



Quarry Park Master Plan *DRAFT* Atlas



in association with
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NV5 | Timothy C. Best | Tom Origer & Associates

1. Introduction

A. VISION AND GOALS

The City of Saratoga's Master Plan for Quarry Park will guide the implementation of a new community open space resource. The following vision statement will guide the development of the Master Plan:

The historical Saratoga Quarry Park is a portal to the past and a gateway to the Santa Cruz Mountains. Quarry Park provides opportunities to explore, play, educate, and experience the outdoors to benefit the visitor's physical health and spirit.

In accordance with the vision, the following project goals have been established and will be referenced throughout the planning process to ensure they are incorporated into the final Master Plan:

1. Keep open space in public ownership.

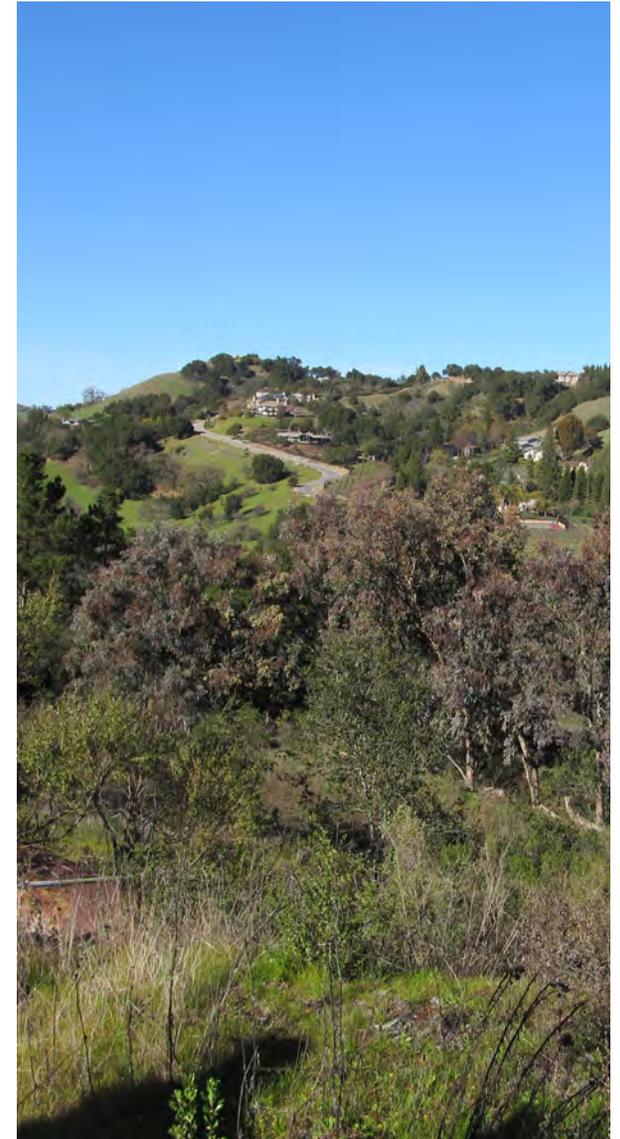
While the property has been in public ownership since the 1920s, it has been closed off to the public. Transforming the site into a park provides community members access to the land they own. Considering the adjacent land is privately owned, it is important to maintain this property in public ownership to ensure that everyone has the opportunity to access and enjoy this hillside landscape for many years to come.

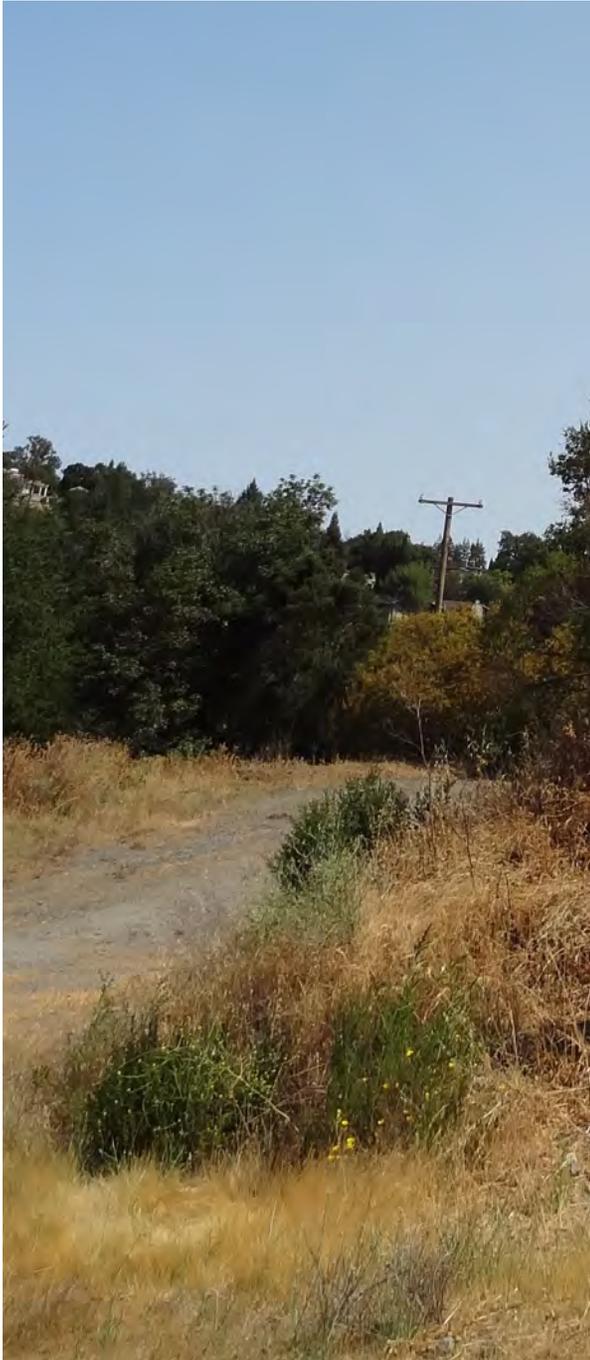
2. Use open space to protect viewsheds and natural resources.

Since the quarry closed in the 1960s, re-established vegetation and constructed benches have created wildlife habitat in this formerly barren site. The site's steep slopes provide numerous viewsheds, which offer enjoyable destination opportunities for the public. Restricting development by designating the site as open space protects valuable habitat and viewsheds.

3. Use open space for recreation.

The open space designation enables the property to be used for low-impact recreational activities, including picnicking, hiking, biking, and other forms of recreation. Encouraging these activities on-site provides the public with opportunities that improve public health through exercise and restorative therapy.





4. Enhance connectivity to neighboring communities and open spaces. Connecting the site to neighboring communities and open spaces, particularly with multi-purpose trails, improves multi-modal access and enables the site to be part of a greater open space system. This will result in more frequent and sustainable use of a new community amenity.

5. Maintain natural vegetation to improve habitat diversity and combat climate change. Vegetation absorbs carbon dioxide, reduces air temperature and provides habitat for numerous species. Preserving existing vegetation, especially native species, will be an important contribution to enhancing the site's habitats and offsetting the negative effects of climate change.

6. Connect Saratoga to the Skyline-to-the-Sea Trail. For many years, there has been a goal to connect the city to the existing Skyline-to-the-Sea trail, which begins at the ridge of the Santa Cruz Mountains and terminates at the Pacific Ocean. Because the Project Site sits between the City of Saratoga and the Santa Cruz Mountains, a future Saratoga-to-the-Sea Trail would connect through the property. The design of this trail section and how it extends through adjacent properties, both down to the city and up to the ridge, will be an essential element of the Master Plan.

7. Improve public health through air and water quality, recreational opportunities, and connection to nature. A low-impact recreational park provides the public with opportunities that improve public health through exercise and restorative therapy. Maintaining vegetation and hydrological systems on-site will improve air and water quality, which is also beneficial for public health.

B. SITE CONTEXT

1. Location

The Project Site is perched on 64 acres of land between the Santa Cruz Mountains and San Jose Valley, along Saratoga Creek. The creek originates up in the mountains and continues down to meet the southern tip of the San Francisco Bay (Figure 1). Located in the City of Saratoga within Santa Clara County, the Project Site sits two miles west of the downtown Saratoga Village along Big Basin Way (Highway 9). The Project Site is bordered on the north by

Highway 9, on the east and south by single-family parcels, and on the west by the San Jose Water Company. Officially named the Congress Springs Quarry Properties, the Project Site is comprised of two adjacent parcels (Figure 2).

2. History

This section summarizes the site's history, from early Native American activities and the settlement of Saratoga up to the recent acquisition and rezoning of the property. Information was gathered from a memo compiled by Tom Origer & Associates (Appendix A), as well as from additional sources and recent interviews conducted with Saratoga residents.

a. The Ohlone Past

Human civilization in California dates back to 12,000 years ago. When Europeans came to settle in this region, it was occupied by the Ohlone Native Americans. These hunter-gatherers traveled seasonally along Saratoga Creek and reportedly had a base camp just downstream of the Project Site, approximately where the creek intersects with 5th Street Extension.¹ However, any Ohlone trails that traversed the Project Site have likely been eradicated by quarrying activities.

b. The Settlement of Saratoga

The City of Saratoga, California began with William Campbell's sawmill in 1848.² In the 1850s, the mill was leased to Martin McCarty, who built the toll road connecting to Santa Clara Valley. Shortly after the sawmill was founded, a mineral springs was discovered by Jud Caldwell just east of the present-day city.

The area was officially named Saratoga in 1865 because the spring's chemical content was almost identical to Congress Springs in Saratoga Springs, New York, which was home to a popular resort. This resort inspired the California version, Pacific Congress Springs Resort, which was built a half-mile from the Caldwell's springs, 1 mile west of present-day City of Saratoga. Water from the springs was served in the hotel dining room, but also bottled and shipped around western United States in the late 19th Century.

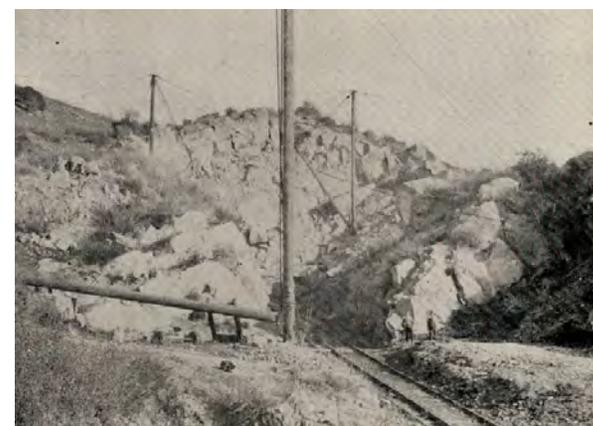
a. Site Happenings in the Late 1800s

The Project Site, located 2 miles west of present-day Saratoga, was historically comprised of two parcels. In 1856, John C. Hutchinson started a lime kiln business on the south parcel, which extracted and produced lime-



Pacific Congress Springs Railroad

Photo Credit: TOA

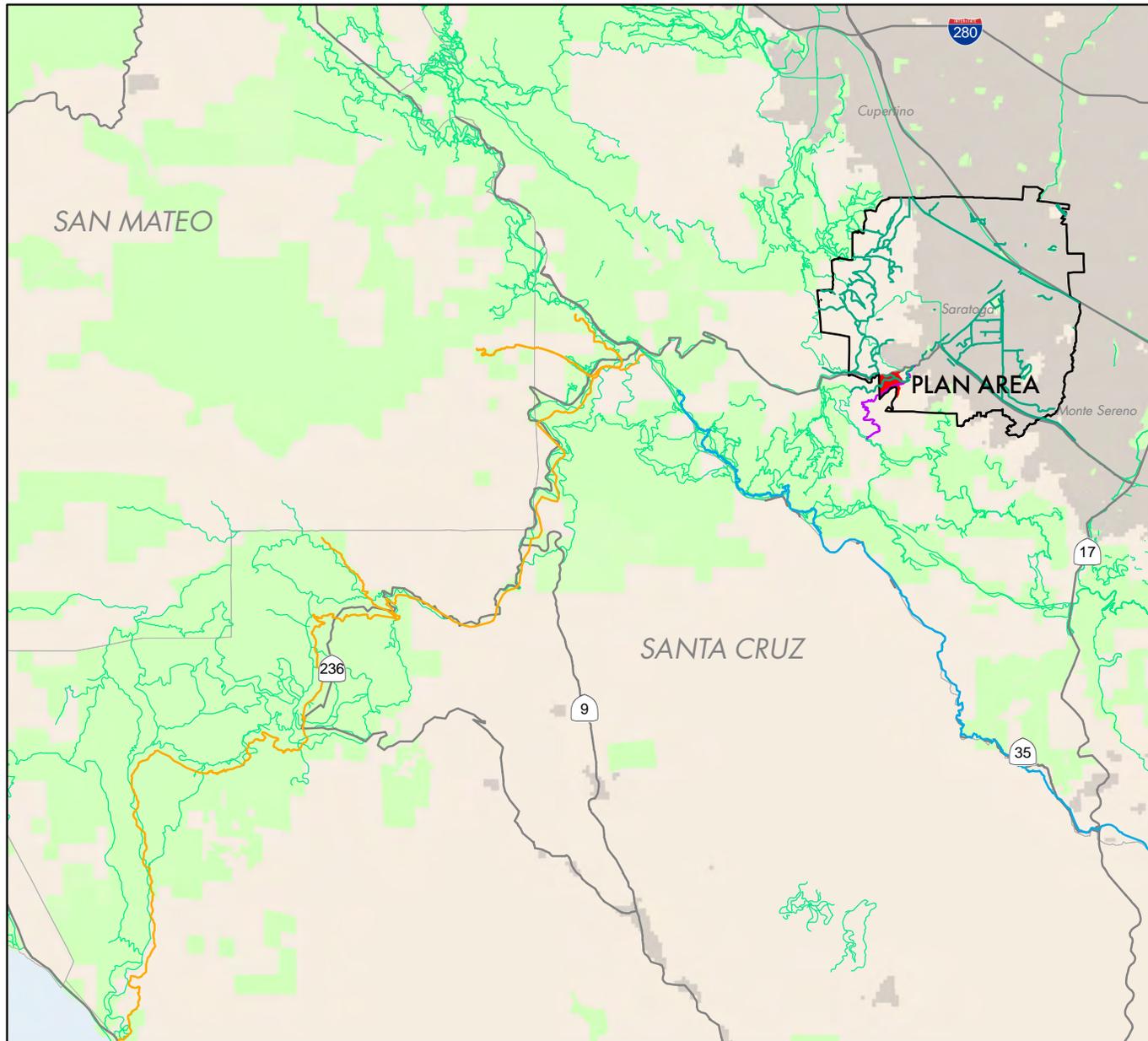


Stanford Quarry, Santa Clara County

Photo Credit: www.quarriesandbeyond.org

1 Alexander, Katie. Focus Group Meeting at the Saratoga History Museum with TPC|DC&E. August 6, 2013.

2 City of Saratoga, California: *History*. <<http://www.saratoga.ca.us/about/history.asp>>, accessed on August 26, 2013.



Administrative Boundaries

- Plan Area Boundary
- City of Saratoga

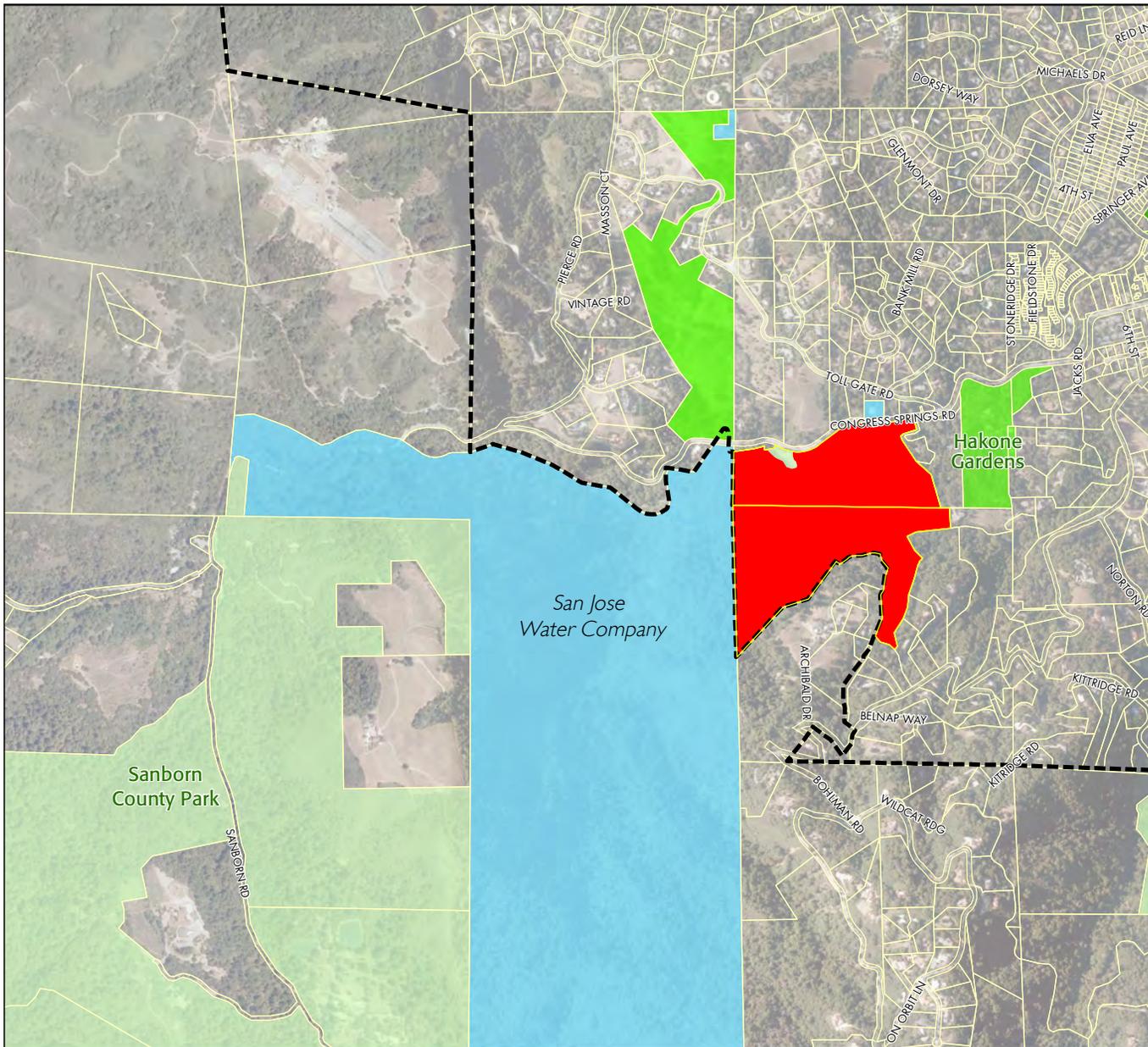
Trails and Open Space

- Parks and Open Space
- City of Saratoga Trails
- Saratoga-to-the-Sea Trail
- Skyline-to-the-Sea Trails
- Skyline and Skyline Connector Trails
- Other Trails



Source: City of Saratoga; Santa Clara County; Midpeninsula Regional Open Space District, 2012; Conservation Lands Network, 2012; The Planning Center | DC&E, 2013.

Figure 1 - Regional Context



Administrative Boundaries

- Plan Area
- City of Saratoga
- Parcels

Parks and Open Space

- Saratoga Parks
- Regional Parks
- Dedicated City Open Space
- San Jose Water Company

Source: City of Saratoga, 2013; Santa Clara County, 2013; The Planning Center | DC&E, 2013.



Figure 2 - Site Context

stone for gold and silver mining operations. While he only ran the business for two years, the 160-acre property remained in the Hutchinson family for many decades. The lime from the quarry was used for a couple buildings in the Saratoga Village, including Hutchinson's meat market, another of his business ventures.³ These buildings still exist today and are located on the northern corners of the Big Basin Way and 3rd Street intersection.

The Hughes brothers, David and Elisha, discovered a copper vein on the north parcel in 1854 and founded the Campbell Creek Copper Mining Company with Franklin Farwell and other prominent San Jose business men.⁴ Unfortunately, relatively little copper was found once the mining business was underway. Ironically, Hiram Hughes, their brother, stumbled across the state's largest copper strike in 1861 while out searching for cattle around present-day Copperopolis in eastern California. The 40-acre north parcel was first sold to Lewis Sage, who operated the Pacific Congress Springs Resort, and then to John Shields in 1890. It was Shields who first began the lime quarry on the north parcel.

Lumbermen coming down Big Basin Road with loads of lumber and a team of horses would frequently rest at the quarry. They would water the horses at the creek and cool the breaks before heading down to Saratoga Avenue.

c. Quarrying in the Early 1900s

In the early 1900s, there were two active quarries on the site.⁵ One parcel was purchased by Dr. John W. Knowles, a County Supervisor who had originally been pushing the County to buy the property, and John J. Stanfield in 1908.⁶ The two men converted the lime quarry into a gravel quarry. During their ownership, a spur from the electric railway was connected to the site, aiding gravel transportation into San Jose. The quarry was officially called Stanfield & Knowles Quarry and employed three men.

The Saratoga Crushed Rock Company was adjacent to the Stanfield & Knowles Quarry. By 1921, it was called the Quality Sand & Rock Company. The company office was located in San Jose and operated by GWC Baker, president and Wm. T. Macdonald, secretary. Twenty men were employed on-site and produced 450 cubic yards of crushed rock daily. In 1921, Chas. C. Bell was the superintendent of plant operations and had been in that



Quarry Loading Structure - Mining Era

Photo Credit: Saratoga Historical Foundation



Quarry Site - Mining Era

Photo Credit: Saratoga Historical Foundation

3 Focus Group Meeting at the Saratoga History Museum with TPC|DC&E. August 6, 2013.
4 Cunningham, Florence R., 1976, *Saratoga's First Hundred Years*, Saratoga Historical Foundation/Valley Publishers.
5 Hamilton, Fletcher. State Mineralogist, California State Mining Bureau. *Report XVII of the State Mineralogist: Mining in California during 1920*. San Francisco: January 1921, pages 226 to 227.
6 Peck, Willys, 2011, *They Called It Saratoga*, Saratoga Historical Foundation: pages 66 to 67.



Figure 3 - Quarry Site in 1937
Photo Credit: Saratoga Historical Foundation



Quarry Loading Structure Foundation - Today



Relics of Quarrying Activities - Today



1960s Stonework - Today

position since 1908. This was the company that drove the two concrete tunnels into the hillside.

A movie about an Alaska goldmine was reportedly filmed at the quarry in 1917.⁷ Because the quarry was equipped with rock crushers, gravel screens, chutes, and bunkers, it provided the perfect setting. Titled *The Wolf's Fangs*, the melodrama featured local actors and was shown at the Foothill Club in January 1918. Unfortunately, it was not release elsewhere, and the well-known director subsequently moved down to Hollywood.

d. County Ownership of the Quarry

In 1921, the county bought the property and operated it as a rock and gravel quarry, which supplied the material for the county's roads. The gravel quarry was operated by Santa Clara County Roads and Airports Department until 1967. Under County ownership, the facility was called the Congress Springs Quarry (Figure 3). There were two types of gravel. One was a "blue rock" or "chert" that was perfect for road construction because it set like cement when water was added to it. The other type was a "plane" or "pea" gravel.

The "blue rock" was used for the original Garrod farm roads and it was better than the Voss Quarry gravel that was later used after the Congress Springs Quarry shut down.⁸ Male members of the Garrod family would drive an old truck to the quarry to load up gravel. They would drive the truck under the hopper and onto the scales for the payment calculation.

Infrastructure for the quarry changed dramatically over the years.⁹ In the 1920s, gyratory crushers and steam shovels were used, but by 1954, they were replaced by jaw crushers and bulldozers. Concrete-line tunnels were excavated into the hillside for conveyor belts that transported the stone from the blast site to the railway. Tunnels were later designed and built to specifically load up semi-trucks.

e. Quarry Closure and Subsequent Site Activities

By the 1960s, neighboring residents were fed up with the quarry activities, especially the trucks hauling out rock a couple times a day, which they believed drove too fast.¹⁰ Reportedly, a girl was struck by a gravel truck. She

7 Alexander, Katie. Focus Group Meeting at the Saratoga History Museum with TPC|DC&E. August 6, 2013.

8 Garrod, Jane. Personal Interview with Ann WaltonSmith and Marianne Swann. June 15, 2013.

9 Hamilton, Fletcher. State Mineralogist, California State Mining Bureau. *Report XVII of the State Mineralogist: Mining in California during 1920*. San Francisco: January 1921, pages 226 to 227.

10 Welsh, Jackie. Focus Group Meeting at the Saratoga History Museum with TPC|DC&E. August 6, 2013.

survived and the accident was decidedly not the driver's fault, but the politics of it all forced the County to close the quarry.¹¹

Following the 1967 closure, County Road Department employees used the site with their families and friends for recreational activities. In their own time, they installed and maintained picnic tables, BBQ pits, and sitting areas. The park's stonework and landscaping was voluntarily constructed by Skeets Guidotti, who worked at the quarry before its closure. The site was used for parties, including the occasional wedding, but employee functions have not occurred on-site since the late 1990s.

For all those decades, the property was gated and restricted to the public, only accessible to County employees. But even though the site was restricted from the public, a few people reportedly found their way onto the property for play and camping.¹² It was also widely assumed that the land was part of the San Jose Water Company property so most people did not know about the quarry's existence or that the land was under County ownership.

f. City of Saratoga's Acquisition of Quarry Park

The City of Saratoga, which incorporated in 1956, acquired the property in October 2011 from the County of Santa Clara, with a conservation easement and joint-funding from the County and Midpeninsula Regional Open Space District. Santa Clara County sold all of the land, except for 1.69 acres, to the City of Saratoga because the land was considered surplus to the County and valuable to the City. Santa Clara County maintained ownership of the 1.69-acre parcel, adjacent to Big Basin Way (Highway 9), for maintenance/storage purposes.

In February 2013, the Local Agency Formation Commission for Santa Clara County approved the City of Saratoga's application for an expansion of the City's Urban Service Area to include the Congress Springs Quarry Parcels. In April 2013, the City of Saratoga officially adopted a resolution approving the annexation of the Congress Springs Quarry Parcels to the City of Saratoga. The City also amended the property's land use designation from Hillside Open Space (H-OS) to Open Space-Outdoor Recreation (OS-OR) so that it was consistent with the City's intent to create a city park on the property.



Congress Springs Station Interpretive Signage

Photo Credit: Saratoga Historical Foundation

11 Whalen, Michael. Phone Interview with TPC|DC&E, August 12, 2013.

12 Focus Group Meeting at the Saratoga History Museum with TPC|DC&E. August 6, 2013.

2. Existing Conditions Analysis

A. OPEN SPACE, PARKS AND CIRCULATION POLICIES

The following is a list of existing policy documents, specifically pertaining to open space, parks, and circulation, which affect the Master Plan:

1. City of Saratoga

a. Open Space and Conservation Element (2007)

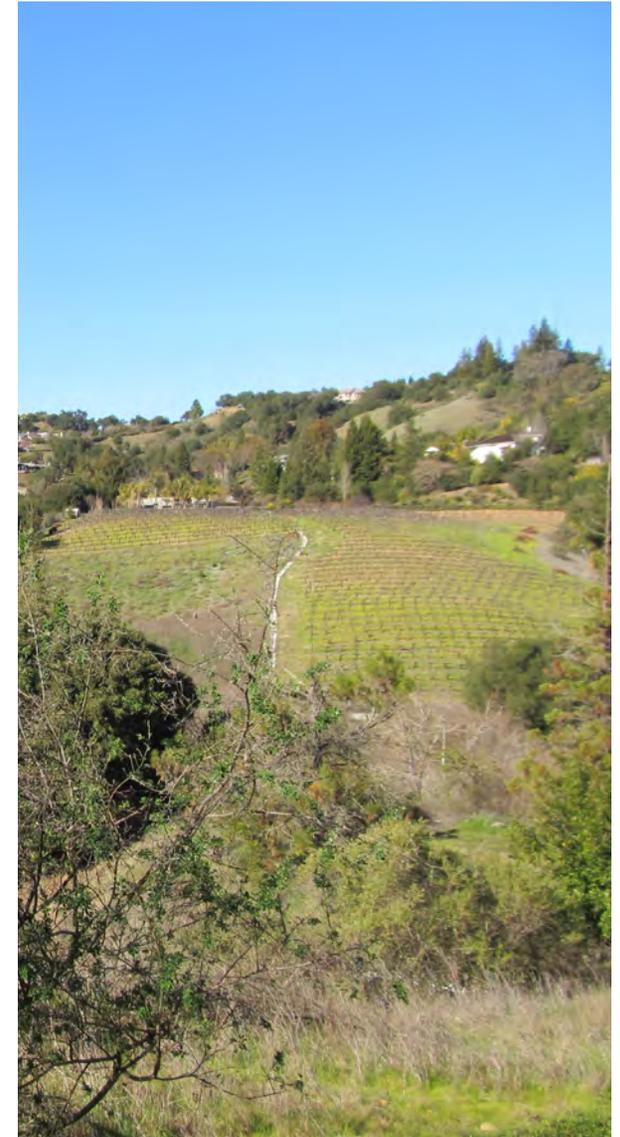
The Open Space and Conservation Element document describes the existing resources and park information within the City of Saratoga. Additionally, it includes the City's effort to maintain and increase the amount of parkland and recreational areas according to its park standard, which follows the National Recreational Park Association standard of 5 acres per 1,000 residents. The City's plan is to develop a comprehensive trail network "that provides [the community with] open space linkages for greater access to recreation activities and natural resources within and beyond city limits."¹³ The document also includes existing trail easements and proposed trails. The current land use designation of the Project Site is Open Space-Outdoor Recreation (OS-OR).

b. Circulation and Scenic Highway Element Update (2010)

The City of Saratoga's Circulation and Scenic Highway Element Update was completed to: (1) improve transportation options for multiple users; (2) promote a healthy and active community for residents by providing alternative transportation opportunities for bicyclists and pedestrians; and (3) be a responsible partner in developing regional transportation solutions.¹⁴ As part of the update, the document describes the existing conditions of bicycle facilities, which are categorized into three different classes: Bike Paths and Trails (Class I), Bike Lanes (Class II), and Bike Routes (Class III). Among three classes, bike lanes and routes are predominant in Saratoga.

¹³ City of Saratoga, Open Space and Conservation Element, June 6, 2007, page 20.

¹⁴ City of Saratoga, "Vision Statement", Circulation and Scenic Highway Element Update, November 17, 2010.





c. Municipal Code: Parks and Recreation

The Park and Recreation chapter of the City of Saratoga’s Municipal Code defines acceptable and prohibited activities within City parks and recreational facilities. The chapter sets general regulations and permit requirements for special recreation activities, including sports and group uses. In order to preserve and prevent any incident of fire and loss of parkland, the chapter specifically states that use of tobacco is prohibited in recreational areas, defined as any outdoor area that is open to public for recreational purposes, which includes parks and trails.

d. Municipal Code: Zoning

The Zoning chapter of the Saratoga Municipal Code regulates land use in the city. It describes zones and contains the Zoning Map and development standard. The Project Site is zoned as Residential Open Space (R-OS). According to the Section 15-20.010, purposes of the R-OS zone are to “preserve hillside and mountainous land in its natural condition through the establishment of dedicated open space areas, and through environmentally sensitive low density residential use” and to “promote those uses which support and enhance a rural character and preserve important resources such as forests, natural vegetation, watersheds, animal habitat, scenic beauty, recreational areas, open space and public access thereto.” The permitted uses within the R-OS zone includes public parks, trails, and open space.

2. County of Santa Clara

a. Countywide Bicycle Plan (2007)

Santa Clara Valley Transit Agency (VTA), the public transit agency that serves Santa Clara County, adopted the Santa Clara Countywide Bicycle Plan (CBP) in August 2008, to guide the development of bike facilities within the County by identifying cross-county bicycle corridors and other projects of countywide or intercity significance. The CBP was prepared in order to establish bicycling as a safe and viable transportation mode that could replace personal vehicles. In the City of Saratoga, the Plan identifies seven of the County’s 24 roadway bicycle corridors and one of County’s ten separate path/trail corridors, which all provide direct bicycle connections to the surrounding jurisdictions.

b. County of Santa Clara General Plan: Parks and Recreation Chapter (1994)

Santa Clara County, the previous owner of the Project Site, designated the property as Major Educational & Institutional Uses. Surrounding County lands were designated as Hillside, Other Public Open Lands, or Regional Parks, Existing. The Parks and Recreation Chapter of the General Plan includes strategies, policies, and implementation to develop parks and public open space lands, improve accessibility, balance recreational and environmental objectives, facilitate inter-jurisdictional coordination, and encourage private sector and non-profit involvement. The same chapter also includes strategies, policies, and implementations for trails, which includes planning for trails, providing recreation, transportation, and other public trail needs in balance with environmental and land owner concerns, implementing the planned trail network, adequately operating and maintaining trails, establishing priorities, and facilitating inter-jurisdictional coordination. Sanborn Skyline, Stevens Creek, and Villa Montalvo County Parks are located in the vicinity of the Project Site and the City of Saratoga. Also, there are multiple existing and proposed/planned trails, including Saratoga-to-the-Sea trail, Congress Springs Connector Trails, Juan Bautista de Anza National Hiking Trail, Sanborn Connector Trail, and Skyline Connector Trail.

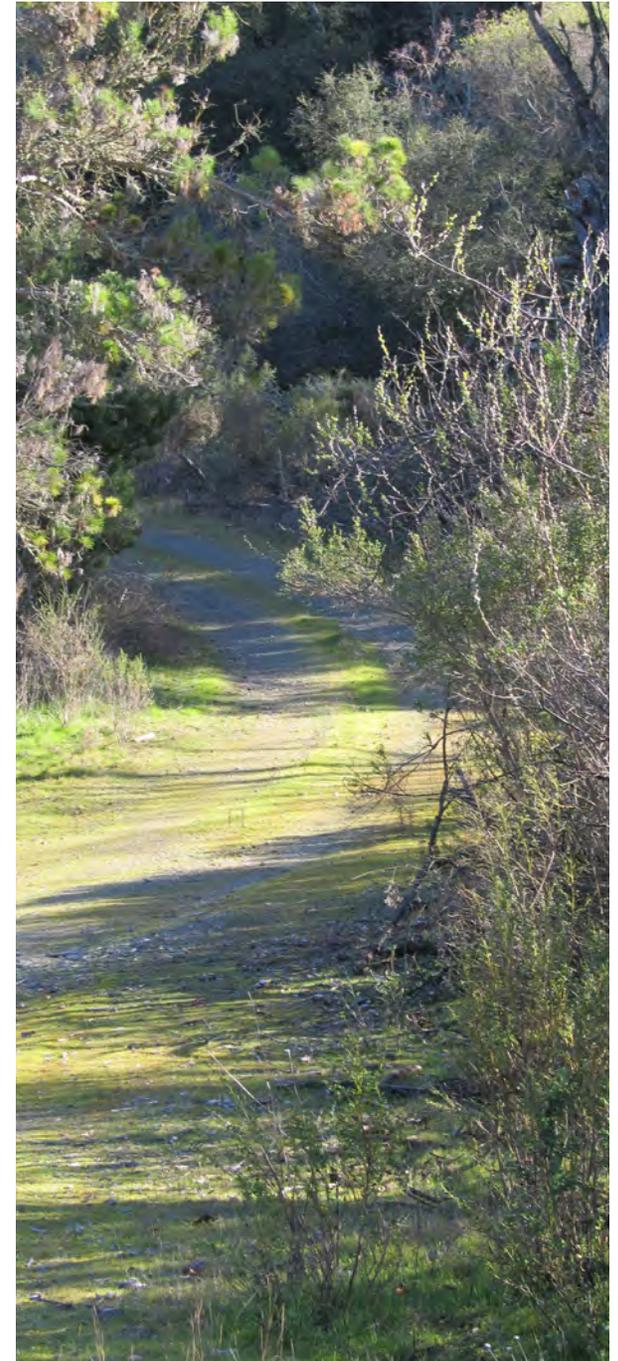
3. Midpeninsula Regional Open Space District

a. Basic Policy (1999)

The Midpeninsula Regional Open Space District (District) is a non-enterprise special district that serves part of Santa Clara, San Mateo, and Santa Cruz counties in order to form a continuous greenbelt of permanently preserved open space by linking its lands with other public parklands. As a member of Bay Area Open Space Council, the District participates in cooperative efforts, including Bay Trail, Ridge Trail, and Skyline-to-the-Sea trail, which are regional Bay Area trails run across the District's jurisdiction. The District's Basic Policy document includes goals and policies that relate to open space land preservation and management, inter-agency relationships, and public involvement. [The Saratoga Gap and Fremont Older Open Space Preserves are located in the vicinity of the city limits of Saratoga.]

B. GEOLOGY, SOILS AND TOPOGRAPHY

The Quarry Park property is located in a geologically active area, only 1.5 miles northeast of San Andreas Fault Zone. The Berrocal Fault Zone transects the site, thrusting Mesozoic Franciscan bedrock south over Pliocene-Pleistocene Santa Clara sediment (Figure 4). This bedrock, which was locally exposed in steep portions of the site, is the material that was mined for aggregate. On top of the bedrock is a large, active, and deep-seated landslide.





Most of the native soil was stripped during quarry operations. The existing soils are well-drained loam and gravel-sandy loam found on 30 to 50 percent slopes. Landslides often occurred from wet weather, adverse structures, seismic shaking and/or improper grading and drainage. Landscapes with similar soils are historically used for wildlife habitat, watershed, and recreation.

Following the quarry closure, the hillside was rehabilitated with multiple graded pads and benches to reduce the steep grades of the quarry face. The entire site still has an overall steep north-facing slope with a number of drainage channels flowing north, down to Saratoga Creek. The creek creates a deep ravine traversing the northern boundary of the site.

C. BIOLOGY AND HABITAT

Below is a summary of the site's biological and habitat resources, based upon the site background information and field reconnaissance conducted by H.T. Harvey & Associates.

1. Dominant Biotic Habitats

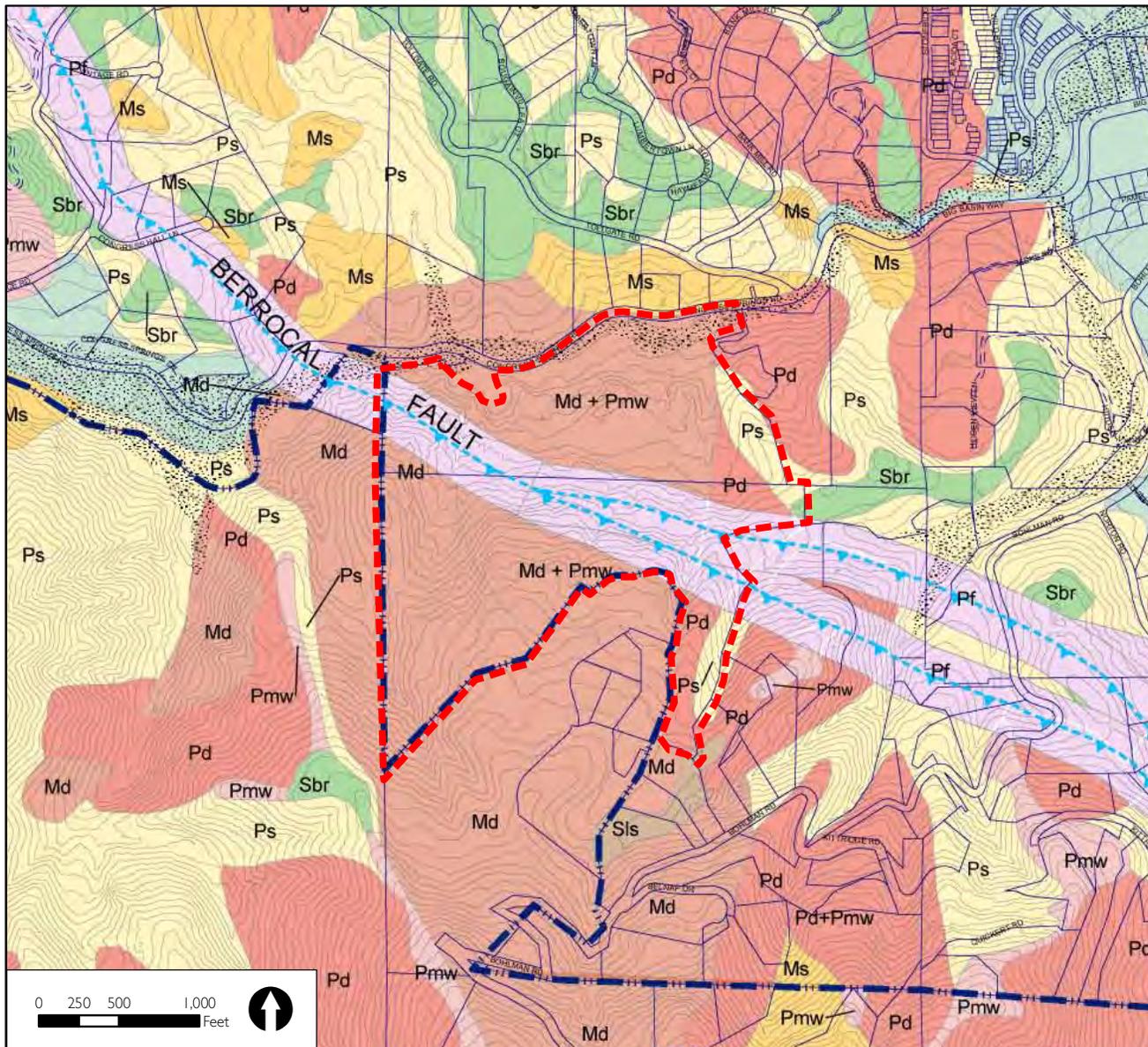
The four habitat types are shown in Figure 5. They include:

a. Riparian Forest

Along Saratoga Creek, tall trees with sparse understory planting provide high-quality habitat with a significant amount of native plants. Trees include white alder, big leaf maple, Fremont's cottonwood, willow, California bay, and coast live oak. Understory planting includes stinging nettle, common horsetail, blue wildrye, poison oak, and the invasive poison hemlock.

b. Northern Coastal Shrub

Logging and quarry activities have left this area with dry, sandy, exposed slopes. While there is a lack of trees, the shrub layer is thick with native coyote brush, sticky monkey flower, and a mix of native and non-native annual grasses and forbs.



Source: City of Saratoga, 2013; Cotton, Shires and Associates, Inc., Consulting Engineers and Geologists, 2013; The Planning Center DC&E, 2013.

Administrative Boundaries

- - - Plan Area Boundary
- - - City of Saratoga

Areas with Stable Ground

- **Sbr** Level ground to moderately steep slopes underlain by bedrock within approximately 3' of the ground surface or less; relatively thin soil mantle may be subject to shallow landsliding, settlement, and soil creep

Areas with Significant Potential for Ground Movement

- **Pmw** Steep to very steep slopes generally underlain by weathered and fractured bedrock subject to mass-wasting by rockfall, slumping, and raveling
- **Ps** Unstable, unconsolidated material, commonly less than 10 feet in thickness, on gentle to moderately steep slopes subject to shallow landsliding, slumping, settlement, and soil creep
- **Pd** Unstable, unconsolidated material, commonly more than 10 feet in thickness, on moderate to steep slopes; subject to deep landsliding
- Liquefaction hazard zones as mapped by the California Geological Survey depicted by stipple

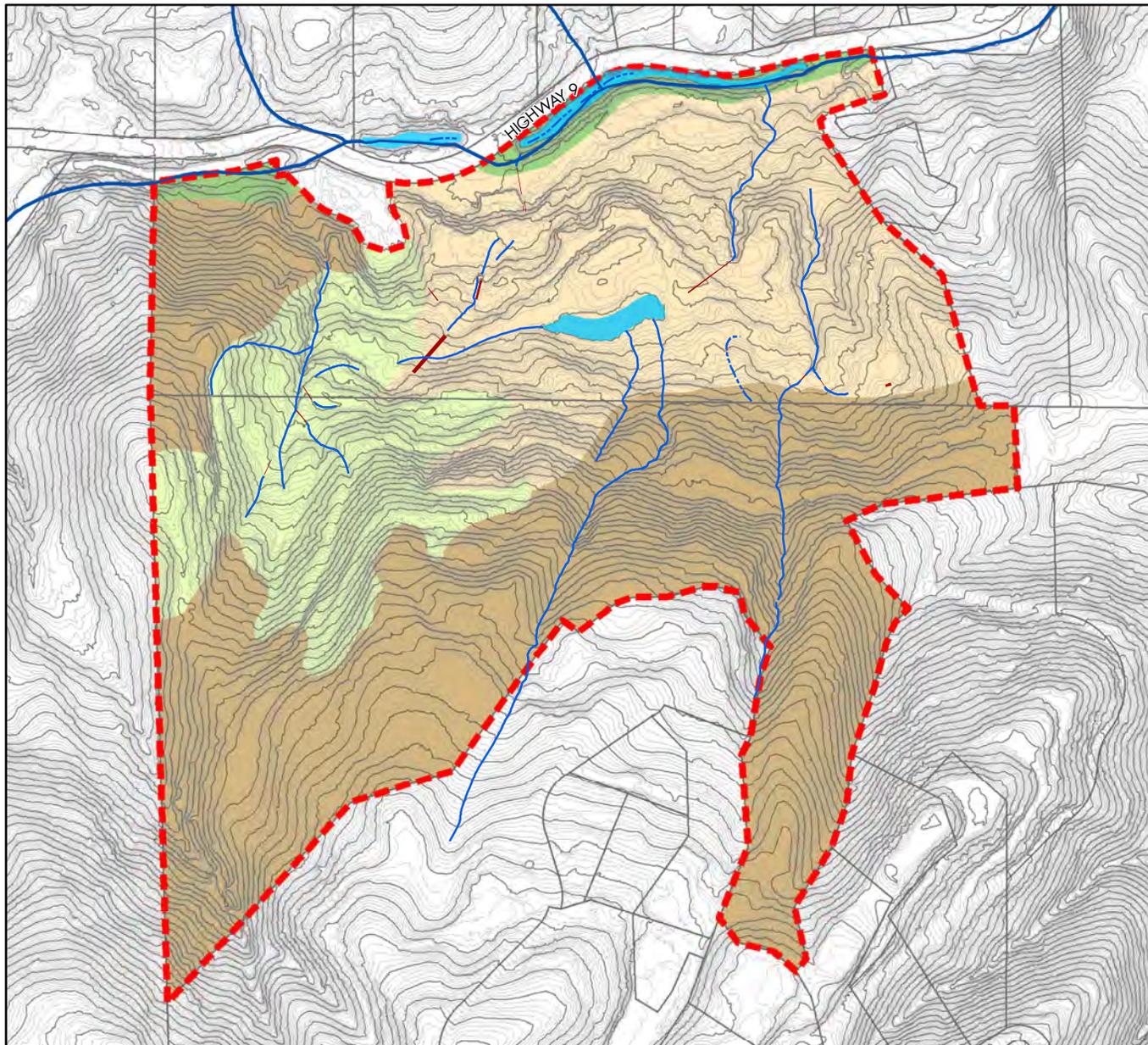
Areas with Potential for Primary Fault Rupture

- **Pf** Zone of potential primary surface fault rupture
- - - Potentially active fault traces

Unstable Ground Characterized by Seasonally Active Downslope Movement

- **Ms** Moving shallow landslides, commonly less than 10 feet in thickness
- **Md** Moving deep landslides, commonly more than 10 feet in thickness

Figure 4 - Geology and Soils



Habitat Type

- Broad leaved Upland Forest
- Mixed Native/Non-native Woodland
- Northern Coastal Scrub
- Riparian Forest
- Wetland

Waters and Drainage

- Culverts
- Creeks
- Stream
- Drainage

Administrative Boundaries

- Plan Area Boundary
- Parcels

Topography

- 2' Contour Lines
- 10' Contour Lines



Source: City of Saratoga, 2013; Santa Clara County, 2013; HT Harvey and Associates, 2013; The Planning Center | DC&E, 2013.

Figure 5 - Dominant Biotic Habitats



A. Riparian Forest



B. Northern Coastal Shrub



C. Broadleaf Upland Forest



D. Mixed Native and Non-Native Woodland

Dominant Biotic Habitat Images

c. Broadleaf Upland Forest

The higher slopes of the site have been largely undisturbed and therefore provide quality habitat. Trees include coast live oak and California bay. Understory plants include oceanspray, poison oak, chain fern, common snowberry, pink honeysuckle, and common wood fern. While the majority of plants are native, the cleared trails through this area support invasive French broom.

d. Mixed Native and Non-Native Woodland

This highly-disturbed part of the site has the lowest habitat quality. Because it is mostly flat, most of the structures were located here, which has left the canopy more open. The trails and canopy openings are now dominated with invasive weeds including: French broom, yellow star thistle, fennel, Italian thistle, poison hemlock and ripgut brome. The trees in this area include naturally-occurring coast live oak, California bay, and big leaf maple, as well as planted native and non-native trees. Planted native trees include coast redwood, giant sequoia, Monterey pine and Monterey cypress, while planted non-native trees include eucalyptus and cotoneaster.

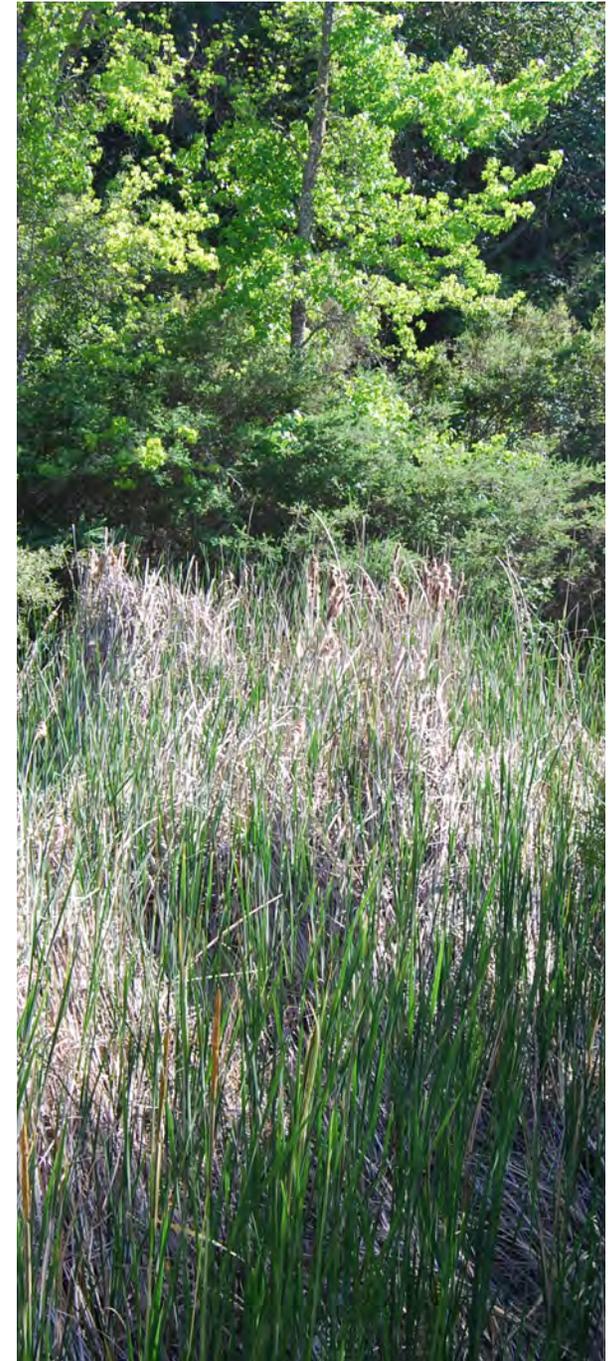
In addition, HT Harvey & Associates found that there are no federally or state-listed special-status plant species located on-site. The California red-legged frog, a special-status species, has been located in the vicinity, 1,000 feet downstream. Special-status species that could possibly be located on-site include the Townsend's big-eared bat, the San Francisco dusty-footed woodrat, and nesting birds (Figure 6).

D. UTILITIES

This section summarizes the existing conditions assessment completed by NV5 in July 2013. Locations of this infrastructure are shown in Figure 7.

1. Sanitary

The northern parcel of the site is within the service area boundary of the West Valley Sanitation District (WVSD), but the southern parcel is outside of the service area. Additionally, there is no public record of sewer service on either parcel. Although there is an existing 10-inch WVSD gravity sewer main located along Congress Springs Road following the property frontage, there is no other visible evidence of a sewer system within the Project Site, even from the past quarry operations.



2. Water

Remnants of old irrigation, installed in 1969 for the re-vegetation and restoration of the hillside, exist within the Project Site. The old irrigation system consists of several water tanks, as shown in Figure 7. Also, a well might have been located adjacent to the concrete storage reservoir and all tanks are connected by 3- to 4-inch galvanized pipelines to irrigation heads. In the picnic area, the pipelines are broken with a trickle of water supplying water through a ditch to a small pond.

3. Stormwater Drainage

The main storm drainage body is Saratoga Creek, located immediately adjacent to Congress Springs Road, and the storm drainage generally flows downhill towards Saratoga Creek. The access roads generally drained by roadside ditches with a few corrugated metal culverts at crossings. There is a small pond that stores water from a portion of the roadside ditch system, but also from a broken pipeline section of the irrigation system mentioned above.

4. Electricity

Currently, there is an existing 12 kilovolts overhead power distribution line following along Congress Springs Road, and another that cross the eastern boundary of the Plan Area that connects to the low density residential development to the south. Also, there are remnants of an electrical power system, especially in and around the concrete building foundation. There is an electric service pole and abandoned meter in the west of the building, and another abandoned electrical control panel located opposite end of the building. In addition, abandoned electrical outlets were found in the picnic area.

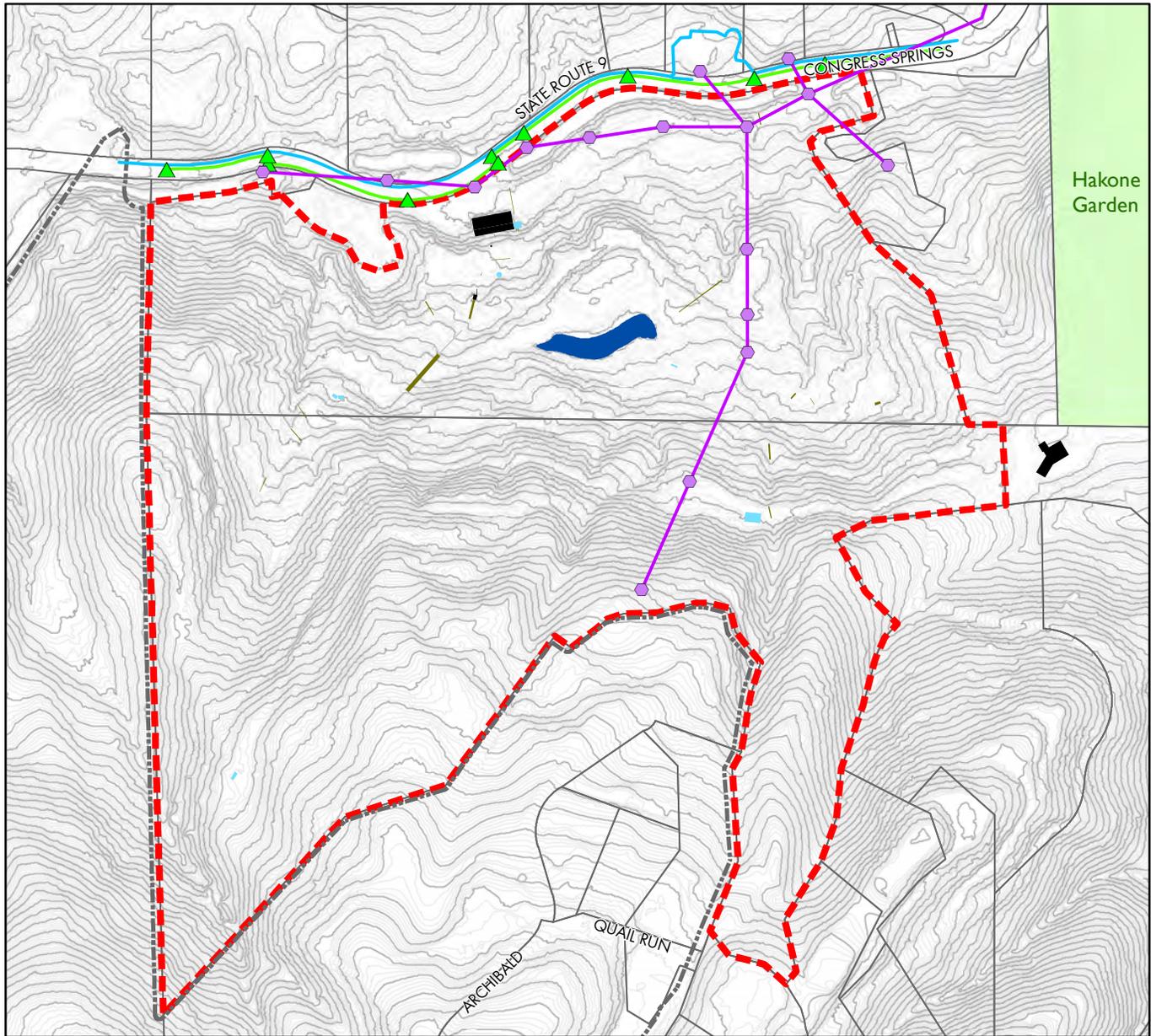
5. Gas

There is no evidence of gas used for the quarry operations, but there is an existing gas main system located in the intersection of Congress Springs Road and Toll Gates Road, where also the gas main system ends.

E. STRUCTURES

While records show that the land was quarried during the 19th century, on-site remains have only been dated as far back as the 1960s. Remnants of quarry use (and the Santa Clara County Congress Springs Landscape Yard) include aboveground storage tanks, loading station construction debris, concrete water tank, metal storage containers, demolished cars, wooden storage tanks, abandoned drums, outdoor eating areas for site employees, small wooden shelter, concrete-lined tunnels filled with construction debris, concrete foundation of a conveyor belt system, stone steps leading to an artificial waterfall, and a man-made pond used for site employee functions. (CoS PW Dept., 2011)





Existing Infrastructure

- Electrical Power Poles
- Electrical Overhead Power Distribution Line
- ▲ Stormwater Drainage
- Stormwater Pipelines
- Water Pipelines

Existing Structures

- Building
- Concrete Slab
- Culvert
- Pond
- Water Tank

Administrative Boundaries

- Plan Area Boundary
- City Limits
- Parcels

- Topography
- 2' Contour Lines
 - 10' Contour Lines



Source: NV5, 2013; City of Saratoga, 2013; Santa Clara County, 2013; The Planning Center | DC&E, 2013.

Figure 7 - Infrastructure



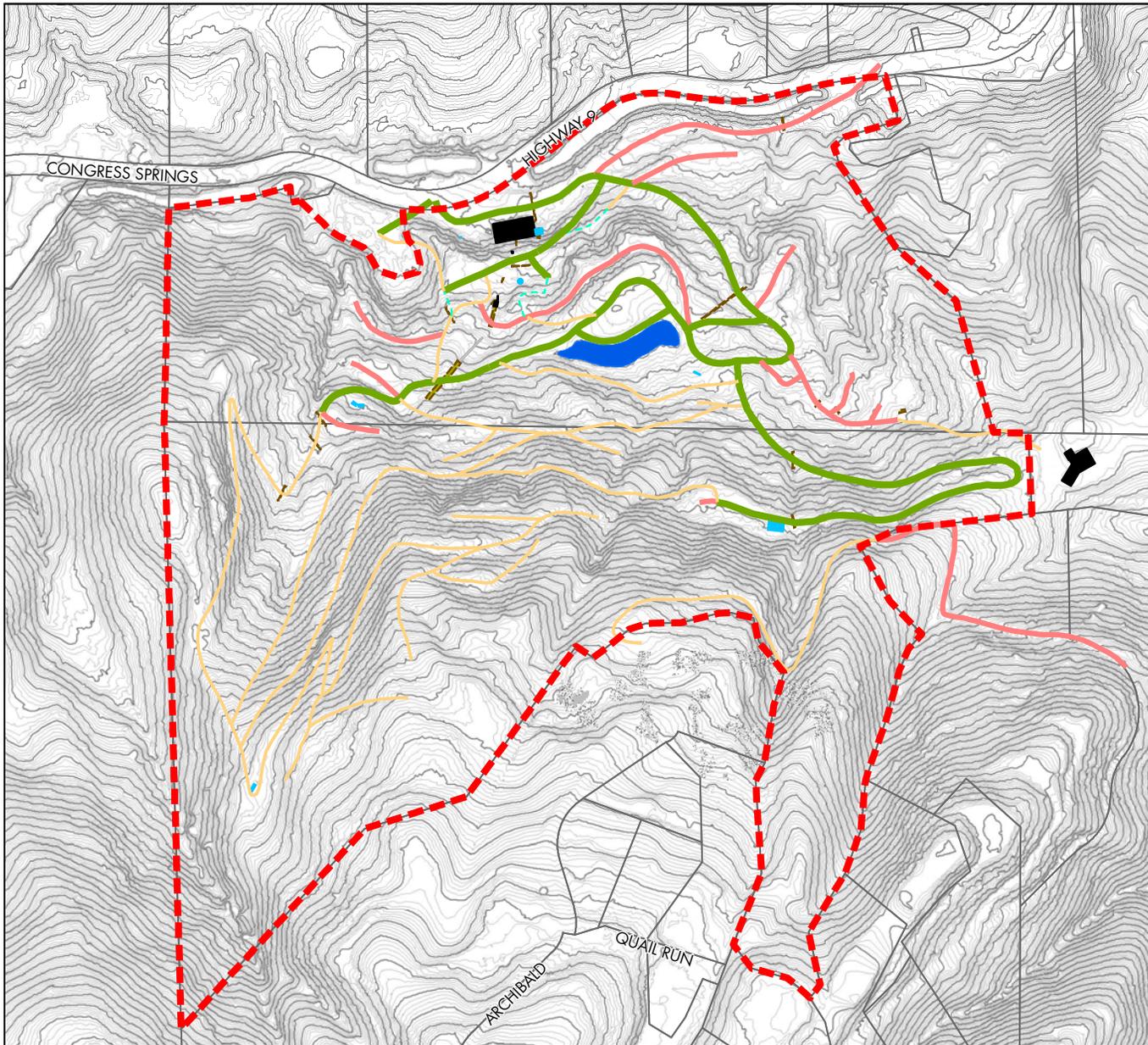
F. ROADS AND TRAILS

A thorough review and analysis of the property's existing roads and trails was completed by Tim Best in August 2013 (Appendix D). There are 0.8 miles of drivable roads and over 3 miles of overgrown/abandoned roads and tractor trails. While the roads are in relatively good condition, the tractor trails are questionable primarily because of their steepness. Key road and trail types are shown in Figure 8 and include:

- ◆ Principal Road: gravel road
- ◆ Secondary Road: unsurfaced dirt single-lane road
- ◆ Tractor Road: unused steep road constructed for tractor use (>30% grade)
- ◆ Trail: single track trail

While the principal roads located at the base of the hillside, in the northern part of the site, are fairly flat and in good condition, the remaining roads on-site suffer from various constraints. These include steep grades, drainage problems, instability, and overgrown with vegetation.

Roads heading up the hillside have steep grades from 15 percent up to 35 percent, which makes travel difficult and induces erosion. Water runoff concentrates down the length of these steep routes making it almost impossible to drain. Some trails have inadequate drainage, but are not eroding because they are unused and overgrown. If they were to be cleared, they would be susceptible to erosion. Those routes that have been washed out will require extensive reconstruction if they are to be used. New roads and trails should be designed to minimally affect natural drainage patterns and drainage structures must be maintained annually, prior to the rainy season.



Existing Roads and Trails

- Principal Road
- Secondary Road
- Tractor Road
- - - Trail

Existing Structures

- Building
- Concrete
- Culvert
- Pond
- Water Tank

Administrative Boundaries

- Plan Area Boundary
- Parcels

Topography

- 2" Contour Lines
- 10" Contour Lines



Source: City of Saratoga, 2013; Santa Clara County, 2013; Tim Best, 2013; The Planning Center | DC&E, 2013.

Figure 8 - Roads and Trails

3. Key Opportunities and Constraints

This chapter summarizes the opportunities and constraints that came out of the existing conditions analysis. Key elements from this section are shown in Figure 12.

A. OPPORTUNITIES

1. Connectivity

The site's location creates numerous opportunities for increasing local and regional connectivity.

a. Local Connections

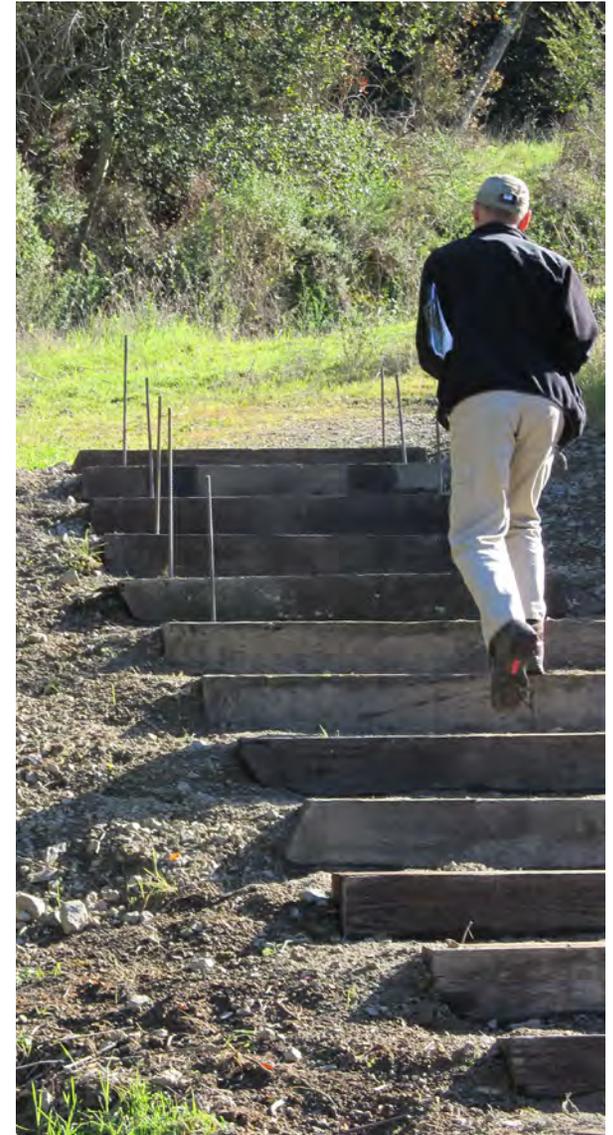
Local connectivity can be improved by linking the Project Site to the City trail (Figure 9) and bikeway network (Figure 10).

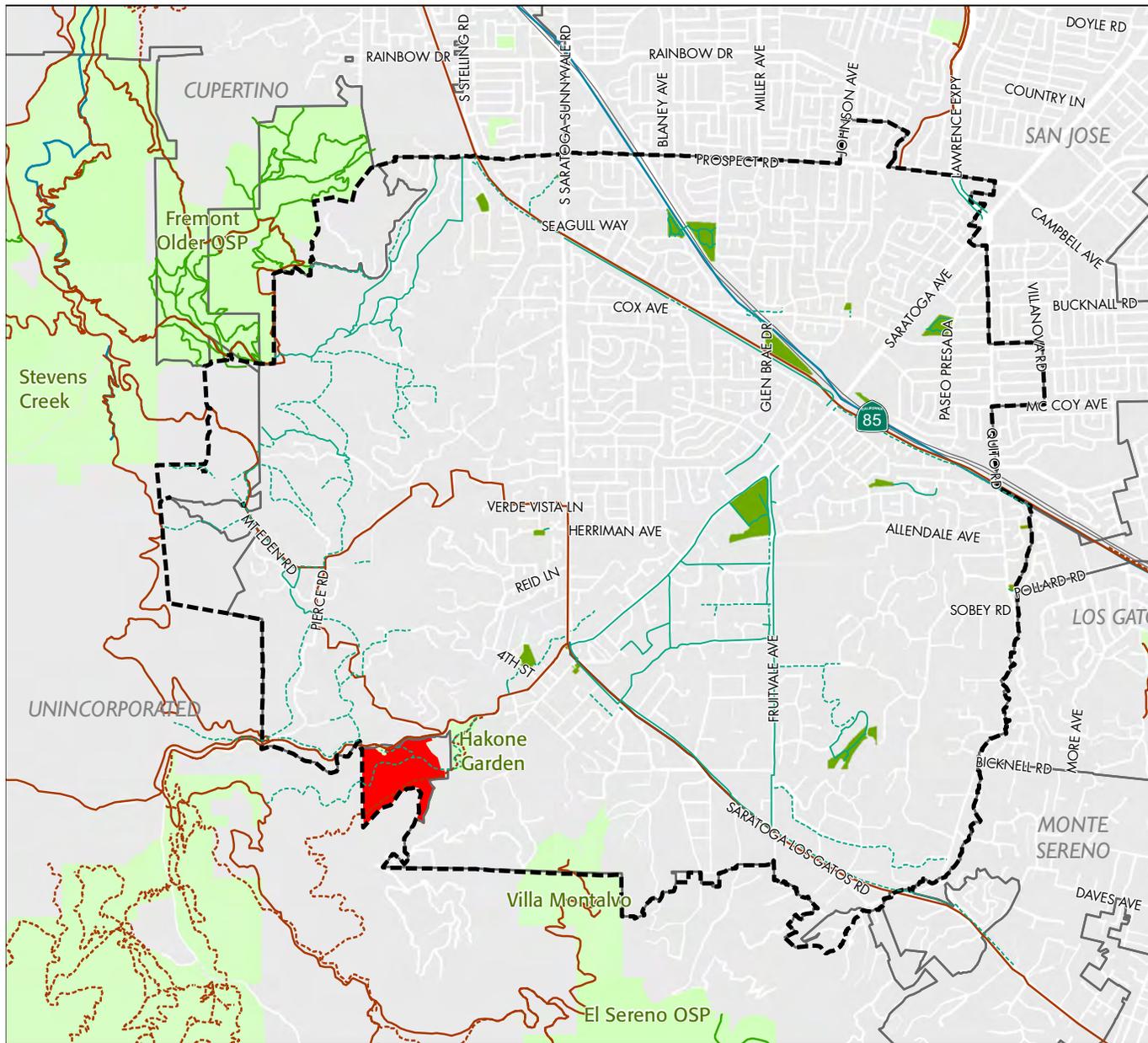
- ◆ Saratoga Village

The Saratoga Village is a historic downtown district, located only one mile east of the Project Site. The Village, concentrated along Big Basin Way between 6th Street and the Saratoga-Sunnyvale Road, is comprised of unique, locally-owned shops and restaurants. A multi-use trail from Saratoga Village, through Hakone Garden, to the Project Site would improve the urban to open space accessibility that is desired by many residents of Saratoga.

- ◆ Hakone Garden

The Hakone Garden is located adjacent to Quarry Park with vehicular access just east of the Project Site along Big Basin Way (Highway 9). The beautiful Japanese garden, created in 1912, was purchased in 1961 by a partnership of Chinese-American families. The group restored the garden and subsequently sold it to the City of Saratoga in 1966 for the public to enjoy. The garden remains under City ownership to this day, but is maintained by the Hakone Foundation.





Administrative Boundaries

Plan Area Boundary

City of Saratoga Trails

Existing

Potential

Santa Clara County Trails

Existing

Planned

Other Trails

Midpeninsula Open Space District Trails

California Major Regional Trails

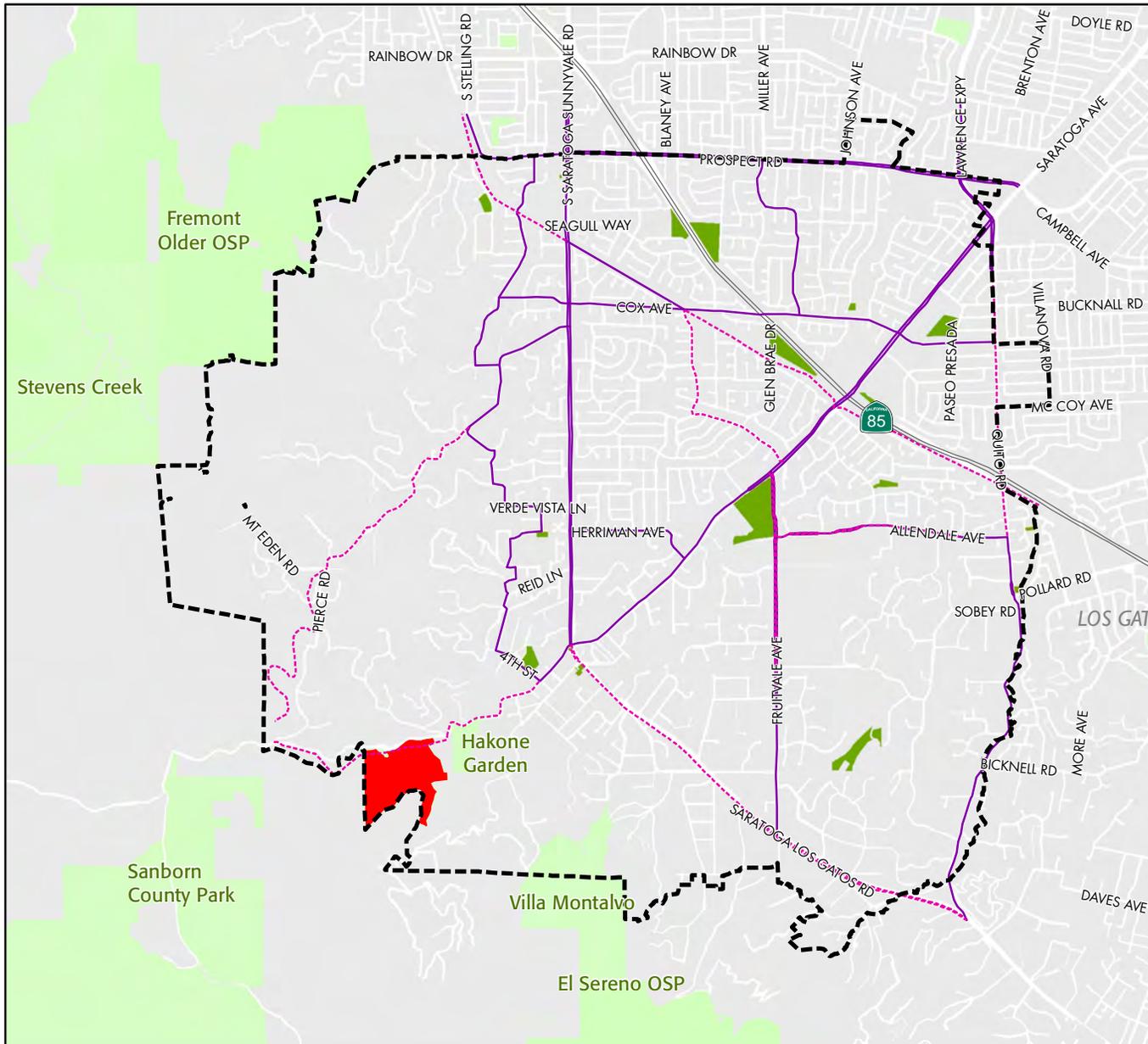
Parks and Open Space

City of Saratoga Parks and Open Space

Regional Parks and Open Space

Source: City of Saratoga, 2013; Santa Clara County, 2013; Midpeninsula Open Space District, 2013; Conservation Lands Network, 2012; The Planning Center | DC&E, 2013.

Figure 9 - City Trails



Administrative Boundaries

Plan Area Boundary

City of Saratoga Bicycle Facilities

Existing

Planned

Parks and Open Space

City of Saratoga Parks and Open Space

Regional Parks and Open Space



Source: City of Saratoga, 2013; Santa Clara County 2013; Midpeninsula Open Space District, 2013; Conservation Lands Network, 2012; The Planning Center | DC&E, 2013.

Figure 10 - City Bikeways



- ◆ Open Space Trails to the North

Directly across Big Basin Way (Route 9) from the Project Site are proposed trails that continue north to Mountain Winery and other open space parcels. It will be important to explore future links from the Project Site to these trails to improve open space connectivity in Saratoga.

- b. Regional Trails

Regional connectivity is shown in Figure 11.

- ◆ Sanborn County Park

Situated between Saratoga and Skyline Boulevard, Sanborn County Park is located approximately two miles southwest of the Project Site. The 3,688 acre park has over 15 miles of trails that range in difficulty and traverse a variety of features. Besides hiking, camping, and picnicking activities, there is also notable exposure to giant redwoods. A connection up to Sanborn County Park from the Project Site would not only provide foot access from Saratoga to these trails, but also serve as part of the greater Saratoga-to-the-Sea trail.

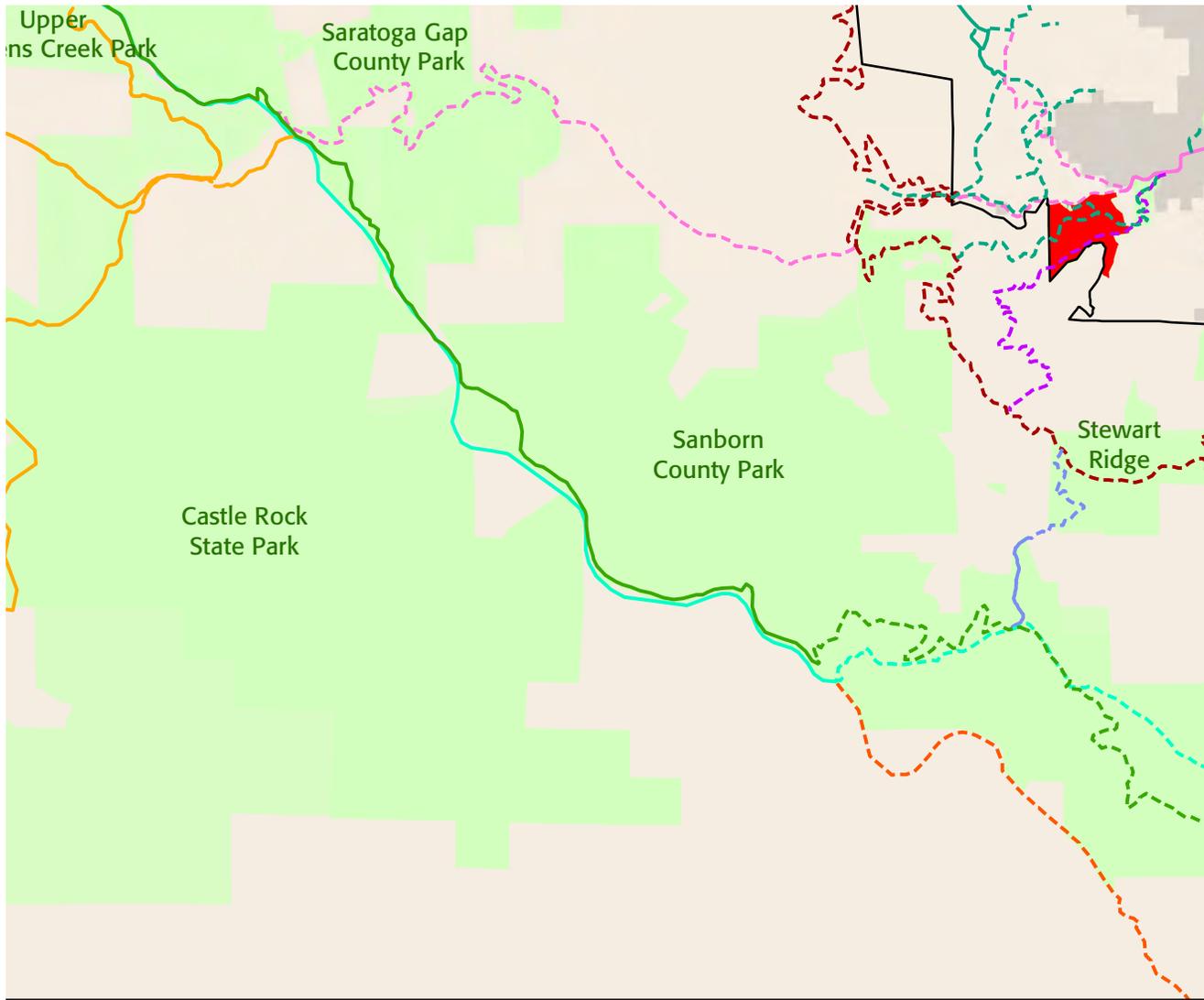
- ◆ Saratoga-to-the-Sea

The City of Saratoga is approximately 30 miles east of the Pacific Ocean, which is on the other side of the Santa Cruz Mountains. The popular Skyline-to-the-Sea Trail connects the ridge of the Santa Cruz Mountains down to the Pacific Ocean. This trail originates up in the Mountains on Skyline Boulevard, across from the Saratoga Gap parking lot. The trail parallels Route 9 through Castle Rock State Park, and then follows Waddell Creek through Big Basin Redwoods State Park. The trail ends at Waddell Beach, the creek's outlet into the Pacific Ocean.

There is a goal to create a trail from City of Saratoga up to the Skyline-to-the-Sea Trail, thus creating the Saratoga-to-the-Sea Trail. A trail through the Project Site would be one segment of this greater trail connection.

- ◆ Fremont Older Open Space Preserve and Stevens Creek County Park

Adjacent to the City's northeast boundary, Fremont Older Open Space Preserve and Stevens Creek County Park provides another connection for the Skyline-to-the-Sea Trail. The Fremont Old Open Space Preserve is owned and maintained by the Midpeninsula Regional Open Space District and the 739-acre property offers nine miles of multi-use trails with unique views. Stevens



Trails

- Saratoga-to-the-Sea Trail*
- Skyline-to-the-Sea Trails*
- Bay Area Ridge Trail*
- Bay Area Ridge Trail: Santa Cruz Mountains*
- Congress Springs Connector Trail*
- Juan Bautista de Anza NHT*
- Sanborn Connector Trail*
- Skyline Connector Trail*
- City of Saratoga Trails*

***NOTE:** Solid lines indicate existing trails; dotted lines indicate proposed/planned trails.



of Saratoga, 2013; Santa Clara County, 2013; Midpeninsula Open Space District, 2013; Conservation Lands Network, 2012; The Planning Center | DC&E, 2013.

Figure 11 - Regional Connectivity



Creek County Park provides a variety of activities, including fishing and non-motor boating at a 92-acre reservoir, picnicking, and exploring the historic Villa Maria orchard in the 1,077-acre park.

2. Habitat Restoration and Protection

Specific interventions on the site could preserve, enhance, and/or restore the biology and habitat. These include the following:

1. Restore and expand the riparian corridor by removing non-native plants, planting native riparian plants, and limiting access into the riparian habitat.
2. Restore the seasonal wetland pond by removing non-native plants, improving the supporting hydrology, and limiting access with an interpretive boardwalk trail.
3. Remove invasive non-native plants throughout the site with volunteer stewardship activities that would improve habitat values.
4. Create an arboretum with labeled native plants and plants with interest, beauty, and educational value.
5. Highlight how vegetation has reclaimed the quarry over time with a walking tour and education information.

3. Education and Interpretation

The site's rich history and variety of ecological conditions provide valuable material for educational and interpretive activities. Activities and infrastructure for this material could include structure(s) with curated displays and pamphlets, interpretive walks with audio tours and informational signage, and seasonal events (walking tours, festivals, etc.). Based on the site's rich history, various themes could be explored as part of an interpretive program including:

- ◆ Sculpting the Landscape (topographical focus)
- ◆ Saratoga's Unexpected Arboretum (native and non-native plant diversity)
- ◆ Hidden Playground (County Roads' stone work and recreational areas)
- ◆ Digging into the Past (remnants of the quarry, including tunnels and structures)

4. Recreation

There are opportunities for both passive and active recreation at Quarry Park. As an open space already equipped with existing roads and trails, along with varied topography and spectacular views, the site lends itself to supporting a complex trail network of hiking, biking, and equestrian trails. Following the quarry closure, County staff used the site for picnicking and special events, which are activities that could continue to take place on-site. Other suitable

recreational activities that could be accommodated includes: bird-watching and outdoor education.

5. Historic Preservation

While some of the existing relics will need to be removed because they are hazardous, many other historic objects and structures can be retained. The park will have to be designed so that they are not accessible, both for their preservation and for public safety. Preservation of historic Quarry infrastructure, such as access to mining tunnels, can be achieved by limiting exposure only to viewing access and providing interpretation elements. Additionally, there is a possibility that the Project Site could be designated as part of the National Register of Historic Places.

B. CONSTRAINTS

While the Project Site presents many opportunities, there are also some key constraints to consider.

1. Ownership and Access

Because the Project Site is surrounded by private properties, easements would have to be acquired for multi-purpose trails to connect the Project Site to local and regional destinations. To connect down to Saratoga Village, trails would need to cross through private residential properties and Hakone Gardens. Additionally, a private residential property is located between the Project Site and Hakone Gardens. Connecting to Sanborn Park and the Skyline-to-the-Sea trail would require an easement through the San Jose Water Company property.

2. Sensitive Habitats

The only sensitive regulated habitat on site is the riparian forest corridor along Saratoga Creek. This habitat should be preserved as part of the project. Other potentially-sensitive habitats include the perennial pond and seasonal wetland feature located in the middle of the site and the on-site intermittent drainage features that bisect the site and support wetland vegetation. It will be important to avoid disturbing these areas whenever possible. If interventions do take place (i.e. an interpretive boardwalk at the wetland pond), permits may be needed and habitat restoration is recommended.

While there are no federally or state listed special-status plant species on-site, the California red-legged frog has been identified approximately 1000 feet from the project site. The existing on-site conditions are not ideal for the red-legged frog, but could provide potential breeding, foraging and dispersal habitat. At the same time, there is the presence of their exotic predator, the bullfrog, in the wetland pond, making the site less attractive habitat for the red-legged frog.





Other significant species that could potentially be located on-site include the Townsend's big-eared bat, the San Francisco dusky-footed woodrat, and nesting birds. While the woodrat and nesting birds will not likely constrain development, the presence of the bat in the quarry mines would restrict night-time lighting around the mines.

3. Topography

Approximately 90 percent of the site is unusable due to steep grades, which greatly restricts the amount of space that can be used for parking, staging areas, and other facilities. Additionally, road and trail drainage on slopes greater than 15 percent can be problematic because the water concentrates along the length of the road causing erosion and disrupting natural drainage patterns. Any development of trails or public access areas will require careful attention be paid to the erosion potential of the site. Figure 12 illustrates the suitability of the site's existing roads and trails for development of a trail network at Quarry Park. Due to the highly modified topography, it will be challenging to create continuous loop trails that do not require excessive grading and modifications at the site. Such loop trails would also require careful design of drainage crossings in order to mitigate erosion and protect water courses. A complete discussion of these issues is included in the Roads and Trails Assessment (Appendix D).

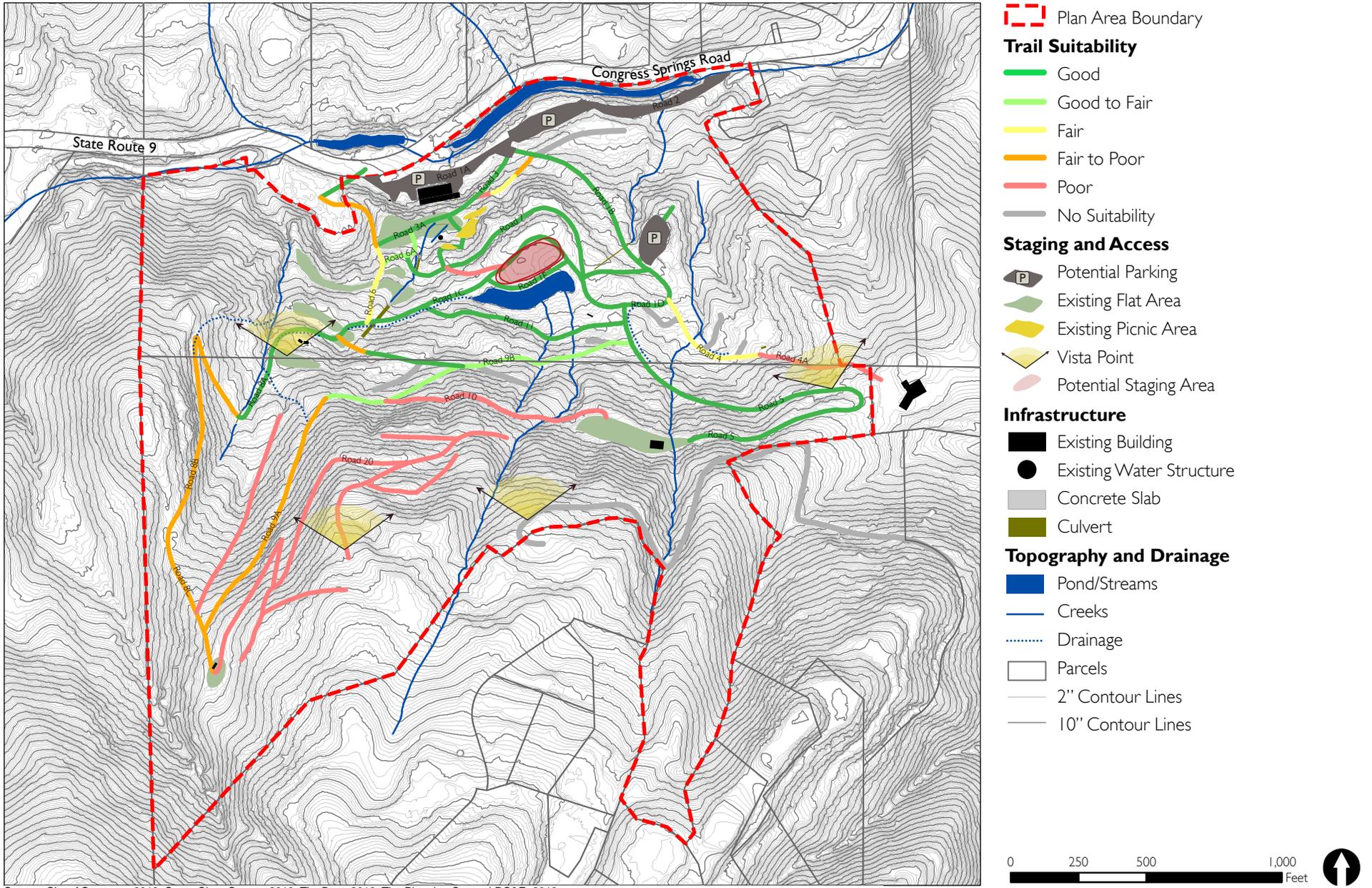


Figure 12 - Key Opportunities and Constraints