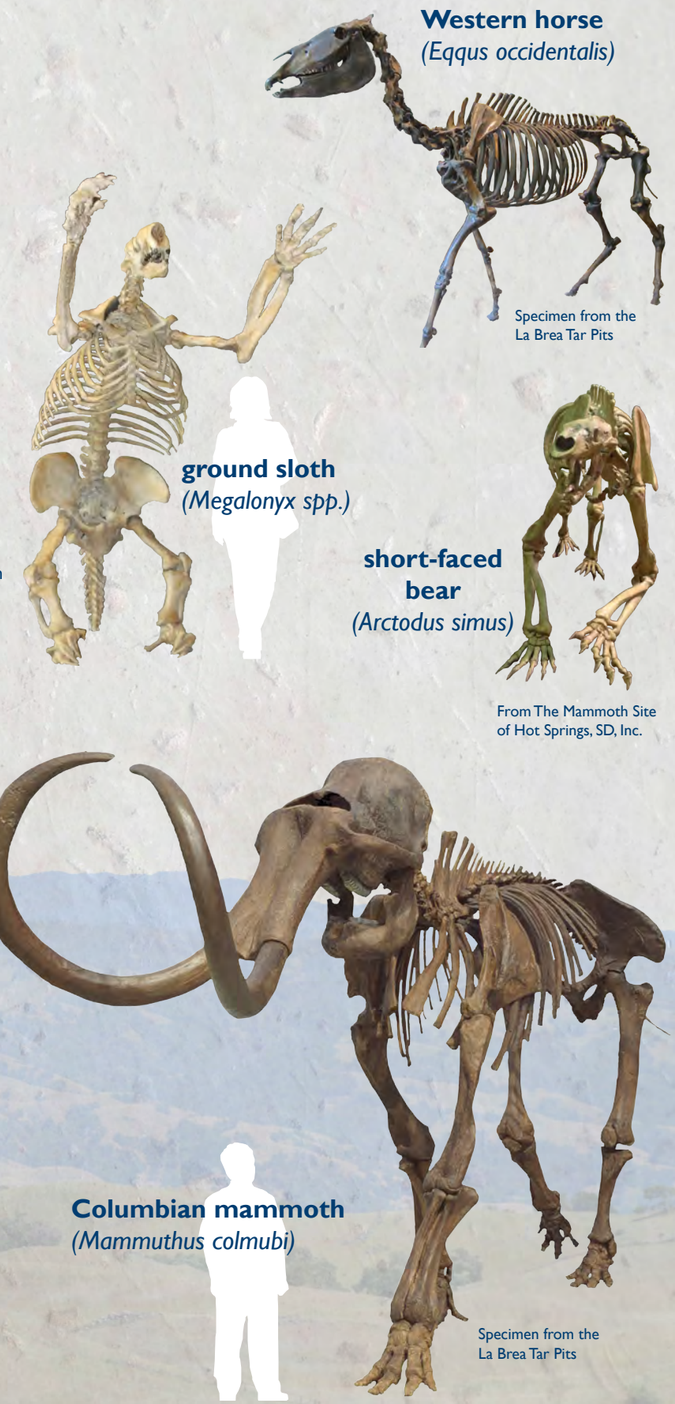
West View

Land Mammals of the Irvingtonian Age

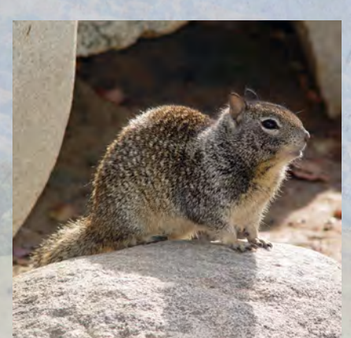
Thousands of fossils, mostly dating from 1,800,000 to 240,000 years ago, were excavated in what is now Sabercat Historical Park and nearby locations. Because of this remarkable discovery, that time period is described as the "Irvingtonian North American Land Mammal Age," after Fremont's Irvington District. Very few complete skeletons were found. The skeletons shown to the right are from other North American sites, but illustrate species that were found here.

Geologic Timescale





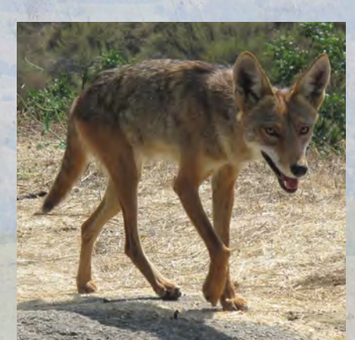
These familiar faces are Irvingtonian mammals, too! Many animals survive nearly unchanged from their Ice Age ancestors, including ground squirrells, raccoons, opossums, and coyotes. Though it sounds like the distant past, on the geologic timescale the Irvingtonian Era is recent history--the dinosaurs had been extinct for 63 million years, and the continents were arranged the same as they are today.



California ground squirrell

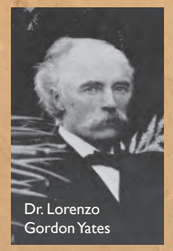
raccoon

opossum

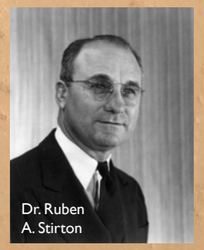


coyote

In Search of Fossils

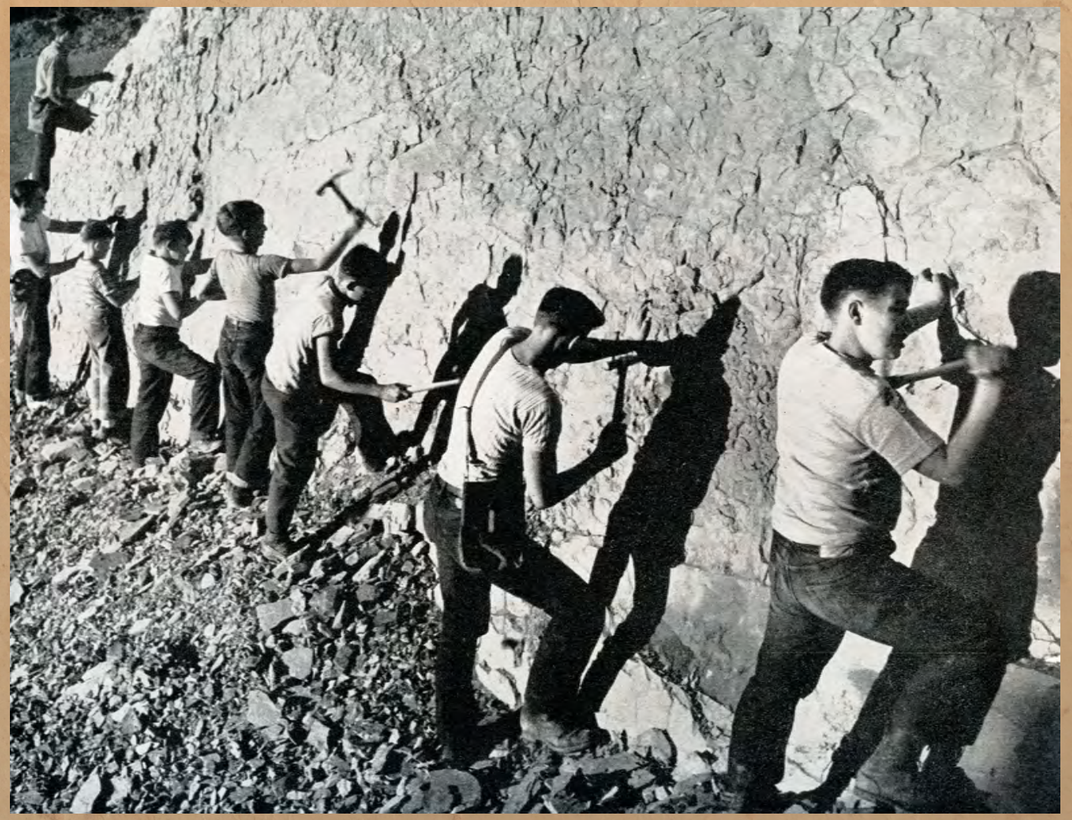

Dr. Lorenzo Gordon Yates

After a large earthquake in 1868 on the Hayward Fault, Dr. Lorenzo Gordon Yates, a dentist, discovered fossils on what is now Osgood Road in the Irvington District. Many were identified as extinct Pleistocene horses, camelids, and mammoths. In 1871, he excavated a tusk and jaw of a mastadon that was the most complete jaw discovered in California at the time.


Dr. Ruben A. Stirton

In 1936, a young paleontologist from the University of California, Berkeley, Ruben A. Stirton, began excavations in the Irvington gravel pits after a fossilized horse jaw was found there. He and his colleagues realized that the site probably contained early Pleistocene fossils, and found an antelope new to science. Later in his career, Stirton mentored Donald E. Savage. Savage went on to define the Irvingtonian North American Land Mammal Age in 1951.


The "Boy Paleontologists" excavating fossils at Bell Quarry, led by Wesley Gordon (center).

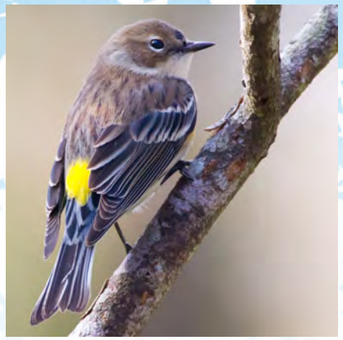

The "Boy Paleontologists" excavating fossils at Bell Quarry.

The "Boy Paleontologists," a group of boys from Hayward, excavated fossils in the Bell Quarry from1943 to1959. Led by Wesley Gordon, the boys unearthed about 150,000 fossils from 58 different species. The contribution of the Boy Paleontologists marked the beginning of an ongoing relationship between the local community and researchers that continues to this day, and helped preserve Sabercat Canyon as a park.

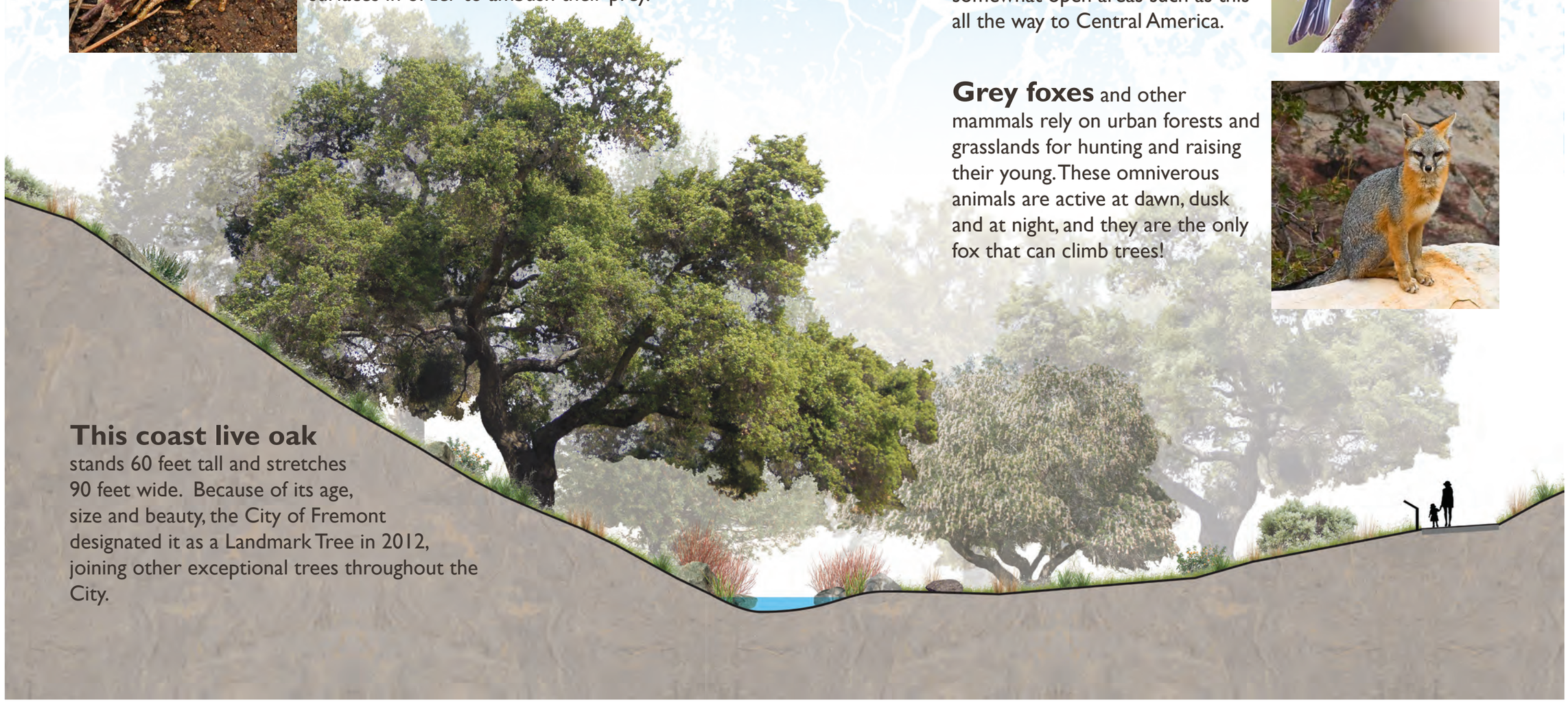
Under the Canopy

Amphibians, reptiles and fishes, including tree frogs, rely on shade and habitat created by oaks, buckeyes, willows, and other riparian trees. Tree frogs sometimes eat insects and spiders as large as they are. The toe pads of these remarkable animals allow them to climb vertical surfaces in order to ambush their prey.

Migratory birds depend on the broad canopies of coast live oaks for shelter, including the versatile yellow-rumped warbler. These birds spend winter in streamside woodlands and other somewhat open areas such as this all the way to Central America.

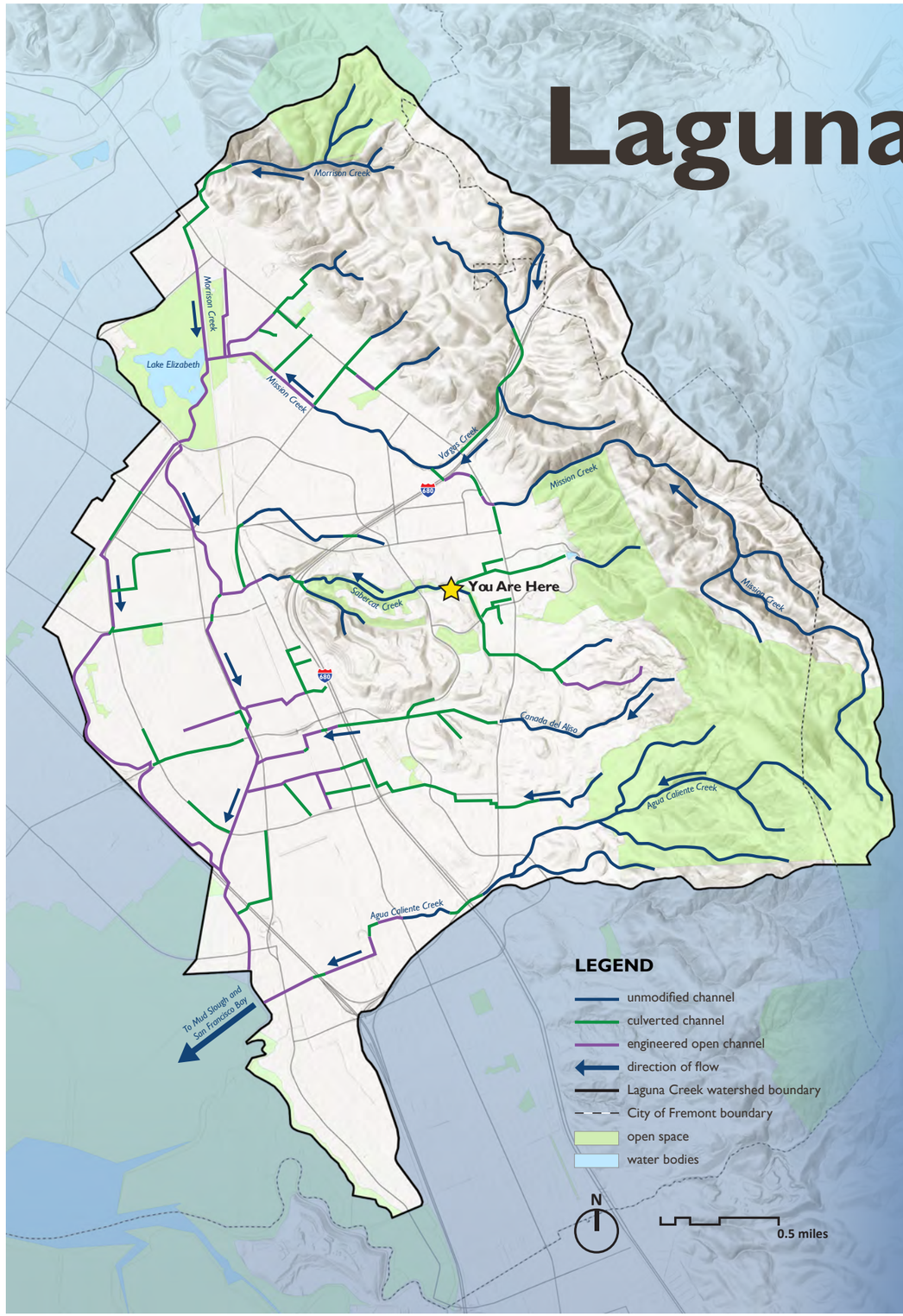


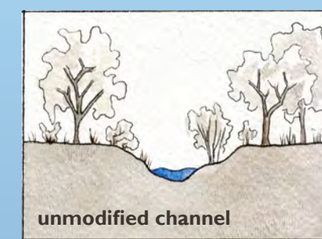
Grey foxes and other mammals rely on urban forests and grasslands for hunting and raising their young. These omniverous animals are active at dawn, dusk and at night, and they are the only fox that can climb trees!

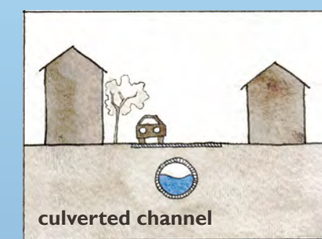


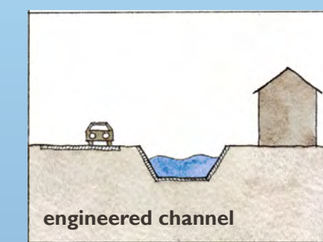
This coast live oak stands 60 feet tall and stretches 90 feet wide. Because of its age, size and beauty, the City of Fremont designated it as a Landmark Tree in 2012, joining other exceptional trees throughout the City.

Laguna Creek Watershed



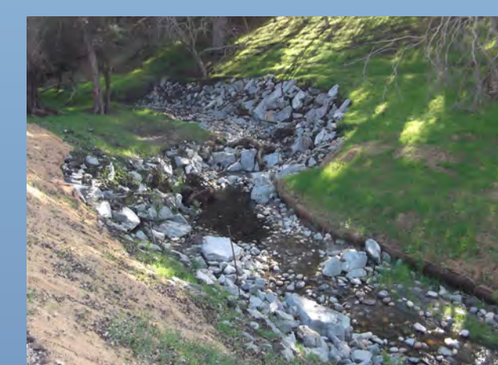






Sabercat Creek is one of several streams within the 25-square-mile Laguna Creek watershed that drain the foothills of the Diablo Range. As these creeks flow across flatter, lower ground in urban Fremont, they travel from natural, open channels to underground culverts and concrete lined engineered channels. Finally, they flow to Mud Slough on the way to San Francisco Bay.

Sabercat Creek showing significant bank erosion and undercutting, reducing habitat value.



Sabercat Creek, immediately after channel stabilization and replanting, providing better habitat and reduced hazards. New plantings grow over time.

Urbanization and other landscape changes have taken their toll on the health of Sabercat Creek, causing erosion and bank failure that is bad for the creek and wildlife. Ongoing restoration continues to improve channel stability, water quality and habitat.

Plants of Sabercat

poison oak
Toxicodendron diversilobium

Poison oak has green or red glossy, lobed leaves in groups of three. It can look like a shrub, groundcover, or vine. Avoid touching poison oak! All parts of this plant, including bare twigs, contain an oil that can cause mild to severe itchy blisters. The oils can also be transported on dogs, tools and clothes.

coast live oak
Quercus agrifolia

This evergreen oak thrives in California's coastal woodlands and hills from Mendocino County south to Baja California. These trees can live for 250 years, forming characteristic picturesque branching as they age.

Plants thrive in the riparian area, coastal sage scrub, and oak woodland along Sabercat Creek. See if you can recognize some of these native plants as you explore the park.

toyon
Heteromeles arbutifolia

This evergreen shrub is native to the California coast and Sierra foothills. In the spring, large clumps of white flowers bloom, followed by red berries in the summer.

California buckeye
Aesculus californica

California buckeye thrives near streams and moist forests. It has spikes of attractive white flowers in spring. Large, drooping seeds that stay on its branches long after it has lost its leaves later in the summer.

arroyo willow
Salix lasiolepis

Arroyo willows grow at the margins of stream banks and wetlands, and often have many stems. Their agressive roots help hold soil and reduce erosion, and the thick vegetation provides habitat for animals. In the spring, this plant has soft, fuzzy flowers.

California blackberry
Rubus ursinus

This trailing vine is a wild plant related to blackberries cultivated for food. California blackberry's small fruits are edible and delicious, enjoyed by humans and animals alike. It has leaflets in groups of three, and small, almost soft prickles. Don't confuse it with Himalayan blackberry, a common nonnative plant with large, robust canes, sharp, large prickles and leaflets in groups of five.

common snowberry
Symphoricarpus albus

Snowberry is a deciduous shrub that thrives in the forest edge and understory, providing cover and food for many animals. Native Americans used the bright white berries to make soap. Do not eat the berries--they are poisonous!

blue elderberry
Sambucus nigra

Blue elderberry is a large shrub or small tree with arching branches, and abundant clusters of white flowers followed by blue berries. The berries are edible once cooked, and can be made into jam or wine. Elderberries are an important source of nectar and food for pollinators and wildlife.

Gathering and Cooking Acorns

Alson and Tuibun Ohlones called the place now known as the Fremont Plain home for countless generations. They managed the landscape in a way that increased the numbers and health of the plants and animals on which they relied for food, shelter, clothes, ceremonial regalia, containers, tools, games, toys, and more. Spanish, Mexican, and American settlement in the area, beginning in 1797 at the village of Oroysom (now Mission San Jose), brought tremendous disruption, suffering, and change to Ohlones. Despite this history, today's Ohlones are proud to keep their cultures and cultural values alive while living as modern Americans. They advocate for the preservation of ancestral cultural and sacred sites, as well as the environment.

by Beverly Ortiz, East Bay Regional Parks District

Four generations of Ohlones reminisce about the fifth generation. From left to right, from great-grandmother to great-granddaughter: Ruth Orta holding a photograph of her mother Trina Marine Ruano; Ramona Garibay; Rita Rodriguez; Athina Rodriguez.

Groves of oak trees, like the one you are standing in, provided abundant harvests. Before gathering acorns, Ohlones conducted ceremonies and offered prayers of thanks.

Mature, healthy acorns are cracked open

Winnowing in a Western Mono-style basket to remove the red skin

Pounding acorns with a mortar and pestle to turn them into flour

Sifting to separate the fine from the coarse flour

Leaching flour to remove tannic acids, resulting in a light, nutty flavor

River-rounded volcanic rocks are heated in a fire, rinsed of ash, and lowered into flour and water mixture

The rocks are slowly stirred in a pre-soaked cooking basket that doesn't burn

Images of Ramona Garibay making acorn soup taken by Beverly Ortiz, East Bay Regional Parks District.

Making acorn soup: Ramona Garibay (Jalquin/Saclan Ohlone/Bay Miwok) (above) demonstrates how to make acorn soup the old way, using stone tools and baskets.

"Winery Road"

The first vineyards in the East Bay were planted at Mission San Jose in the late 18th century, tended by Spanish missionaries and Native Americans. Around 1850, after the Mission was secularized, landowners expanded vineyards and began commercial winery operations. By 1893, Washington Township boasted more than 50 wineries and vineyards.

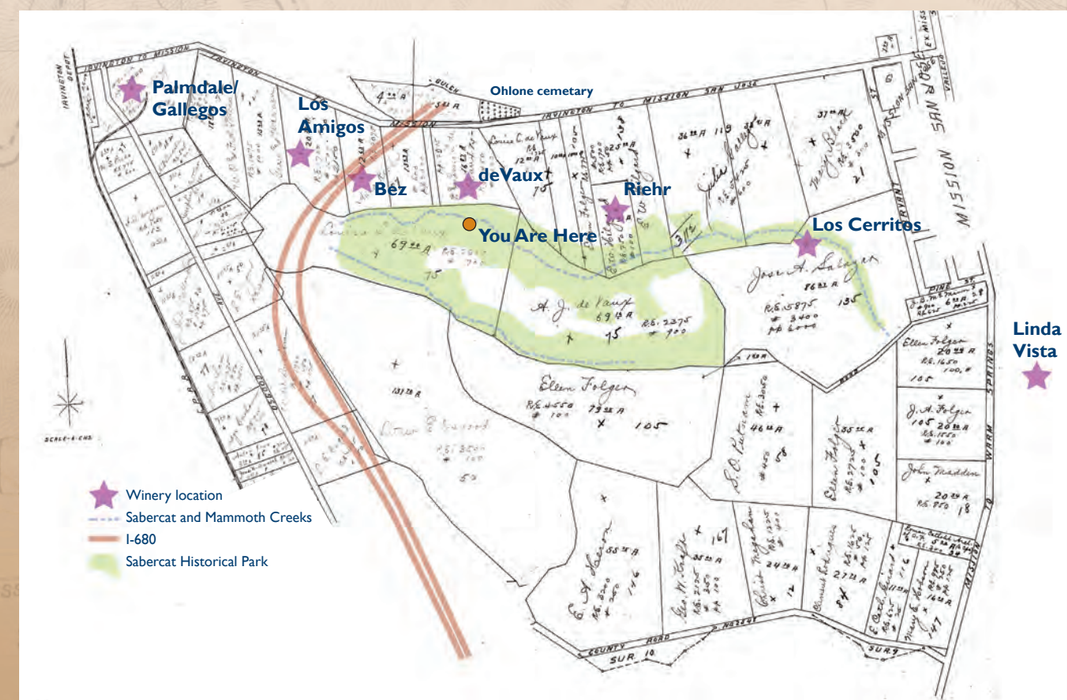
Hills and valleys in all directions were covered with vineyards, and Washington Boulevard became known as "Winery Road." One 1898 observer claimed that, "[t]here is no more important vineyard district in California, all things considered, than that which lies around the old Mission San Jose."

The 1888 Los Amigos winery was operated by Mr. and Mrs. Edward Werner and Edward Grau

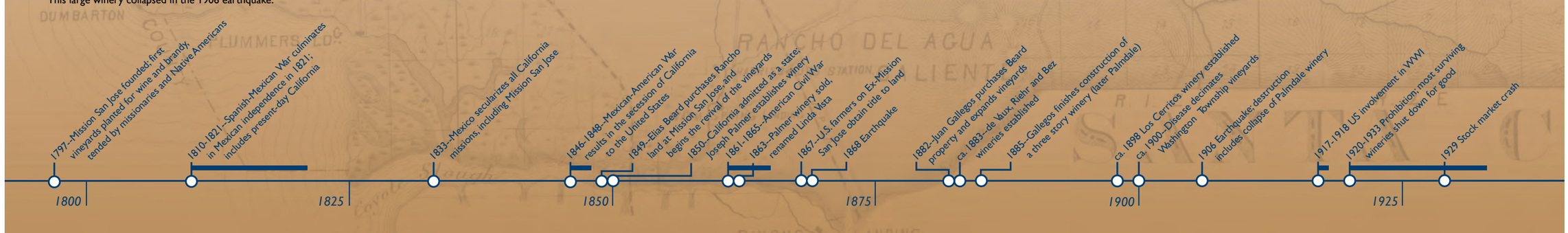
Off loading must (freshly squeezed wine grapes) at the third floor level, rear of the Gallegos winery, located at what is now Washington Blvd. and Osgood Rd. This large winery collapsed in the 1906 earthquake.

Early success did not last. Already compromised by *Phylloxera* (an insect disease) and the earthquake of 1906, most of the wineries were shuttered for good by Prohibition. Orchards, vegetable farms and dairies replaced vineyards.

The building foundation in front of you is the ruin of Paul and Louise de Vaux's wine storage building. The de Vaux vineyard was the fifth largest in Washington Township at the turn of the 19th century. Much of this property is now Sabercat Historical Park.



This Alameda County Assessor's map from 1902 shows the owners of winery and vineyard properties along Washington Blvd. Not drawn to scale. Approximate locations shown for I-680, Sabercat Historical Park and creeks, for orientation.



The Hirsch Dairy Barn

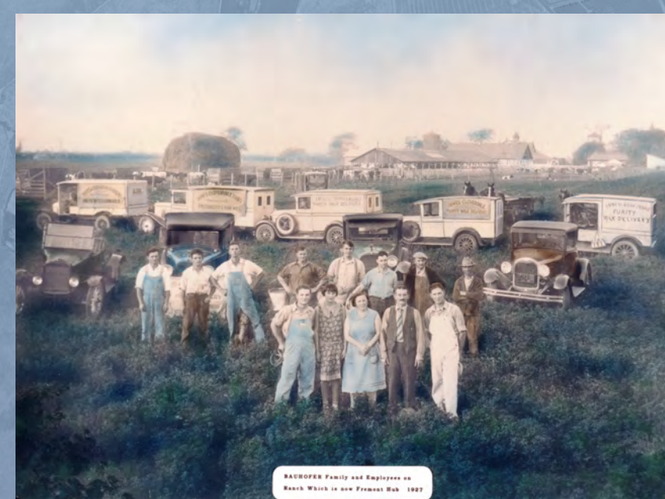
The dairy barn on the Hirsch property, likely built in the 1920s.

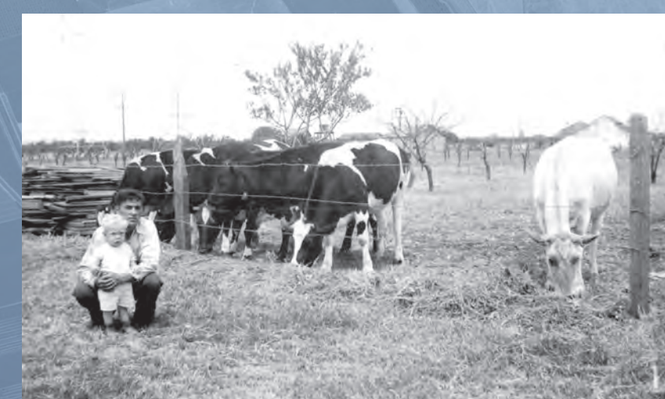
1946 aerial photograph of Washington Township (USGS). The fields with trees in a grid pattern are orchards, and the other fields were mostly pastures and produce farms.

When Paul and Louise deVaux sold their vineyard and winery in 1918 (shortly before Prohibition went into effect), a large part of it was purchased by Otto Hirsch, a locally prominent businessman. He leased the property to dairy farmers for over thirty years, and planted an apricot orchard. Farmers built a dairy barn and milk separator in this location in the 1920s. The barn stood here until 2013.

Otto Hirsch standing in his apricot orchard, on the same property as the dairy barn, just off Washington Blvd.

Dairies, vegetable farms and orchards were abundant across Washington Township in the first half of the 20th century. There were nearly forty thriving dairies in the 1920s, including the one that stood here.





Milkers on the Cloverdale-Innes Dairy, 1927, now the Fremont Hub (left); Frank Inderbitzen Sr. and Jr. on their small diary on Osgood Road, circa 1957, with cows and apricot trees (above). Both of these nearby dairies were similar to the Hirsch Dairy.

Exploring Regional Connections

Sabercat Historical Park is just the beginning. From here, you can easily explore deep into the Diablo Range wilderness and recreational areas. Enjoy wildlife, historic sites, flowers, breathtaking views, hiking, camping, swimming and much more.

Appendix 6.11:
Upright Main Entry Sign

Appendix 6.12:
Upright Minor Entry Sign

SABERCAT HISTORICAL PARK

BECADO DRIVE ENTRANCE

CITY OF Fremont

Appendix 6.13:
Temporary Creek Restoration Signs