

**Recirculated Initial Study/Mitigated Negative Declaration
for the**

Taylor Mountain Interim Public Access Permit Program



Prepared for:

The Sonoma County Agricultural Preservation and Open Space District

August 2009

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Prepared by:

**Nancy Dakin, Environmental Planner, and Sonoma County Agricultural
Preservation and Open Space District Staff**

With the assistance of:

Whitlock & Weinberger, Transportation Consultants, Inc.

August 2009

The Sonoma County Agricultural Open Space District appreciates the collaboration of Partnering Agencies on this project including:

- **Sonoma County Regional Parks Department**
- **The City of Santa Rosa**
- **LandPaths**

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Appendix C:	Botanical Survey, Taylor Mountain Ranch Property, Circuit Rider Productions, July 2006
Appendix D:	Traffic Impact Study for the Taylor Mountain Interim Access Permit Program in the County of Sonoma, Whitlock & Weinberger, Transportation Consultants, August 18, 2009

1. Project Description

1.1 Project Overview and Rationale for Recirculation

The proposed Interim Public Access Permit Program (Permit Program) project consists of allowing interim public access on a permit basis to Taylor Mountain. The Sonoma County Regional Parks Department (Regional Parks) and the Sonoma County Agricultural Preservation and Open Space District (District) will ultimately develop a comprehensive park and open space master plan that addresses the natural resources on Taylor Mountain and the appropriate long-term public recreational use of the property as a regional park and open space preserve.

An Initial Study/Mitigated Negative Declaration on the Taylor Mountain Interim Public Access Permit Program was released for public and agency review on October 14, 2008, with the comment period open until November 13, 2008. The District received many comments regarding the desire to have Taylor Mountain open not only to hikers, but also to bicyclists and equestrians during the interim period. A public meeting was held on November 6, 2008, at which majority of attendees supported opening Taylor Mountain to multiple users, including hikers, bicyclists and equestrians, although some people expressed concern about the level of impact that would result from allowing multiple uses. Other comments received relate to concern about fire danger, cattle being grazed on the site, and the need for additional traffic analysis of potential impacts on the adjacent neighborhood. Appendix A includes all the comments received and offers responses to the comments.

As a result of the strong sentiments expressed about multi-use access to Taylor Mountain, the District and Regional Parks staff revisited the issue of which users would be allowed. A series of interviews were conducted with individuals representing different user groups and neighbors expressing interest in public access on Taylor Mountain to better understand the viewpoints of these groups. The District is recirculating the Initial Study/Mitigated Negative Declaration on a project revised to allow for multi-use access during the interim period. This Recirculated Draft Initial Study/Mitigated Negative Declaration (IS/MND) includes a revised Project Description that now analyzes potential environmental impacts from multi-use access with wet weather closure of trails to protect sensitive environmental resources. A traffic analysis was conducted for the revised project in response to the stated concerns. The District is in communication with CALFIRE regarding fire hazard. Issues related to livestock grazing on the site will be evaluated in the process of preparing the Master Plan and associated environmental document.

1.2 Project Location

Taylor Mountain is located approximately two miles southeast of downtown Santa Rosa, as shown in Figures 1 and 2, adjacent to the Kawana Springs neighborhood. The District has acquired in-fee a number of properties that encompass portions of Taylor Mountain, totaling approximately 1,100 acres. These properties include the Russell, Nunes and Bath/Watt properties to the north, and the Matteri property to the west. The Interim Public Access Permit

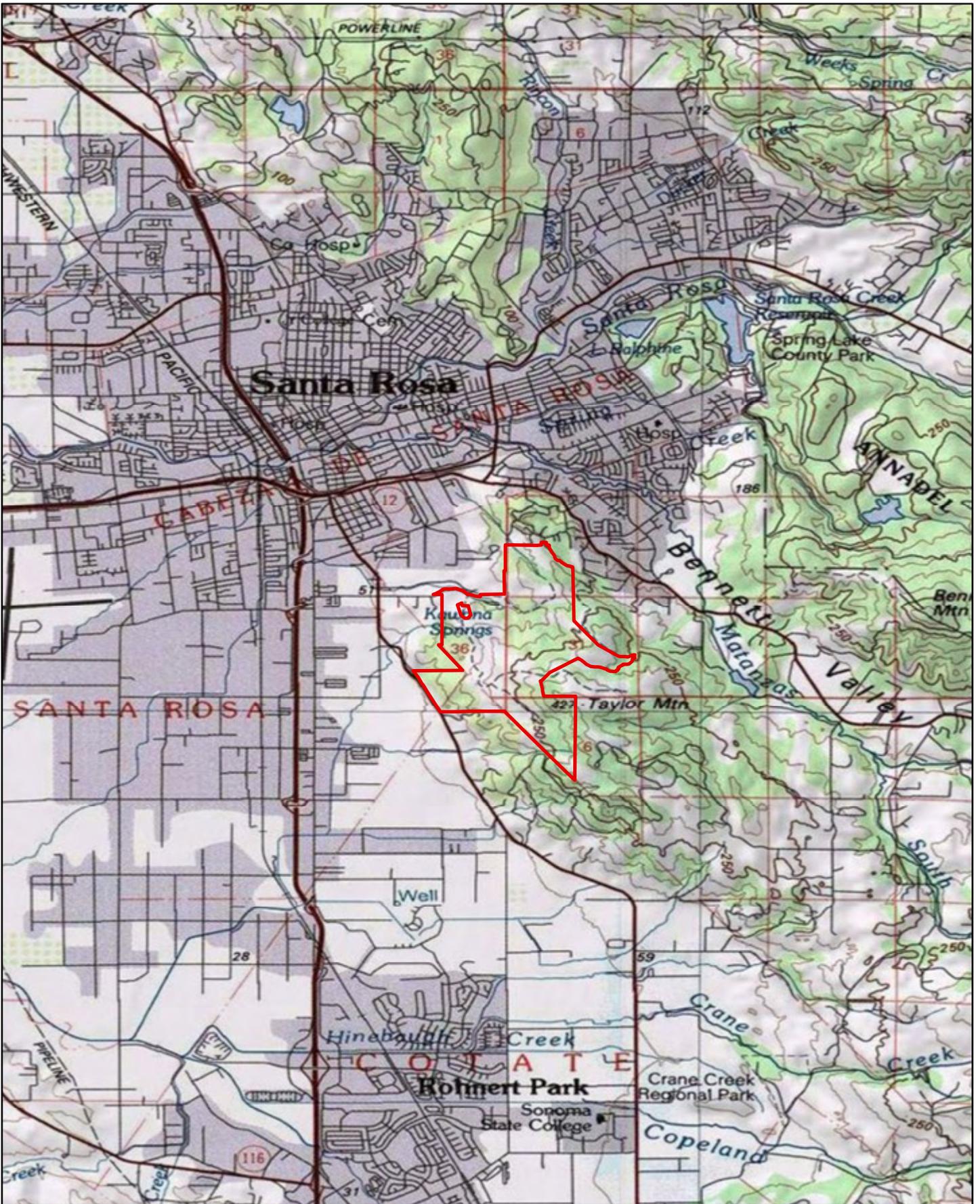


Figure 1 Proposed Project Location

Map Date: 7/16/2009

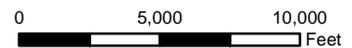
Sources: US topo maps

This map is for illustrative purposes only and is not intended to be a definitive property description.



Taylor Mountain Interim Public Access
Permit Program
Santa Rosa, California

 Property Site Boundary



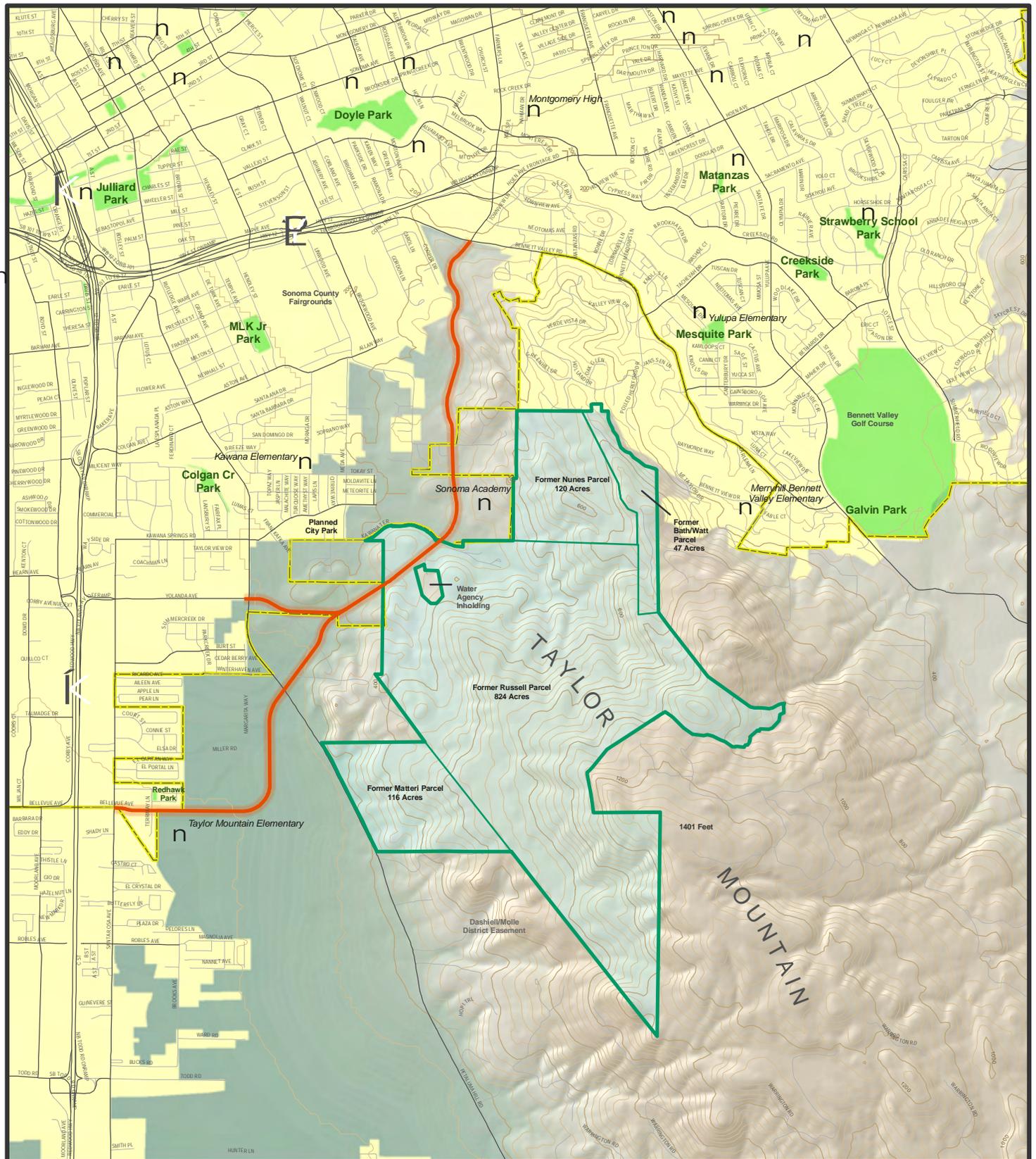


Figure 2
Taylor Mountain Properties
and Vicinity



AREAS

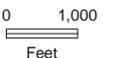
- Taylor Mountain Properties
Total Area: 1107 Acres
- Dashiell/Molle Conservation Easement
- Existing City Park
- Proposed City Park
- Developed Land
(1 unit per 1.5 acres)

NATURAL FEATURES

- Contours
- Index (200 ft interval)
- Intermediate (40 ft interval)
- Stream

CITY OF SANTA ROSA

- City of Santa Rosa Limit
- Proposed Farmers Lane Extension
- School



Map date: 7/28/09
 Sources: USGS,
 Sonoma Co. GIS Dept.
 City of Santa Rosa Community
 Development Department

Program is proposed for the Russell property, located at the terminus of Kawana Terrace, referred to hereafter as Taylor Mountain. The parcels that comprise this property include APNs: 044-061-025; 044-061-033; 044-180-025; 044-180-026; 044-180-027; and 049-170-040.

1.3 Project Need and Objectives

The objective of the proposed project is to allow permitted public access to Taylor Mountain as soon as possible. The project allows interim use of Taylor Mountain until a detailed master plan for long term public recreation is developed and approved.

1.4 Existing Conditions

1.4.1 Existing Site Conditions

Taylor Mountain consists of coastal oak woodlands, annual grassland, and wetlands. It also has some areas of wet meadow, resulting from springs and seeps on the property. In addition, several seasonal creeks and drainages are located on the property, supporting riparian vegetation. Habitats on the site support a wide variety of wildlife and bird species.

The majority of the property is open space, with occasional fencing to allow ongoing use of the property for grazing. Currently, the property supports approximately thirty head of cattle during the summer months; additional cattle are brought to the site during the spring when there is more grass available and a greater need to reduce the fire fuel load.

The Sonoma County Water Agency has two water tanks on a separate parcel in the northwest portion of the Taylor Mountain property. The tanks are part of an in-holding parcel that has a fenced perimeter.

Existing structures on Taylor Mountain include a bathhouse built in approximately 1876 and subsequently used as a residence that is no longer occupied, and a second residence west of the bathhouse that is currently occupied.

1.4.2 Planning and Zoning

The Sonoma County 2020 General Plan Land Use map designates Taylor Mountain as Resource and Rural Development (RRD).¹ The site is zoned RRDWA, Resources and Rural Development (Agricultural Preserve).² (Please note that references are located at the end of each chapter.)

1.4.3 Surrounding Land Uses

Land uses surrounding the project area consist of the Kawana Springs neighborhood to the northwest; Sonoma Academy to the north; Bennett Valley residential neighborhoods to the northeast; privately-owned agricultural acreage to the east; and privately-owned agricultural properties and a landscaping materials supply yard to the west.

1.5 Project Characteristics

1.5.1 Permit Program and Assessment

The Permit Program would allow a maximum of 2,500 permits to be issued to interested public members who attend an orientation and stewardship training regarding the appropriate use of the property. Permits would be issued and released gradually, in groups of 500 per calendar quarter, as members of the public go through the orientation until the cap of 2,500 is reached. Permits would be allocated on a first-come, first-serve basis. Each person who obtains a permit would be allowed to bring up to three guests to the site at any given time.

One component of the orientation is instruction for permit holders to provide feedback regarding the use of the property and the condition of the trails. Such feedback could include constraints in available parking, excessive wear on trails resulting in erosion, conflicts with livestock or between user groups, or other issues that could affect continued issuance of permits. The Permit Program could then be modified in order to ensure protection of the environmental and cultural resources on the property. Permits could be revoked or suspended, the number of permits being issued could be reduced, and/or the routes and timing that areas of the property are open to the public could be modified. Changes made would be limited to those that are more protective of environmental and cultural resources, or that address nuisance-related concerns on site or in relation to the surrounding communities. Information from permit holders would also be used as input for the development of the master plan for the long-term use of the site.

1.5.2 Permitted Users and Permitted Routes

The proposed project would allow permit holders to hike on pedestrian-only mowed paths, which include a western route, an eastern route and a connector. Hikers, bicyclists and equestrians would be allowed on the existing ranch roads. Figure 3 identifies the pedestrian paths and ranch roads permitted for public access on Taylor Mountain.

- **Western Route:** The western route follows the ranch road which generally runs parallel to the western property boundary, leading to a spring and southern portions of the property. There is potential for optional pedestrian-only paths along this route. This western route would be closed to bicyclists and equestrians until stabilization of two creek crossings is implemented, and to hikers during wet weather.
- **Eastern Route:** The eastern route zigzags around the eastern ranch road, which generally follows the ridgeline and leads to the top of Taylor Mountain. The switchbacks provide a gentler grade for hikers, while the ranch road has a steep incline in places.
- **Pedestrian Connector:** A pedestrian-only path connects the western and eastern routes. This connector traverses a wetland area and is closed to bicyclists and equestrians year-round, and to hikers in wet weather.
- **Pedestrian Access:** A pedestrian-only path provides access to hikers from Kawana Terrace to the staging area.

1.5.3 Access and Parking

Permit holders would be allowed on the property during daylight hours, from sunrise to sunset. Occasional special guided events and outings, such as a Fourth of July hike and moonlight hikes, would be allowed during evening hours.

Access to Taylor Mountain would be from Kawana Terrace. The existing driveway from Kawana Terrace onto the property would be improved and a pedestrian gate would be installed at the property boundary, across from the future proposed City of Santa Rosa Kawana Community Park, as can be seen in Figure 3. A path would be mowed to allow pedestrian access onto the property and up to the staging area without walking along Kawana Terrace to the driveway. Use of alternative modes of transportation to the site, such as bicycles and walking, would be encouraged for all participants, and, particularly for those living within ½-mile of the trailhead.

The existing staging area would be formalized at the flat area near the water tanks, as shown in Figure 4. The area is currently used for parking and staging during occasional outings and special events. A total of 48 parking spaces for vehicles, eight equestrian trailers, and two spaces for disabled use, would be available at this staging area, as well as bicycle racks and hitching posts for horses. Parking would be available on a first-come, first-served basis. If parking becomes constrained, permits would be limited or automobile access would be permitted on an odd/even day of the week, or a similar limitation instituted to reduce daily parking demand.

In addition, sixty-six (66) spaces for vehicles are available in the wider project vicinity along Kawana Terrace, the creek side of Kawana Springs Road, and along the future park side of Meda Avenue where the City Kawana Community Park is proposed to be located.

1.5.4 Proposed Improvements

The following improvements are proposed in order to allow hikers, bicyclists and equestrians on the property.

Improvements to the access roads include:

- Widening of the existing gravel road to 24 feet from the entrance gate at Kawana Terrace to the proposed staging area, with a widening to 30 feet at the gate.
- Accepting vacation of Kawana Terrace from east of Meda Avenue to the terminus of Kawana Terrace, which would add this portion of the road to the park property. The District will submit an application to the City of Santa Rosa to allow for vacating Kawana Terrace.

Installation of fencing, including a fence from Kawana Terrace on both sides of the driveway and around the perimeter of the staging area to separate cars from cows.

Installation of gates, including:

- One solar-powered, self-closing key card gate at the entrance to the property from Kawana Terrace that allows drivers to remain in the vehicle while the gate opens and closes. Permit users would get the key code at the orientation.

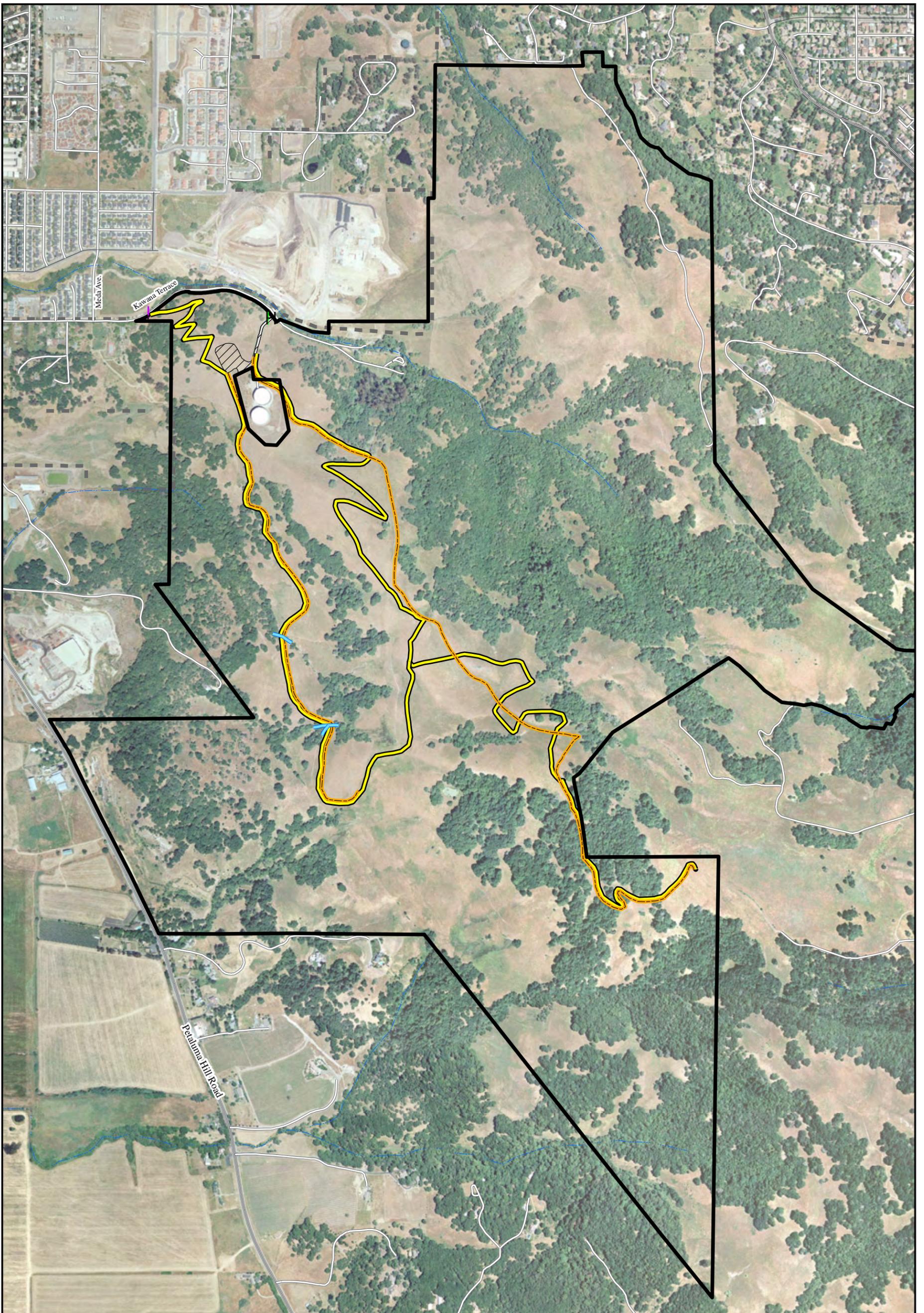


Figure 3
Proposed Interim Public Access



Taylor Mountain Interim Public Access
Permit Program
Santa Rosa, California

- Ranch road (multi-use)
- Mowed path (pedestrian only)
- Drainage improvement area
- Staging area / driveway
- Property boundary
- City limits
- H Self-closing gate
- H Pedestrian gate

0 500 1,000 2,000
Feet

Map Date: 7/16/2009
Sources: Digital Globe, April 2007 (aerial);
Sonoma County GIS (roads, streams, parcels).
This map is for illustrative purposes only and is
not intended to be a definitive property description.



Figure 4
Proposed Driveway and Staging Area

- One pedestrian gate at Kawana Terrace at the western corner of the property. There would be a combination lock on this gate; permit users would get the combination for the lock at the orientation.
- Two self-closing farm gates in the staging area perimeter fence to allow hikers, bicyclists and equestrians access the trails and ranch roads.
- Two locked farm gates in the staging area perimeter fence to allow emergency vehicles access to the property.
- One locked gate along Kawana Terrace east of Meda Avenue at the point the City of Santa Rosa vacates the road. This gate would generally be left open during the daytime and closed at sunset by Regional Parks.

Preparation of the staging area includes:

- Grading the staging area and laying a base of compacted gravel.
- Paving two wheelchair-accessible parking spaces and loading area.
- Installing a bicycle rack, hitching posts and manure bunkers.
- Installing an informational kiosk.
- Installing a chemical toilet, and trash and recycling containers.
- Installing picnic tables outside of the fenced perimeter of the staging area underneath the trees.

Trail improvements include:

- Creating a four-foot wide compacted gravel pedestrian path along the north side of Kawana Terrace east from Meda Avenue for approximately 350 feet, and along the south side of Kawana Terrace for approximately 100 feet, leading to the pedestrian gate on the Taylor Mountain property. A signed and striped pedestrian crossing of Kawana Terrace would connect the two path segments. The pedestrian path would be separated from Kawana Terrace with recycled yellow plastic parking bumpers, which would be placed at least six inches apart in order to maintain the existing drainage from the road.
- Placing signage to identify the pedestrian and multi-use access routes. Sign placement would not require digging or other ground-disturbing activities, as they would be stone or carsonite. Carsonite trail markers are constructed of a flexible fiberglass material that is simple to install with a hand tool.
- Improvements at two drainage crossings to stabilize the channel. This may include armoring, which requires soil in the channel bottom and sides be loosened mechanically with hand tools. Flat stones are then pressed into the loosened soil to provide firm trail tread that allows water to flow across it during storm events.

1.5.5 Protection of Environmental Resources

The proposed interim public access routes and improvements have been designed to ensure protection of environmental resources on the site. Ranch roads would be closed after the start of the winter rains to minimize deep incisions and potential scaring of the hillsides. Use of the connector route would be limited to hikers to minimize potential damage to wetland areas. Armoring of two drainage crossings would be done to protect these areas from the effects of bike tires and horse hooves. Use of the existing staging area for parking would minimize disturbance to the site. The existing knolls screen the cars at the staging area from most locations. Use of post and open-wire wildlife-friendly fencing along the access road and around the staging area

would maintain the agricultural character of the site. Dogs would not be permitted on site to avoid disturbance of wildlife or cattle. Erosion control and reseeding would be conducted as needed to maintain the designated trails.

1.5.6 Emergency Response, Fire Protection and Security

No smoking or campfires are allowed on Taylor Mountain. This will be emphasized in the orientation, listed in the rules and regulations, and included on the informational kiosk. In the case of emergency, vehicles such as fire trucks and ambulances are able to access Taylor Mountain via Kawana Terrace. On the property itself, the ranch roads are available for emergency access.

Emergency response would be provided on an as-needed basis by the County Sheriff's office. Although the property is located in the Bennett Valley and the Rincon Valley Fire Protection Districts, the City of Santa Rosa Fire Department would be the first responder, as it has the closest fire station. Since the project site is located within a State Responsibility Area, CalFIRE also provides wildland fire protection services.³

The Sonoma County Regional Parks Department would patrol the property on a regular basis. In addition, there is a Volunteer Patrol program organized for Taylor Mountain in which trained volunteers hike the trails on the property to report on trespass, resource or safety issues. Members of the Volunteer Patrol also identify constrained parking conditions, vandalism, fences in need of repair, erosion along trails, adverse conditions to wildlife or to environmental or cultural resources, and/or other conditions that warrant immediate or periodic attention. They would also monitor any issues or concerns related to the three different user groups (hikers, bicyclists and equestrians) sharing the trails.

1.6 Alternatives Considered For the Proposed Action

Alternatives considered for the proposed project include:

(1) The **No Project Alternative**, which would consist of not allowing additional public access to the Taylor Mountain property during the interim period. This alternative was rejected because it would not meet the goals of providing public access to Taylor Mountain as soon as possible.

(2) The **Project as Proposed with an Additional Parking Lot** developed at the future Kawana Community Park site. This alternative would double the amount of new vehicle parking spaces provided from 48 to 96. This alternative was considered but rejected. The City of Santa Rosa is in the process of designing facilities including possible sport fields and/or a running track. Plans for Taylor Mountain access or a potential parking area are not clear at this time. As a result, this alternative is not being considered as part of the proposed project.

1.7 Required Permits and Approvals

The proposed project would require approval by the District Board of Directors/Sonoma County Board of Supervisors. Vacation of the roadway would require approval by the City of Santa Rosa City Council. An encroachment permit from the City of Santa Rosa would be required for

pedestrian improvements along Kawana Terrace. Trail improvements would likely require permits from the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and potentially the California Department of Fish and Game.

1.8 Project Funding

The project would be funded as a District project through its existing sales tax measure (Reauthorized as Measure F in November 2006).

1.9 Timeline for Project Implementation

It is anticipated that the Interim Public Access Permit Program would be initiated approximately one month following action by the District Board of Directors/Sonoma County Board of Supervisors. It is anticipated that action on the project would be taken during the fall of 2009 and that the Permit Program would commence soon thereafter.

1.10 Other Projects Proposed in the Vicinity

The City of Santa Rosa has started planning for the Kawana Community Park, located at the corner of Meda Avenue and Kawana Springs Road. This community park would be connected to the Taylor Mountain site by way of a path along Colgan Creek and/or along area roadways. It is anticipated that parking at the future community park site would also provide some parking for the future Taylor Mountain Regional Park. The planned Farmers Lane Extension, which would connect the existing Farmers Lane north of the site and Yolanda Avenue southwest of the site, would traverse the northwest portion of the Taylor Mountain property in the vicinity of the staging area. Additional residential development projects have been approved in the vicinity of Farmers Lane near Sonoma Academy, and along Tokay Street and Brookwood Avenue. Some additional development will also take place at Sonoma Academy to accommodate an ultimate student enrollment of 450 to 650 students.⁴

¹ Sonoma County 2020 General Plan, Map LU-2e, Adopted September 2008.

² Sonoma County Zoning Map.

³ Telephone communication with Chuck Abshear, Operations Division Chief for Sonoma County, CalFIRE, July 29, 2009.

⁴ Walt Laabs, P.E., Traffic Impact Study Update for Sonoma Academy High School, October 2004.

2. Environmental Checklist

1. Project title:

Taylor Mountain Interim Public Access Permit Program

2. Lead agency name and address:

Sonoma County Agricultural Preservation and Open Space District
747 Mendocino Ave, Suite 100
Santa Rosa, CA 95401

3. Contact person and phone number:

Sara Press
Associate Open Space Planner
(707) 565-7360

4. Project location:

The proposed project is located on Taylor Mountain in southeast Santa Rosa, at the terminus of Kawana Terrace.

5. Project sponsor's name and address:

Sonoma County Agricultural Preservation and Open Space District
747 Mendocino Avenue, Suite 100
Santa Rosa, CA 95401

6. **General plan designation:** The proposed project is located in an area that is designated as Resource and Rural Development (RRD) in the Sonoma County General Plan 2020. It is also designated as a Scenic Landscape Unit and a Proposed Park.
7. **Zoning:** The proposed project site is zoned Resource and Rural Development (RRDWA (Agricultural Preserve)), with one d.u./40-acre density.
8. **Description of project:** The project consists of allowing mixed-use access to Taylor Mountain on an interim basis while a master plan is being developed for the site. Program participants would receive a permit for the interim period after going through an orientation and stewardship training. Hikers would be allowed to use the mowed path and ranch roads. Hikers, bicyclists and equestrians would be allowed use the ranch roads. A maximum of 2,500 permits would be distributed during the interim period. Each permit holder would be entitled to bring up to three guests at any one time to the site (See Chapter 1 for the complete Project Description
9. **Surrounding land uses and setting:** Land uses surrounding the project area are primarily agricultural and residential. A private school, Sonoma Academy, has recently been constructed directly north of the site. The City of Santa Rosa owns a parcel adjacent to the Taylor Mountain property to the northwest, where it plans to develop a community park (Kawana Community Park). The Sonoma County Water Agency has an in-holding parcel, accessible from Kawana Terrace, that contains two water storage tanks. Active agricultural uses are located to the west of the site along Petaluma Hill Road, and to the east, along the eastern slopes of Taylor Mountain.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Vacating a portion of Kawana Terrace would require approval by the City of Santa Rosa City Council. The project, however, could move forward without this action. An encroachment permit would be required for the pedestrian improvements on Kawana Terrace. Any impacts to wetlands would require permits from the U.S. Army Corps of Engineers and the Regional Water Quality Control Board, in consultation with the California Department of Fish and Game.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

NONE

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared By:

Nancy Dakin 8-20-09
Nancy Dakin Date
Environmental Planner

Reviewed By:

Sara Press 8/20/09
Sara Press, AICP Date
Associate Open Space Planner

I concur with the findings and conclusions above.

William J. Keene 8/20/09
William J. Keene, AICP AGM Date
Interim General Manager

CEQA GUIDANCE

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses" as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

- 7) **Supporting Information Sources:** A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question;
and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.1 AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

a. Effect on Scenic Vistas

The Taylor Mountain property is part of a Scenic Landscape Unit, as identified in the Sonoma County General Plan.¹ (Notes are located at the end of each chapter.) The property has been used as a ranch since the latter half of the 1880s when John Taylor first had a herd of dairy cows and planted one of the first vineyards in the area.² The mountain thus has a number of unpaved ranch roads accessing all areas of the property, and over time, cattle have worn trails through the grassland. These roads and trails are only slightly visible from the U.S. Highway 101 corridor, State Route 12, and some of the surrounding neighborhoods. Figure 5 depicts Taylor Mountain as viewed from downtown Santa Rosa.

The paths mowed for hikers would result in minimal visual impact, as they would look like the existing ranch roads and cattle trails as viewed from the highway corridors and surrounding neighborhood. The ranch roads would be closed in wet weather, thus preventing potential visible scarring from bicycle tracks or horse hooves. Clear trail markings would identify which user groups are allowed on specific trails and ranch roads in order to avoid bicyclists and equestrians using the pedestrian paths as well as to avoid creation of new routes. Therefore, low-intensity recreational use of Taylor Mountain on a permitted basis by hikers, bicyclists and equestrians would not have a substantial adverse effect on the scenic vistas of Taylor Mountain. (Less-than-Significant Impact)

b. Potential Damage to Scenic Resources

As indicated above, most of the project area is identified as part of a Scenic Landscape Unit in the Sonoma County General Plan. Allowing interim use of Taylor Mountain would allow hiking on a designated mowed path, and hiking, bicycling and horseback riding on existing ranch roads. These routes are already in place and provide access to scenic areas of the mountain without adversely affecting resources, including scenic resources. As stated under (a) above, use of ranch roads during wet-weather periods could result in potential scarring of the hillside with deeply incised tracks; therefore, use of existing ranch roads by bicyclists and equestrians would be limited to dry periods. Some trail closures (i.e., both the eastern and western routes depicted on Figure 3 in the Project Description) would be required seasonally, starting after the first rains, to ensure protection of resources (see also Section 2.4, Biological Resources, below). (Less-than Significant Impact)



Figure 5. View of Taylor Mountain from downtown Santa Rosa

c. Effects on Visual Character

Allowing interim access to Taylor Mountain would not result in degradation of the visual character of the site. Some automobiles parked at the staging area would be visible but would not be visually obtrusive, as they would generally be blocked by the adjacent knoll. Some vehicles would be visible from off-site locations such as Kawana Springs Road, as seen in Figure 6. The vehicles at the staging area would also be visible from some locations on the Taylor Mountain site, generally from above the staging area, but this would not substantially degrade the visual character of the site or wider landscape. Similarly, fencing along the access road and parking area would be visible from off-site locations north of the property; however, there is existing fencing along the property boundary at Kawana Terrace and around the SCWA parcel, and the proposed post and open wire fencing around the driveway and staging area would be of a style compatible with the agricultural setting. (Less-than-Significant Impact)

d. Effects Related to Light or Glare

Allowing interim use of Taylor Mountain would not result in substantial light or glare. No lighting would be provided at the staging area, on trails or on ranch roads. Some glare could occur from the additional automobiles visible from adjacent residences and Kawana Springs Road and Sonoma Academy. Glare would generally occur as the afternoon sun hits the cars; however, views of the staging area would be largely screened by the existing knoll. Therefore, this impact would not be considered potentially significant. (Less-than-Significant Impact)



Figure 6. Looking south toward the driveway and staging area

Mitigation Measures:

None required.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.2 AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of conservation as an optional model to use in assessing impacts on agriculture and farmland.

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

Discussion:

a. Farmland Designation

The site is categorized as “Grazing Land” on the Sonoma County Important Farmlands Map (2004),³ and the proposed project would continue to allow grazing on the site. Therefore, implementation of the proposed project would not result in the conversion of prime agricultural land to other uses, and thus, there would be no impact. (No Impact)

b. Williamson Act Lands

The site is zoned Resource and Rural Development (Agricultural Preserve) (RRDWA). The proposed project allows for grazing and thus would not conflict with the zoning designation or a Williamson Act contract. (No Impact)

c. Farmland Conversion

Implementation of the proposed project would support continued active grazing on the site, and therefore, would not result in conversion of farmland to non-agricultural use. (No Impact)

Mitigation Measures:

None Required.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- e) Create objectionable odors affecting a substantial number of people?

Discussion:

a. Implementation of Air Quality Management Plan

The proposed project is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The project is required to be consistent with the BAAQMD's 2000 Clean Air Plan and 2005 Ozone Strategy.⁴

Implementation of the proposed project would not conflict or obstruct implementation of an air quality plan. The Clean Air Plan includes a series of transportation control measures (TCMs) that are designed to achieve air quality standards. This project incorporates many of these measures by addressing bicycle and pedestrian access and providing an open space area close to urban centers, thereby reducing vehicle miles traveled for recreation experiences. (Less-than-Significant Impact)

b. Potential Air Quality Violations

State and national ambient air quality standards have been established for the following pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, fine particulate matter (PM₁₀) and lead. These pollutants are referred to as "criteria pollutants" because they are regulated by developing human health-based and/or environmentally-based criteria for setting permissible levels. For some of these pollutants, notably ozone and PM₁₀, the State standards are more stringent than the national standards. The State has also established ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles.

The San Francisco Bay Area is currently a nonattainment area for the State 8-hour and 1-hour ozone standards, and the federal 8-hour ozone standard. It is also nonattainment for the State Annual and 24-hour standards for fine particulate matter (PM₁₀).⁵ In addition, the Bay Area Air Basin will be listed in the near future as nonattainment for the federal PM_{2.5} standard.⁶

Exceedences of air quality standards in the Bay Area occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights for particulate matter, or hot, sunny summer afternoons for ozone. Implementation of the proposed project would not violate any air quality standards or substantially contribute to an existing violation, as permitted users, hikers, bicyclists and equestrians, would not contribute to criteria pollutants. The project could even result in reduced emissions over the existing condition by opening an open space area that is close to population centers, therefore, allowing people to hike and bicycle to the site.

During the construction period, limited grading of the staging area and widening of the access driveway off Kawana Terrace would result in increased dust, which is one source of PM₁₀. Vehicle emissions would also increase during construction, and motor vehicles are the largest source of ozone precursor emissions in the Bay Area. However, implementation of Mitigation Measure 3-1 would reduce potential impacts of grading and use of construction vehicles and equipment to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

c. Cumulatively Considerable Increases in Criteria Pollutants

As stated above, the Bay Area Air Basin is a nonattainment area for State and federal ozone standards and the national particulate matter standard (PM₁₀). Construction vehicles and equipment at the project site, and vehicles traveling to and from the project area during the interim period, would result in some emissions creating precursors to ozone, and dust contributing to regional PM₁₀ levels. These emissions, however, would be relatively minor. The project would likely result in a net decrease in vehicle miles traveled (VMT) due to provision of publicly-accessible open space in close proximity to the cities of Santa Rosa and Rohnert Park. Permitted users would be encouraged to use non-motorized transportation to reach the staging area and trailhead at Taylor Mountain, thereby minimizing automobile travel and associated emissions, and reducing greenhouse gases over the long-term. In particular, residents living within ½ mile of the Taylor Mountain trailhead, unless disabled, would be strongly encouraged to use alternative modes of transportation to access the project site. Therefore, the project would not result in cumulatively considerable increases in criteria pollutants, and could even result in a decrease in these pollutants. (Less-than-Significant Impact)

d. Exposure of Sensitive Receptors to Substantial Pollutant Concentrations

Sensitive receptors are members of the population that are most vulnerable to potential impacts, which are generally children and the elderly but can include residents near project areas. The proposed project would not result in generation of substantial pollutant concentrations and would therefore result in no impacts to sensitive receptors. (No Impact)

e. Objectionable Odors Affecting a Substantial Number of People

Use of designated trails and existing ranch roads by hikers, bicyclists and equestrians would not result in the creation of objectionable odors. (No Impact)

Mitigation Measures:

3-1: The following measures shall be implemented during grading of the staging area:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, gravel, crushed rock and/or other loose materials, or require trucks to maintain at least two feet of freeboard.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Operate all construction vehicles and equipment with emission levels that meet current air quality standards and minimize idling time to 15 minutes for all heavy equipment to reduce on-site emissions during construction.
- Replant disturbed areas as quickly as possible, and always prior to the winter rains.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.4 BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the DFG or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, <i>etc.</i>) through direct removal, filling, hydrological interruption or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

Circuit Rider Productions, Inc. (CRP) completed two botanical surveys of the Taylor Ranch properties, in June 2006 and January 2007, covering the Russell property (823 acres), the Nunes property (120 acres), the Bath-Watt property (47 acres) and the Matteri property (116 acres)⁷ (see Appendices B and C).

a. Special Status Plant and Wildlife Species

Taylor Mountain forms the edge of the Santa Rosa Plain and contains upland habitat which could support birds such as the California yellow warbler, yellow-breasted chat, black-shouldered kite and osprey. Other potential wildlife in the wider region includes California freshwater shrimp,⁸ red-legged frog, yellow-legged frog, northwestern pond turtle and steelhead. Moist areas within Coastal Oak Woodlands are known to be habitat for the endangered red-legged frog, although no observations were recorded on the California Natural Diversity Database (CNDDDB). No endangered, threatened, rare or sensitive animal species are mapped within the project area.⁹ There are also no salmonids in the part of Colgan Creek adjacent to the site because at downstream locations the creek is lined with concrete and has been straightened into a flood control channel, resulting in water temperatures that are too high to support these fish.

The California Native Plant Society (CNPS) lists 18 special-status plants occurring within the Santa Rosa Quadrangle, in which Taylor Mountain is located. However, most of these species occur primarily within vernal pools on the Santa Rosa plain or on serpentine soils associated with chaparral vegetation. These habitats were not encountered on the property and no special-status plant species were evident during the field survey conducted in June 2006.¹⁰ The only sensitive plant species listed in the vicinity is the saline clover (*Trifolium depauperatum*), which is found on the Nunes and Bath/Watt parcels located north of the project area.¹¹

The California tiger salamander (CTS) is generally found on the Santa Rosa Plain. A portion of the Taylor Mountain property is listed by the California Department of Fish and Game as an area where “the presence of CTS is not likely and there are no listed plants in this area.”¹² The U.S. Fish and Wildlife Service’s Programmatic Biological Opinion for the U.S. Army Corps of Engineers notes that areas above approximately 300 feet in elevation and characterized by oak woodland, or are adjacent to or surrounded by significant urban areas, generally have been excluded from the boundaries of the conservation areas.¹³ Grading of the staging area would occur at approximately 300 feet elevation. The area is in oak woodland, adjacent to an urban area, and has been compacted by use for ranching operations and for parking for special events; therefore, grading and using the staging area for parking would not result in a substantial adverse effect on CTS.

A wildlife survey of the Taylor Mountain property was conducted in September, 2000.¹⁴ The survey was focused on special-status wildlife species potentially associated with the wetland features present on the property (seeps, wet meadows, seasonal streams), as well as with the upland habitats (annual grasslands, oak woodlands). No special-status species were observed in the project area. However, it is likely that some birds and bats listed as sensitive species use the property at one time or another during the year. Non-sensitive mammals observed during the site visit include Blacktail jackrabbit, California vole, Gray fox, Mule deer and the Western gray squirrel.

Both Colgan Creek and Santa Rosa Creek are occupied by northwestern pond turtles downstream from the Taylor Mountain property, which could migrate upstream onto the property during the wet season.¹⁵ At other regional park and open space areas, such as Spring Lake Park and Annadel State Park, these species are known to co-exist with people using the parks. Many of the species are also nocturnal; their periods of greatest activity occur at night when people are not present on the site. In addition, no lighting would be added to the staging area or any other part of the project area, consistent with objectives of minimizing use of outdoor lighting that could disrupt native wildlife movement activity. (Less-than-Significant Impact)

b. Riparian Areas or Other Special Plant Communities

According to Circuit Riders Productions’ 2006 and 2007 botanical studies, Coastal Oak Woodland, Annual Grassland and Montane Riparian are the three primary habitat types on the property.

The Coastal Oak Woodland habitat type occurs throughout the property, and is the dominant habitat type. Coast live oak (*Quercus agrifolia*) and Oregon oak (*Quercus garryana*) are the dominant tree species, with California bay-laurel (*Umbellularia californica*), California buckeye (*Aesculus californica*) blue oak (*Quercus douglasii*) black oak (*Quercus kelloggii*) Douglas-fir (*Pseudotsuga menziesii*) and Pacific madrone (*Arbutus menziesii*) as associates. Big-leaf maple (*Acer macrophyllum*) and Oregon ash (*Fraxinus latifolia*) occur in some of the dryer areas.

The Annual Grassland habitat type is widespread and consists of primarily annual grasses and forbs. Non-native annual grasses are the dominant plants within this habitat type. Also occurring are annual forbs, including many native and non-native wildflowers, perennial native grasses and an occasional tree or shrub.

The 'Montane Riparian' habitat type is highly variable and structurally diverse. The ephemeral streams on the properties are typically dominated by California bay laurel (*Umbellularia californica*), and coast live oak (*Quercus agrifolia*), with California buckeye (*Aesculus californica*), Big-leaf maple (*Acer macrophyllum*), and Oregon ash (*Fraxinus latifolia*) as associates. Willows (*Salix lasiolepis* and *Salix exigua*) and cottonwood (*Populus fremontii*) occur, as well as the species mentioned above, along the perennial stream located near the western property boundary.

A number of drainages traverse Taylor Mountain, some of which flow under the existing ranch roads in culverts while some flow over the road. Cattle grazing on the site currently cross these drainages, as would hikers, bicyclists and equestrians using the existing ranch roads. There are two crossings on the western route, as identified in Figure 4 in the Project Description, that would be stabilized, likely by armoring the trail tread, before bicyclists and equestrians would be allowed to use the route. Although some rocks and soil could shift as hikers cross the creeks during periods of wet weather, there is minimal vegetation in these locations, and thus would not result in substantial adverse effects to the riparian areas. (Less-than-Significant Impact)

c. Federally Protected Wetlands

The property is characterized by seasonally wet areas that are categorized as Wet Meadow in Circuit Riders Productions' 2006 Botanical Study, and as mapped in Figure 7. This habitat is considered sensitive because wetlands are regulated under Section 404 of the Clean Water Act. These wet areas result from seeps and topography that collect water in basins along the slopes of Taylor Mountain. Wet Meadows on the property are generally surrounded by the Annual Grassland habitat type, and are primarily associated with upland springs and seeps. Wet Meadows typically occur where water is at or near the surface for the majority of the growing season. The soils, although they have little or no standing water, have a slow rate of permeability and are often colonized by wetland species.¹⁶

The Lacustrine habitat type is also found on the property.¹⁷ Lacustrine habitats are inland depressions, or dammed channels, containing standing water. They are often classified as ponds and/or reservoirs. Vegetation consists of phytoplankton suspended in water. Lacustrine habitats are used by a variety of wildlife, including mammals, birds, reptiles, amphibians and invertebrates. The pond on the property is frequented by cattle, which have impacted the surrounding vegetation.

The mowed pedestrian trail alignment has been developed to avoid Wet Meadow and Lacustrine habitat areas; however, some portions of the western route sustain some wet conditions on a seasonal basis, requiring some trail closures during wet weather periods. The ranch roads would be closed to bicyclists and equestrians for winter months following the first rainfall. (Less-than-Significant Impact)

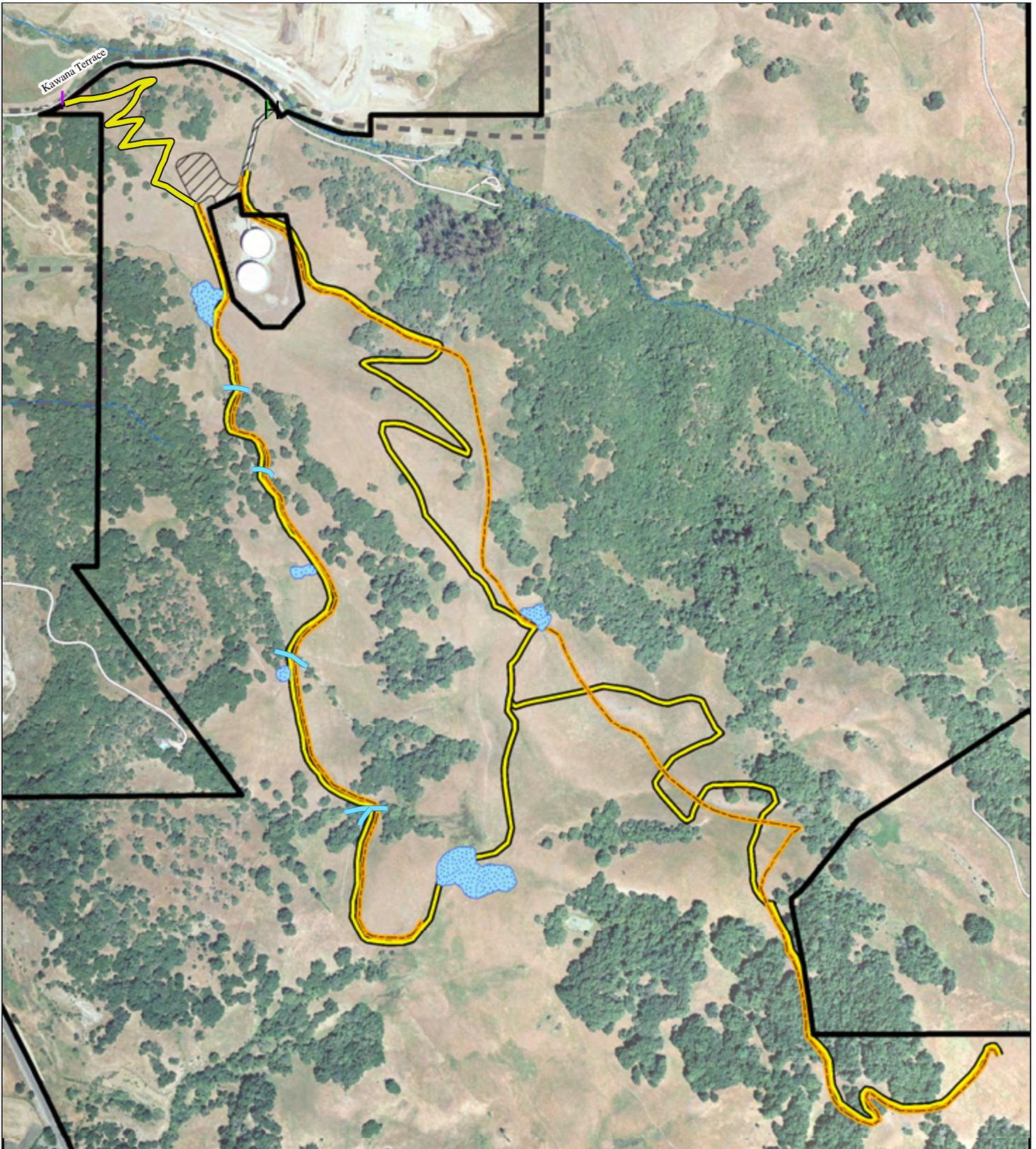


Figure 7
Wetlands and Drainages



Taylor Mountain Interim Public Access
Permit Program
Santa Rosa, California

- Ranch road (multi-use)
- Mowed path (pedestrian only)
- Drainage
- Wetland area
- Staging area / driveway
- Property boundary
- City limits
- Self-closing gate(s)
- Pedestrian gate(s)

0 390 780 Feet

Map Date: 7/16/2009
Sources: Digital Globe, April 2007 (aerial);
Sonoma County GIS (roads, streams, parcels).
Wetland Delineation: Lucy Macmillan,
Environmental Scientist
All drainage areas are digitized.
This map is for illustrative purposes only and is
not intended to be a definitive property description.

d. Resident or Migratory Fish or Other Wildlife

Within the project area, streams are intermittent, precluding the possibility of a migratory population of salmonids or resident trout. The ephemeral streams do not provide adequate habitat for fish during the warm summer months. Other wildlife such as deer, mountain lions, raccoons, opossums and skunks can use the seasonal drainages as movement corridors because water is available in some wet areas on the mountain and in troughs for cattle. While cattle would continue to graze on the property under the proposed project, dogs would not be permitted on the site. Thus, any potential impacts to fish or wildlife would be less than significant. (Less-than-Significant Impact)

e. Local Policies Protecting Biological Resources

The project would be consistent with Sonoma County General Plan 2020 policies related to oak woodlands, wetlands, stream corridors, and wildlife. The proposed project would not permit bicyclists and equestrians on the pedestrian paths due to the proximity of wetlands, while armoring of drainage crossings would maintain the integrity of the stream channels for these users. The proposed project would utilize wildlife-friendly fencing around the access road and staging area, and no night lighting would be used.

The Sonoma County General Plan 2020 supports protection and enhancement of valley oak habitat, which has been identified on the western boundary of the project site near Kawana Terrace and along Colgan Creek.¹⁸ Low-impact recreational use of the site under the proposed project would be consistent with protection of these resources, and no tree removal is proposed.

Sudden Oak Death Syndrome (SODS) is known to affect the oak and bay forests on Taylor Mountain. SODS is generally spread during the spring season by way of wind, animal movement and movement of soil on shoes, hoofs, and bicycle tires. The bay forests are the areas most affected by SODS, but it is also found within the oak woodland areas of Taylor Mountain.¹⁹ While the County does not have specific policies related to SODS, the project orientation for permitted users would provide guidance on minimizing the spread of SODS within the Taylor Mountain property and onto other open space areas. Implementation of Mitigation Measure 4-1 would reduce potential impacts related to biological resources and to the spread of SODS to less-than-significant levels. (Less-than-Significant Impact with Mitigation Incorporated)

f. Habitat Conservation Plan or Natural Community Conservation Plan

The Santa Rosa Plain Conservation Strategy, which has not been adopted or implemented by Sonoma County, addresses California tiger salamander (CTS), which is generally found on the Santa Rosa Plain. The portion of the Taylor Mountain property included in the Conservation Strategy notes that “the Presence of CTS is not likely and there are no listed plants in this area.”²⁰ Furthermore, the proposed uses would not conflict with the Santa Rosa Plain Conservation Strategy. (Less-than-Significant Impact)

Mitigation Measures:

- 4-1 Signs shall be posted requiring precaution regarding the spread of Sudden Oak Death Syndrome (SODS). Transporting oak or bay wood to or away from the site shall be

prohibited. Precautions regarding the spread of Sudden Oak Death will be a component of the orientation program.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.5 CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion:

This section summarizes the Cultural Resources Survey for Taylor Mountain prepared by Tom Origer & Associates in September, 2006.²¹ The study included archival research at the Northwest Information Center and Sonoma State University, contact with the Native American community, and field inspection of the project location. Cultural resource sites include stone fences, the previous resort area and two prehistoric sites. Additional maps prepared by Tom Origer & Associates of cultural resources located within 200 feet of creeks in Santa Rosa were also reviewed for potential impacts to resources in proximity to Colgan Creek as part of the Santa Rosa Citywide Creek Master Plan.²²

a. Historical Resources

The Kawana Springs Resort (formerly known as the White Sulphur Springs Resort), established by John Taylor, was a popular vacation destination for San Francisco residents. The resort was first constructed in 1860 but then burned in 1870. Another hotel was built in the same location and remained until 1935 when it was torn down. Site users permitted to use the property under the proposed project would not have access to the area where the resort was located, and therefore would not impact this historic resource.

Five dry-laid stone fences have been identified on the property.²³ Figure 8 shows one of the fences. The existing trails are located in proximity to two of the fence locations. Use of the trails could result in potential impacts to these fences. The orientation for public access would emphasize the need to maintain appropriate distances from the fences so that they are not degraded or destabilized over time. At the orientation, permitted users would be instructed not to sit on or disturb any of the fences, including not using them as jumps or as any type of technical course.²⁴ Potential impacts to the stone fences would be reduced to a less-than-significant level with implementation of Mitigation Measures 5-1 and 5-2. (Less-than-Significant Impact with Mitigation Incorporated)



Figure 8. Historic stone fences on the Taylor Mountain property

b. Archaeological Resources

Archival research shows that five studies have been performed over the entirety or part of the project area.²⁵ These studies resulted in the finding of four prehistoric sites and one historic fence. Two of four prehistoric sites were found and rerecorded as part of the 2006 survey by Tom Origer & Associates; the other two sites were not found during field investigations. The four prehistoric sites are:

CA-SON-931: This site consists of a sparse scatter of obsidian flakes. It is located at a substantial distance from the mowed trail that would be used by hikers.

CA-SON-945: This site was reported to have consisted of a large obsidian flake scatter in the corner of a grassy meadow. Although multiple efforts were made to locate this site, field survey members were unable to find it.

CA-SON-946: This site consists of a midden and two loci of rock outcrops containing cupules (small cup-shaped structures such as the caps from acorns).

CA-SON-947: This site was reported to have consisted of an obsidian flake scatter. Although multiple efforts were made to locate the site, the field survey members were unable to find it.

The trails are located away from these sites and therefore impacts to the sites are not anticipated; however, if artifacts are encountered, implementation of Mitigation Measure 5-3 would reduce

potential impacts to less-than-significant levels. (Less-than-Significant Impact with Mitigation Incorporated)

c. Paleontological Resources

No paleontological resources are known to exist in the areas proposed for public access as part of the proposed project. (No Impact)

d. Disturbance to Human Remains

No human remains are known to exist on the site. In the event that any evidence of human remains is found during grading of the staging area or widening of the driveway, implementation of Mitigation Measure 5-4 would reduce the potential impact to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

Mitigation Measures:

- 5-1 The orientation for use of the Taylor Mountain site shall include general information about the archaeological resources located on the property and the need to respect the stone fences that remain visible. A brochure or other literature will encourage the public not to sit on, remove stones, or in any other way disturb the fences.
- 5-2 Stone fences shall be inspected by District staff or designated consulting archaeologist on a quarterly basis, or more often if vandalism or other adverse conditions are observed, to ensure that the permitted public access has not resulted in adverse impacts and to address vandalism or other changes in the condition of the fences.
- 5-3 If any potentially-significant archeological deposits or features are discovered, all work in the immediate vicinity of the discovery shall be halted and the discovery evaluated by an archaeologist. Significant deposits will be removed using archaeological methods, or avoided and left in place.
- 5-4 If human remains are encountered, excavation or disturbance of the location shall be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be the most likely descendant from the deceased Native American. The most likely descendant will make recommendations regarding the treatment of the remains with appropriate dignity.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.6 GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42.				
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a. Seismicity

The Bay Area is considered seismically active (Seismic Zone 4) and strong ground-shaking can be expected on the project site. The closest known active faults to the project site are part of the Healdsburg-Rodgers Creek Fault Zone, which extends through the eastern portion of the site (Maximum Credible Earthquake 7.0), and the San Andreas Fault (Maximum Credible Earthquake 8), which is located about 20 miles to the southwest.²⁶ The Rodgers Creek and San Andreas faults are the two principally active Bay Area “strike-slip” faults and have both experienced movement within the last 150 years. Strike-slip faults are those that primarily exhibit displacement in a horizontal direction.²⁷

The Sonoma County General Plan Public Safety Element identifies the slopes of Taylor Mountain as being subject to Very Strong (XIII) and Violent (IX) ground-shaking in the event of an earthquake on the Rodgers Creek Fault. The epicenter of an earthquake in 1969 is also located on the southwestern slopes of Taylor Mountain.²⁸

The eastern public access route crosses the Rodgers Creek Fault Zone,²⁹ and thus, hikers, bicyclists, equestrians and horses would be subject to violent ground-shaking during an earthquake. However, users of the site would be on open land, resulting in minor exposure to adverse seismic conditions. The project does not propose any structures, only installation of only minor improvements, which would generally not be affected by ground-shaking. Implementation of Mitigation Measure 6-1 would reduce potential impacts related to ground-shaking to less-than-significant levels. (Less-than-Significant Impact with Mitigation Incorporated)

b. Soils/Erosion

The soils on Taylor Mountain consist primarily of the Golding series, which are well-drained clay loams.³⁰ These soils are commonly on mountainous uplands with slopes ranging from five to 50 percent. Runoff of Goulding soil is generally rapid and the hazard of erosion is high. Grazing is common on Goulding soils. Other soils on the project site include the Raynor series,³¹ which is commonly found on slopes of nine to 15 percent. These soils are well-drained clays and are found on rolling hills. Sheep and cattle grazing commonly occurs on Raynor soils.

Use of Taylor Mountain for multi-use access has the potential to result in erosion, particularly due to the steepness of some of the trails and ranch roads. In particular, the Golding soil series are prone to erosion. However, seasonal closures of the ranch roads following the start of the winter rains would be implemented. Additional closures of the trails for hiking would be put into place during wet weather periods to minimize erosion. Grading of the staging area also has the potential to result in erosion; however, implementation of Mitigation Measure 6-2 would reduce this potential impact to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

c. Unstable Geologic Units

In the Sonoma County General Plan, most of Taylor Mountain is characterized by areas of relatively unstable rock on slopes greater than 15 percent, with a portion of the mountain also characterized as "Landslide Complex," where previous slope failure has occurred. Additionally, most of the site is identified as an area with high or moderate potential for landslides.³² Many of these areas would not be suitable for development due to unstable geologic units that could result in shifting or movement in foundations; however, use for hiking, bicycling and horseback riding would generally be consistent with these conditions as these uses can avoid specific landslide-prone areas. (Less-than-Significant Impact)

d. Expansive Soils

The proposed project site is characterized by expansive soils;³³ these soils contain clay minerals that greatly increase in volume when they absorb water, and shrink when they are dry. As a result, they exhibit cracks, as depicted in Figure 9. While cracks in the soil present some tripping hazard, use of the trails and ranch roads by hikers, bicyclists and equestrians would not create substantial risk to life or property. In addition, the orientation session for permit users would alert users to the uneven surface conditions along portions of the trail and urge caution when hiking, bicycling or riding in areas characterized by these conditions. (Less-than-Significant Impact)



Figure 9. Deep cracks in soils along portions of the trail

e. Soils Incapable of Supporting Septic Systems

No permanent restroom or septic system would be installed as part of the project. A portable chemical toilet would be placed at the staging area, which would not require a septic system. (No Impact)

Mitigation Measures:

- 6-1 All project improvements shall meet the requirements of the California Uniform Building Code (CUBC) for Seismic Zone 4.
- 6-2 Best Management Practices shall be used to minimize erosion along the paths. The staging area will be improved between April 15 and October 15, prior to the winter rains, or will utilize Regional Water Quality Control Board (RWQCB) Best Management Practices for wet-weather construction. (Same as Mitigation Measure 8-1)

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.7 HAZARDS AND HAZARDOUS MATERIALS. Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion:

a. Hazard to Public Health or the Environment through Transportation of Hazardous Materials or Waste

Hazards associated with the proposed project would be limited to petroleum products used in the machinery during grading of the staging area and widening of the driveway. Implementation of Mitigation Measure 7-1 would reduce potential impacts during the construction period to less than significant levels. There would be no long-term hazard-related impacts associated with the project. (Less-than-Significant Impact with Mitigation Incorporated)

b. Hazard to Public Health or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials or Waste

The proposed project would not involve the use of hazardous materials or waste. Grading and placement of gravel would occur; however, use of these materials would not result in a hazard to public health or the environment. The project poses negligible risk of releasing hazardous materials or waste. Implementation of Mitigation Measure 7-1 would reduce potential risk to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

c. Hazardous Emissions within Proximity to Schools

The project would be located within ¼ mile of Sonoma Academy, which is located at the terminus of Kawana Springs Road. Implementation of Mitigation Measure 7-1 would reduce potential risk of hazardous emissions during construction activities to a less-than-significant level. Following construction, the project would not involve use of hazardous materials or have the potential for hazardous emissions; therefore, potential impacts to Sonoma Academy would be less-than-significant. (Less-than-Significant with Mitigation Incorporated)

d. Location of the Project on a Site on the Cortese List

There are no sites in the project vicinity listed on the Department of Toxic Substances Control Hazardous Waste and Substances List (Cortese List).³⁴ The closest site on this list is in the vicinity of Sebastopol Road and the Northwest Pacific Railroad (NWPRR) line, approximately two miles from the project site. (No Impact).

e. Safety Hazard within the Vicinity of an Airport

The closest airport is the Charles M. Schulz Airport (Sonoma County Airport), located approximately nine miles northwest of the project site. Other airstrips in the vicinity include the Petaluma Municipal Airport on the eastern edge of the City of Petaluma, and Skypark, south of the City of Sonoma, both of which are located over ten and fifteen miles, respectively, from the project site. (No Impact)

f. Safety Hazard within the Vicinity of a Private Airstrip

There are no private airstrips within proximity to the proposed project. (No Impact)

g. Emergency Response or Evacuation Plan

Kawana Terrace provides access to Taylor Mountain for emergency vehicles, and emergency responders would have access through all gate. The project meets the Sonoma County Fire Safe Standards related to driveway width, slope and access gate. Once on the property, ranch roads provide emergency vehicle access to many parts of Taylor Mountain, although there are short sections of steep slopes. Since no structures are proposed as part of the project, access on the property would not result in inadequate emergency access. (Less-than-Significant Impact)

h. Exposure of People or Structures to High Risk of Wildland Fire

All recreation and preserve lands located within proximity to urban centers have some risk of wildland fire from illegal smoking or illegal campfires, as well as from natural causes such as lightning strikes. A number of homeless encampments, which is where illegal smoking or campfires tend to be located, have been found at the project site. The District, LandPaths and Regional Parks work to clean up and remove the camps and debris as sites are found.

Providing interim access and an associated orientation for permitted users would generally reduce illegal use of the project site, as more people will be in the area. Smoking, building any type of fire, or using any type of open flame on the property would be prohibited, as would be explained at the orientation and identified by signage on the property. In addition, grazing would continue at the property, in part to reduce potential fire hazard. Implementation of Mitigation Measures 7-2 and 7-3 would reduce the potential impact related to wildland fire to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

Mitigation Measures:

- 7-1 The contractor grading the staging area and widening the driveway shall follow the provisions of Sections 5163 – 5167 of the General Industry Safety Orders (CCR Title 8) to protect the project site from being contaminated by accidental release of any hazardous materials and/or waste.
- 7-2 During periods of high and very high fire hazard, the use of power tools for maintenance or other activities shall be prohibited. Maintenance and operation of vehicles shall be restricted to the existing ranch roads and shall not be driven into other undeveloped areas of the property except during emergencies. (Same as Mitigation Measure 13-1)
- 7-3 Taylor Mountain shall be closed during Red-Flag Warning Days (approximately 8 to 14 days/year), as determined by the National Weather Service for the San Francisco/Monterey Bay Weather Forecast Area. (Same as Mitigation Measure 13-2)

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.8 HYDROLOGY AND WATER QUALITY. Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or volume of surface runoff in a manner that would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in flooding on- or off-site				
ii) create or contribute runoff water that would exceed the capacity of existing or planned storm water discharge				
iii) provide substantial additional sources of polluted runoff				
iv) result in substantial erosion or siltation on-or off-site?				
d) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Place housing or other structures that would impede or re-direct flood flows within a 100-yr. flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Expose people or structures to a significant risk of loss, injury, or death involving flooding:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) as a result of the failure of a dam or levee?				
ii) from inundation by seiche, tsunami, or mudflow?				
g) Would the change in the water volume and/or the pattern of seasonal flows in the affected watercourse result in:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) a significant cumulative reduction in the water supply downstream of the diversion?				
ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?				
iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?				
iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?				
v) a substantial increase or threat from invasive, non-native plants and wildlife				
h) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:***a. Violations of Water Quality Standards or Discharge Requirements***

The proposed project would allow permitted hikers, bicyclists and equestrians to use Taylor Mountain on an interim basis. While equestrian use would result in some additional urine and feces being deposited on the site, the orientation would emphasize minimizing the amount of urine and fecal matter that enters the drainage, and any potential increase would not be substantial in relation to the existing use of the site for cattle grazing. The project would also involve grading of the staging area and widening of the driveway, which could result in some sedimentation. Implementation of Mitigation Measure 8-1 would reduce this potential impact to a less-than-significant-level. (Less-than-Significant Impact with Mitigation Incorporated)

b. Ground Water Supplies or Recharge

The project area is identified as a Marginal Groundwater Availability Area in the Sonoma County General Plan 2020. Grading the staging area and widening the driveway would not add impervious surface to the site. The staging area is already compacted from its current use as a parking area, and paving two disabled parking would not substantially increase impermeability over the existing condition. Therefore, the project would not interfere with groundwater movement or recharge. (Less-than-Significant Impact)

c. Existing Drainage Pattern at the Site

Several intermittent streams flow through the Taylor Mountain property and Colgan Creek flows adjacent to the property. Stabilizing two of the creek crossings, likely through armoring, would help to maintain the integrity of the drainage courses, and thereby not alter the drainage patterns or creating additional runoff or flooding. Grading the staging area with gravel would be minor since the area is already relatively flat and only two parking spaces would be paved, resulting in less-than-significant impacts related to the existing drainage, runoff, flooding and erosion. Furthermore, leaving gaps in the recycled parking bumpers along the pedestrian path on Kawana Terrace would maintain the existing sheet drainage from the road. (Less-than-Significant Impact)

d. Water Quality

Implementation of the proposed project would result in minimal erosion and sedimentation from use of mowed trails and existing ranch roads by hikers, bicyclists and equestrians, grading the staging area, and widening the driveway. Stepping, bicycling and horseback riding across seasonal creeks and drainage areas could result in the movement of some sediment. However, armoring of two drainage crossings would minimize sedimentation during wet weather periods. Implementation of Mitigation Measure 8-1 would reduce any potential impact to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

e. Placement of Housing or other Structures within the 100-year Floodplain

The project is not located within the 100-year floodplain of Colgan Creek. (No Impact)

f. Exposure of People or Structures to Significant Loss from a Dam or Levee Failure

There are no dams or levees on the site of the proposed project, nor is the project located downstream from a dam or levee. Therefore, the project would not expose people or structures to any significant loss associated with a dam or levee failure. (No Impact)

g. Changes in Water Volume or Patterns of Seasonal Flow

The project would not involve changes in water volume or seasonal flow. The trails and ranch roads cross seasonal drainages, but use of the trails by hikers, bicyclists and equestrians would not affect water volume or patterns of seasonal flow. (Less-than-Significant Impact)

h. Exposure of People or Structures to Significant Loss or Injury from Flooding

The project is not within the floodplain of Colgan Creek. Therefore, it would not expose people or structures to significant loss or injury from flooding. (No Impact)

i. Inundation by Seiche, Tsunami or Mudflow

Taylor Mountain is subject to some landslide areas that could result in mudflows during wet weather periods; however, the designated trails and ranch roads avoid the mapped Landslide Complex. Given the location of the project site approximately 20 miles from the coast, and given the lack of lakes or other large water-bodies on the property, it would not be subject to inundation by tsunami or seiche. (Less-than-Significant Impact)

Mitigation Measures:

8-1 Best Management Practices shall be used to minimize erosion along the paths. The staging area will be improved and the driveway will be widened between April 15 and October 15, prior to the winter rains, or Regional Water Quality Control Board (RWQCB) Best Management Practices for wet-weather construction will be utilized. (Same as Mitigation Measure 6-2)

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.9 LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:***a. Divide an Established Community***

Taylor Mountain is located within the unincorporated lands of the County of Sonoma, and adjacent to the city limits of the City of Santa Rosa. It is located at the edge of an established community, which is continuing to build out with a number of pending residential developments in the vicinity. The topography of the site already separates the project area from the neighborhoods. Implementation of the proposed project actually connects rather than divides the surrounding community. (No Impact)

b. Conflict with an Applicable Land Use Plan, Policy or Regulation

The proposed project is consistent with the District's goals of developing an open space, agricultural buffer and scenic greenbelt around cities in Sonoma County. It is also consistent with the Sonoma County General Plan 2020, which designates this area as Resource and Rural Development land. In addition, Sonoma County General Plan Objective OSRC-17.1 provides for adequate parklands and trails primarily in locations that are convenient to urban areas, while not negatively impacting agricultural uses.

The project is also consistent with the Santa Rosa General Plan, which identifies Taylor Mountain as part of the complex of recreation and open space lands surrounding the City of Santa Rosa. In addition, Santa Rosa General Plan 2020 Policy UD-E-2 provides for an open space network that is linked by pedestrian and bicycle paths, and that preserves and enhances Santa Rosa's visual and natural resources.

The existing staging area would be used for parking during the interim period; this area is within the alignment of the approved City of Santa Rosa's Farmers Lane Extension project, as seen in Figure 3 in the Project Description. The Farmers Lane Extension would not be constructed during the interim period, and Regional Parks is preparing a master plan that would address long-term parking and access requirements. Therefore, use of the staging area for parking during the interim period would not conflict with the Farmers Lane Extension project. (Less-than-Significant Impact)

c. Conflict with an Applicable Habitat Conservation Plan

The Santa Rosa Plain Conservation Strategy, which has not been adopted or implemented by Sonoma County, addresses California tiger salamander (CTS), which is generally found on the Santa Rosa Plain. The portion of the Taylor Mountain property included in the Conservation Strategy notes that "the Presence of CTS is not likely and there are no listed plants in this area."³⁵ Furthermore, the proposed uses would not conflict with the Santa Rosa Plain Conservation Strategy. (Less-than-Significant Impact)

Mitigation Measures:

None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.10 MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a. Mineral Resources identified as being Regionally Important

There are no known State-designated (MRZ-2) mineral resources located at the project site or within the Santa Rosa and Environs Planning Area.³⁶ (No Impact)

b. Mineral Resources Identified as being Locally Important

There are no mineral resources identified as being locally important on the project site. A landscaping materials business is located on a parcel directly west of the project site, but its operation would not be affected by the proposed project. (No Impact)

Mitigation Measures:

None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2-11 NOISE. Would the project result in:				
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to, or generation of, excessive ground-borne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels?

Discussion:

a. Exposure of Persons to Noise Levels Above Established Standards

The proposed project would generate noise on an ongoing basis of voices of people hiking, bicycling or horseback riding on Taylor Mountain and automobiles and horse trailers driving to and from the project area. Public use of Taylor Mountain would be limited to daylight hours. Voices audible at 100 feet are generally 50 to 60 dBA, which would not exceed the standard of 60 dBA daytime outdoor noise levels that are normally acceptable in single-family residential areas.³⁷ Noise levels could exceed standards during construction activities. Implementation of Mitigation Measure 11-1 would reduce this potential impact to a less-than-significant level. (Less-Than-Significant Impact with Mitigation Incorporated)

b. Exposure of Persons to Excessive Ground-borne Vibration or Ground-borne Noise

The proposed project would not involve significant ground-borne vibration or ground-borne noise, as jack-hammers or blasting would not be needed for the proposed grading of the staging area. (Less-than-Significant Impact)

c. Substantial Permanent Increase in Ambient Noise Levels

The proposed project would result in additional noise audible from adjacent residences from voices, automobiles and horse trailers traveling to and from the project area, and while at the staging area. However, this noise would be temporary in nature and any increase in the level of noise resulting from the proposed project would not be substantial. (Less-than-Significant Impact)

d. Substantial Temporary or Periodic Increase in Ambient Noise Levels

Use of Taylor Mountain by individuals and small groups could result in temporary and sporadic increases in ambient noise levels. Residences are the most noise-sensitive uses (sensitive receptors) in the project area, and improving the existing staging area would result in some noise that could be audible from nearby residences. Construction activities with feasible noise control typically generate noise levels of 75 to 80 decibels as measured from approximately 50 feet.³⁸ Implementation of Mitigation Measure 11-1 would reduce this potential impact to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

e. Exposure of People Working in a Airport Land Use Plan Area to Excessive Noise Levels

The project is not located within or in proximity to an Airport Land Use Plan Area. (No Impact)

f. Exposure of People Within the Vicinity of a Private Airstrip to Excessive Noise Levels

The project is not located within or in proximity to a private airstrip. (No Impact)

Mitigation Measures:

11-1 (a) Noise-generating construction activities, including truck traffic coming to and from the site for any purpose shall be limited to daytime, weekday, non-holiday hours (8:00 a.m. to 5:00 p.m.). Any special circumstances which necessitate performance of construction work outside the hours and days specified shall require that the contractor request, and the County’s project manager approve, such work.

(b) Construction equipment shall be properly outfitted and maintained with noise reduction devices to minimize construction-generated noise, i.e., fit motorized equipment with proper mufflers in good working order. Unnecessary idling of internal combustion engines shall be prohibited.

(c) The contractor shall locate stationary noise sources such as air compressors as far as practical from existing nearby residences.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.12 POPULATION AND HOUSING. Would the project:

a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) and b) Population Growth; Displacement of Housing

The proposed project allows recreational use of Taylor Mountain on a permit basis; it would not result in population growth, nor would it displace any housing units. (No Impact)

c) Displacement of People

Several campsites of homeless people have been found over time on the property. The proposed project may displace a small number of homeless people by an increase in the number of people using the property; however, since these people currently do not have housing, it would not be possible to construct replacement housing. The increase in use of the property would likely result in fewer homeless people staying on the property. (No Impact)

Mitigation Measures:

None required.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

a) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

a. Fire Protection

Taylor Mountain is located in an area characterized by “High” and “Very High” Fire Hazard on the Sonoma County Hazard Mitigation Plan.³⁹ It is identified as “Moderate” on the CalFIRE – Fire Hazard Severity Zones on its State Responsibility Areas (SRA) map.⁴⁰ The property is located in the Bennett Valley and the Rincon Valley Fire Protection Districts, who respond to calls requiring first-aid, and to any structure and/or vehicle fires within the project area.⁴¹ The City of Santa Rosa Fire Department would likely be the first responder, however, under mutual aid agreements, as it has the closest fire station, Station 1, at 955 Sonoma Avenue.⁴² An additional fire station is proposed for the future at Kawana Terrace and Franz Kafka Avenue. Wildland fire protection services would be provided by CalFIRE as needed. Regional Parks would also patrol the property on a regular basis.

Additional use of the site could result in impacts related to fire hazard, which is similar to all recreation areas located at the edge of populated areas. Permitted users would go through an orientation covering fire hazard and prevention. Prohibition of smoking and campfires would be emphasized in the orientation, listed in the rules and regulations, and announced on the informational kiosk. With permitted use of the site and additional “eyes on the site,” illegal fire use would likely decrease. Furthermore, the site would continue being actively grazed, which helps to reduce fire hazard, and the access routes are on the interior of the site, not near the perimeter of the property close to existing residences.

With permits limited to 2,500 and an orientation program in place to educate site users about fire safety, with an emphasis on no smoking, no fireworks, no use of power-tools, and, no campfires, the number of fire-related service calls to the site is anticipated to be relatively low.⁴³ Potential impact would be reduced to less than significant with implementation of Mitigation Measures 13-1 and 13-2. (Less-than-Significant Level with Mitigation Incorporated)

b. Police Protection

The City of Santa Rosa Police Department currently provides surveillance of City-owned Kawana Terrace until its termination at the entrance to the project area. The County Sheriff's Department responds to incidents, providing search and rescue, and law enforcement on the Taylor Mountain property since the project site is located within an unincorporated area. With permits limited to 2,500, the Sheriff's Department does not anticipate a lot of calls due to implementation of the proposed project.⁴⁴

The orientation for the permit program would provide specific information about permitted and prohibited activities as well as the protocol for reporting problematic activities. Implementation of Mitigation Measure 13-3 would reduce potential impacts related to police protection to less-than-significant levels. (Less-than-Significant Impact with Mitigation Incorporated)

c. Schools

As a project that allows low-impact multi-use recreation use of Taylor Mountain, it would not have an impact on school capacity. The project would, however, result in beneficial impacts related to education by allowing access to Taylor Mountain, which provides a living laboratory for the study of natural sciences. (No Impact)

d. Parks

The project involves providing access to Taylor Mountain on a permit basis until a Master Plan is prepared and approved for long term use. The project would result in a beneficial impact related to parks by allowing some public access at this time. Furthermore, permitted users must attend an orientation, which would provide training in environmental stewardship, resulting in beneficial impacts related to the protection of regional parks and open space lands in the region. (No Impact/Beneficial)

e. Other Public Facilities

The proposed project would result in some public use in proximity to two Sonoma County Water Agency water tanks. However, the tanks are within a fenced perimeter; therefore, implementation of the proposed project would not adversely affect these facilities. (Less-than-Significant Impact)

Mitigation Measures:

- 13-1 During periods of high and very high fire hazard, the use of power tools for maintenance or other activities shall be prohibited. Maintenance and operations of vehicles shall be restricted to the existing ranch roads and shall not be driven into other undeveloped areas of the property except during emergencies. (Same as Mitigation Measure 7-2)
- 13-2 Taylor Mountain shall be closed during Red-Flag Warning Days (approximately 8 to 14 days/year), as determined by the National Weather Service for the San Francisco/Monterey Bay Weather Forecast Area. (Same as Mitigation Measure 7-3)

13-3 The Sonoma County Regional Parks Department shall assign staff as needed to patrol the Taylor Mountain property. The Volunteer Patrol shall continue to assist with this effort, as directed by LandPaths.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.14 RECREATION. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

a. Increase in the Use of Existing Neighborhood and Regional Parks Resulting in Substantial Accelerated Physical Deterioration

Implementation of the proposed project would open a public open space area to low-impact recreational use. Therefore, the project would not increase use of an existing recreational facility but would provide additional access. (No Impact/Beneficial Impact)

b. Include or Require Recreation Facilities with Adverse Impacts

The proposed project would utilize existing designated trails and ranch roads on Taylor Mountain. Implementation of the proposed project would result in minor improvements, including fencing, spring-loaded gates, bicycle racks, hitching posts and an information kiosk. A chemical toilet would also be placed and maintained at the staging area, and, picnic tables would be placed outside of the staging area under the trees. These improvements would not result in adverse recreation-related impacts; they would enhance recreation resources. (No Impact/Beneficial Impact)

Mitigation Measures:

None Required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.15 TRANSPORTATION AND TRAFFIC. Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (<i>i.e.</i> , result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially increase hazards due to a design feature (<i>e.g.</i> , sharp curves or dangerous intersections) or incompatible uses (<i>e.g.</i> , farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate parking capacity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Exceed, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies supporting alternative transportation (<i>e.g.</i> , bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

This section summarizes the findings of the Traffic Impact Study for the Taylor Mountain Interim Public Access Permit Program in Sonoma County, prepared by Whitlock & Weinberger Transportation, Inc., August, 2009 (see Appendix D).

a. Cause a Substantial Increase in Traffic in Relation to Existing Traffic

The proposed project would allow multi-use public access to Taylor Mountain on a permit basis, with a maximum of 2,500 permits issued for use of the site. Unless disabled, people living within ½ mile of the site would be encouraged to walk or bicycle to the site. A maximum of 500 people would be trained during any quarter of the year. Using trip generation rates from visitor information from Shiloh Ranch Regional Park,⁴⁵ the proposed project would generate 156 visitors per day. Visitors are assumed to arrive and depart with an average occupancy of 2.5 visitors per vehicle, resulting in an expected 62 vehicles arriving and departing, combining for a total of 124 average daily vehicle trips. Traffic levels would be expected to be higher in the spring and fall months than during wet winter or hot summer months, with an estimated peak of approximately 150 percent of the average daily traffic, or 188 daily trips. To provide a conservative evaluation, it was assumed that 25 percent of the project-generated trips would occur during the weekday p.m. peak hour and the weekend midday peak hour, or 47 hourly trips would be expected during these peak hours. Study intersections for both the ‘Existing plus Project Conditions’ and the ‘Future plus Project Conditions’ are expected to operate with acceptable levels of service. (Less-than-Significant Impact)

b. Substantially Increase Hazards

Sight distance from the proposed access on Kawana Terrace was evaluated based on sight distance criteria contained in the Caltrans Highway Design Manual, 6th Edition. The applicable criterion for rural driveways on a public street is based on stopping distance. Kawana Terrace is a local street with a speed limit of 25 mph. For a 25-mph design speed, a rural driveway intersection should have a stopping sight distance of 150 feet or greater. The measured site distance to the west of the driveway onto the Taylor Mountain property is 138 feet. Kawana Terrace terminates east of the project site at a residential driveway; therefore, site distance to the east is not applicable. However, the configuration of the road terminus and the area driveways combine to render application of the sight distance criterion unnecessary. The only eastbound approaching traffic would be expected to slow down to turn and enter the site or to enter the residential driveway immediately adjacent to the east. In either case, the travel speed of these vehicles is expected to be closer to 20 mph than to the posted speed, making the available sight distance adequate for the prevailing approach speed since the recommended sight distance for a 20-mph design is 125 feet. Given the nature of Kawana Terrace and the location of the driveway at the end of the street, existing site distance is expected to be adequate.

Site distance is also generally adequate for the pedestrian crossing of Kawana Terrace, which would be 350 feet east of Meda Avenue. Westbound motorists would have sight distance limited to 140 feet by shrubbery on the north side of the street, which is less than the recommended 150 feet stopping sight distance necessary for a 25 mph street.⁴⁶ Implementation of Mitigation Measure 15-1 would reduce this potential impact to a less-than-significant level. (Less-than-Significant Impact with Mitigation Incorporated)

c. Result in Inadequate Emergency Access

Kawana Terrace provides access to Taylor Mountain for emergency vehicles, and emergency responders would have card access at the driveway gate and at the gates leading out of the staging area. The project meets the Sonoma County Fire Safe Standards related to driveway width, slope and access gate. The driveway grade varies between five and 16 percent, with an estimated average 13 percent grade. Once on the property, ranch roads provide emergency vehicle access to many parts of Taylor Mountain, although there are short sections of steep slopes. Furthermore, no structures exist on the property or are proposed as part of the project. Therefore, implementation of the project would not result in inadequate emergency access. (Less-than-Significant Impact)

d. Result in Inadequate Parking Capacity

The proposed project includes 48 standard vehicle parking spaces, six horse trailer parking spaces and two disabled accessible parking spaces. These parking spaces would be available only to permit holders, on a first-come, first-served basis. Due to the narrow configuration of Kawana Terrace and the presence of vegetation on the shoulder, limited on-street parking is estimated to provide six spaces. The total on-site and off-site parking supply therefore is estimated to be 62 parking spaces. It should be noted that additional on-street parking is theoretically available on Meda Avenue, but since this street is over 2,000 feet west of the park entrance, it is considered to be an infeasible location for project parking.

The County of Sonoma parking standards do not include requirements for regional parks or open space areas, so additional sources were consulted. Parking Standards, published by the American Planning Association (2002), states that regional parks can be considered the same as forest preserves which require “sufficient open land available for parking so that no vehicles need to be parked on any street.” Considering that a maximum of 47 vehicles per hour are expected to travel to and from the park during peak periods, of which 28 trips are expected to be inbound during that time, the supply of 48 standard parking spaces plus additional horse trailer and disabled accessible parking is expected to be sufficient for daily operations. LandPaths, Volunteer Patrols and permitted users would monitor use of the staging area to confirm that spaces remain available for project use. If constraints are observed, additional limitations on automobile and horse trailer access would be imposed on program participants.

Special events will continue to be held at the project site. These events include organized day-time and night-time hikes, school education trips, 4th of July fireworks viewing, and volunteer patrol training. Maximum parking demand for special events could require up to 100 spaces, based on attendance of approximately 250 people at the 2009 4th of July event. For this particular event and other special events, additional parking spaces would be required. Therefore, to meet the maximum expected parking demand, an overflow area would be needed. Potential impacts related to parking would be reduced to a less-than-significant level with implementation of Mitigation Measure 15-2. (Less-than-Significant with Mitigation Incorporated)

e. Exceed, Individually or Cumulatively, a Level-of-Service Standard

Interim use of the site under the proposed project would not exceed the level of service for project streets in the vicinity. Under anticipated future volumes, study intersections and area roadways are expected to operate acceptably. However, for special events, implementation of Mitigation Measure 15-3 would reduce any potential impacts of high traffic loads in the surrounding neighborhoods. (Less-than-Significant Impact with Mitigation Incorporated)

f. Conflict with Adopted Policies Supporting Alternative Transportation

Members of the public obtaining permits for interim access would go through an orientation program that would encourage participants to walk, bicycle or take public transportation to the site. One of the benefits of using Taylor Mountain as a recreation resource is that it is close to population centers, making it feasible to take alternative modes of transportation. People living within ½ mile of the trailhead would be encouraged to use alternative modes of transportation to access the site, and bicycle racks would be installed at the staging area. Pedestrian enhancements include a path along Kawana Terrace, crossing the street approximately 350 feet east of Meda Avenue in order to access a pedestrian gate and path near the northwest property boundary that leads onto the property. Kawana Terrace would also be available for multi-use following vacation of the roadway. Implementation of Mitigation Measure 15-4 would ensure adequate bicycle parking in accordance with County Standards. (Less-than-Significant Impact with Mitigation Incorporated)

g. Result in a Change in Air Traffic Patterns

As a project that would allow public use of Taylor Mountain for recreation on an interim basis, it would not impact air traffic patterns. (No Impact)

Mitigation Measures:

- 15-1 Shrubbery on the north side of Kawana Terrace shall be pruned back and/or removed to eliminate site distance obstruction.
- 15-2 Overflow parking for special events shall be accommodated on-site, within and outside the fenced staging area. The emergency gate at the staging area will be opened to access this area and a parking attendant will delineate the overflow area with construction-zone cones and assist with the overflow parking as needed.
- 15-3 Scheduling of special events at Taylor Mountain shall be coordinated with Sonoma Academy to avoid generating high traffic loads in the surrounding neighborhoods and vicinity.
- 15-4 A minimum of eleven bicycle parking spaces shall be provided at the staging area to meet County of Sonoma parking requirements.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.16 UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:***a. Exceed Wastewater Requirements***

The proposed project would allow public use of Taylor Mountain for multi-use recreation on an interim basis. The project would not affect wastewater requirements. A portable chemical toilet would be installed for site users at the staging area, which would be maintained by Regional Parks. Water for livestock and horses is available in water troughs fed by spring boxes. (No Impact)

b. Require or Result in the Construction of New Water or Wastewater Treatment Facilities

The proposed project would allow public use of Taylor Mountain for multi-use recreation on an interim basis. The project would not affect water or wastewater facilities. Trail users would bring their own water to the site, and existing water troughs are available for horses. A portable chemical toilet would be placed and maintained at the staging area. (No Impact)

c. Require or Result in the Construction of New or Expanded Storm Water Drainage Facilities

Implementation of the proposed project includes grading the existing staging area, widening the driveway, stabilizing two creek crossings and creating a pedestrian path along Kawana Terrace. However, these improvements would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. (Less-than-Significant Impact)

d. Sufficient Water Supplies

As a project that would allow public use of Taylor Mountain for multi-use recreation on an interim basis, it would not impact water supplies. Trail users would bring their own water to the site. Water for horses is available at the existing water troughs on the site. (No Impact)

e. Determination of Adequate Capacity by the Wastewater Provider

The proposed project would allow public use of Taylor Mountain for multi-use recreation on an interim basis. A portable chemical toilet would be installed for site users at the staging area and maintained by Regional Parks. The project would not significantly impact wastewater capacity; however, implementation of Mitigation Measure 16-1 would ensure less-than-significant impacts. (Less-Than-Significant Impact with Mitigation Incorporated)

f. Be Served by a Landfill with Sufficient Permitted Capacity

As a project that would allow public use of Taylor Mountain for multi-use recreation on an interim basis, it would have a negligible impact on solid waste. In general, users would pack out their own trash from the site. In addition, trash and recycling receptacles would be placed at the staging area and maintained by Regional Parks. (Less-than-Significant Impact)

g. Comply with Federal, State and Local Statutes Related to Solid Waste

State law requires cities and/or the counties to prepare a Countywide Integrated Waste Management Plan (CoIWMP). The CoIWMP is the principal planning document for solid waste management in the County. Reduction of the quantity of waste deposited by landfills by 50 percent or greater is required after 2000, based on waste generation rates of 1990. Site users would pack out their own trash from the site. In addition, trash and recycling receptacles would be placed at the staging area and maintained by Regional Parks. (Less-than-Significant Impact)

Mitigation Measures:

- 16-1 The Sonoma County Regional Parks Department shall conduct inspections and maintenance according to current regulations of toilet facilities, and ensure that routine waste removal is conducted so that effluent spills are avoided or minimized. The licensed contractor will demonstrate adequate capacity at the facility where wastewater is to be disposed.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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2.17 MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OVERVIEW OF ENVIRONMENTAL IMPACTS

As a project that involves allowing interim access to Taylor Mountain through a permit program for multi-use recreation (hiking, bicycling and equestrian), most of the impacts of the project are beneficial. The proposed project would provide a park and open space preserve close to an urban center that is accessible using non-motorized transportation. The interim public access permit program would also have an important education function in training members of the public in stewardship principles that apply broadly to open space and natural resource lands. Implementation of the proposed project would result in no impact in relation to agricultural resources, mineral resources, population and housing, and

recreation. The proposed project would, however, result in some potential impacts to the environment, as described below.

Aesthetics: The Taylor Mountain property is part of a Scenic Landscape Unit identified in the Sonoma County General Plan. Allowing interim use of Taylor Mountain for multi-use access would have the potential to result in the creation of multiple trails that could be visible from the site and off site locations. Clear trail markings would identify which user groups are allowed on specific trails and ranch roads to avoid bicyclists and equestrians using the pedestrian paths, as well as to avoid creation of new routes. Seasonal closures would also be put into effect to avoid creating deeply incised tracks on the property. Therefore, low-intensity recreational use of Taylor Mountain on a permitted basis by hikers, bicyclists and equestrians would not have a substantial adverse effect on the scenic vistas of Taylor Mountain. Open wire fencing installed around the access road and staging area would be compatible with the agricultural setting. No night lighting would be added as part of the proposed project. (Less-than-Significant Impact)

Air Quality: The proposed project would result in some short-term air quality impacts from grading the staging area and widening the driveway. These impacts would be reduced to a less-than-significant level with identified mitigation. Over the long term, impacts would be beneficial since the proposed project would result in an additional recreation resource close to an urban center that is accessible by non-motorized transportation. (Less-than-Significant Impact with Mitigation Incorporated)

Biological Resources: Allowing interim access to Taylor Mountain on a multi-use permit basis could result in potential adverse impacts to Wet Meadow areas. Impacts would be reduced to a less-than-significant level by limiting access through designated areas to hikers only. People would use existing designated trails (mowed paths and existing ranch roads) to avoid impacts to wetlands and seeps. The western route would be closed during wet weather periods for hikers, and would be closed entirely for bicyclists and equestrians for the winter season after the first winter rain. The ranch road to the summit would also be closed to bicyclists and equestrians on a seasonal basis following the first winter rain due to steep and slippery conditions. (Less-than-Significant with Mitigation Incorporated)

Cultural Resources: Interim access to Taylor Mountain would utilize existing designated trails and ranch roads. Cultural resources, including two archeological sites and several remnants of stone fences, would be avoided. Permit program participants would receive training, including an informational brochure about cultural resources on the site. Resources would be monitored on a periodic basis to ensure that they are being adequately protected during the interim period. (Less-than-Significant Impact with Mitigation Incorporated)

Geology and Soils: The proposed project would require some grading of the staging area and widening of the driveway. Regional Water Quality Control Board Best Management Practices would be used if grading is conducted during wet-weather months. An existing designated trail would be used by hikers and ranch roads by hikers, bicyclists and equestrians. Ranch roads would be closed for the season after the first winter rains, and the mowed trail would be closed as needed during wet weather periods. Bicyclists and equestrians would not be allowed on the western route until necessary armoring of creek crossings is in place. Many areas of Taylor Mountain would be unsuitable for development due to the fault zone and unstable geologic units that could result in shifting or movement in foundations; however, use for hiking, bicycling and horseback riding would generally be consistent with these conditions as these uses can avoid specific landslide-prone areas. (Less-than-Significant Impact with Mitigation Incorporated)

Hazards and Hazardous Materials: Installation of the proposed improvements would result in negligible hazards in relation to a potential accidental spill. Allowing multi-use access could result in some additional fire hazard that would be reduced to a less-than-significant level by prohibiting the use of power tools during periods of high and very high fire danger, and closing the park during Red Flag Warning days. (Less-than-Significant with Mitigation Incorporated)

Hydrology and Water Quality: Grading the staging area and widening the driveway have the potential to result in some erosion and sedimentation. This impact would be reduced to a less-than-significant level with erosion controls in place. Any grading conducted after October 15 would be in accordance with the RWQCB Best Management Practices for wet weather construction. Crossing creeks and drainages during wet weather periods could also result in some erosion, generally comparable to that resulting from the cattle already using the site. Bicyclists and equestrians would not be allowed on the western route until the necessary armoring of the creek crossings is in place. Armoring of the drainages would help to maintain the integrity of the drainage areas. (Less-than-Significant Impact with Mitigation Incorporated)

Land Use and Planning: The project would not divide an established community or conflict with any applicable land use plan, policy or regulation. The existing staging area would be used for parking during the interim period; this interim use would not affect future construction of the Farmers Lane Extension. (Less-than-Significant Impact)

Noise: The project would result in temporary noise impacts during grading the staging area and widening the driveway, but these impacts would be relatively minor. Noise mitigations would be utilized to reduce this potential impact to a less-than-significant level. Over the long term, the voices of hikers, bicyclists and equestrians might be audible occasionally, but, this impact would be less than significant. (Less-than-Significant Impact with Mitigation Incorporated)

Recreation: The project would require installation of some additional recreation facilities, including parking improvements at the existing staging area, an information kiosk, and additional gates. In addition, bicycle racks, hitching posts and a fenced perimeter around the parking area and access road would be provided. A chemical toilet would be installed at the staging area, and picnic tables would be placed outside of the staging area under the trees. The project would result in a beneficial impact related to recreation by providing an additional open space resource located close to the population centers of Santa Rosa and Rohnert Park. (No Impact/Beneficial Impact)

Public Services: Additional use of the site has potential to result in additional fire, but allowing public access to Taylor Mountain would result in “more eyes on the land,” potentially reducing the likelihood of illegal fires. Also, no motorized equipment would be allowed during periods of high and very high fire danger. Additional use of the site could also result in some additional service calls related to police and emergency services. Potential public service related impacts would be reduced to a less-than-significant level with the mitigation incorporated. (Less-than-Significant with Mitigation Incorporated)

Transportation and Circulation: The proposed project would generate 156 visitors per day. Forty seven (47) hourly trips would be expected during peak hours, which were determined to be during the weekday p.m. peak hour and the weekend midday peak hour. With the proposed project, study intersections for existing and future conditions are expected to operate with acceptable levels of

service. Site distances at the driveway off of Kawana Terrace and at the pedestrian trail crossing would be adequate with some pruning of shrubbery on the north side of Kawana Terrace at the pedestrian crossing. The project meets the Sonoma County Fire Safe Standards related to driveway width, slope and access gate. With the proposed 48 spaces at the staging area, parking capacity for daily use is adequate. The overflow area outside of the staging area would be needed for special events. The project supports use of alternative transportation. With mitigation incorporated, transportation and circulation-related impacts would be less-than-significant. (Less-than-Significant Impact with Mitigation Incorporated)

Utilities and Service Systems: The project would not require installation of new utilities; however, trash and recycling receptacles would be installed and maintained. A portable chemical toilet would also be installed at the staging area and would be maintained to avoid potential or minimize effluent spills. No water or wastewater facilities would be installed. (Less-than-Significant Impact with Mitigation Incorporated)

Endnotes/Information Sources

- ¹ Sonoma County General Plan 2020, Scenic Resource Areas, Figure OSRC-1, Adopted September, 2008.
- ² Gaye LeBaron, *Santa Rosa's John Taylor Made the Most out of His Mountain*, The Press Democrat, August 28, 2005.
- ³ California Department of Conservation – Division of Resource Protection, Important Farmlands Map, 2004.
- ⁴ Bay Area Air Quality Management District, Air Quality Plans (<http://www.baaqmd.gov/Divisions/Planning-andResearch/Plans.aspx>).
- ⁵ Bay Area Air Quality Management Department (BAAQMD) BAAQMD, August 13, 2009 (http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm).
- ⁶ Gregory Tholen, Principal Environmental Planner, Bay Area Air Quality Management District, telephone communication, August 13, 2009.
- ⁷ Circuit Rider Productions, *Taylor Mountain Properties, Botanical Survey*, January 2007.
- ⁸ California Freshwater Shrimp have been found only in Austin Creek, Salmon Creek, and Sonoma Creek in Sonoma County, Larry Serpa, Area Ecologist with the Nature Conservancy, (www.frankmgreco.com/endangeredshrimp.htm).
- ⁹ Sonoma County General Plan 2020 EIR, Exhibit 4.6-2, Special-Status Species and Sensitive natural Communities.
- ¹⁰ Circuit Rider Productions, *Taylor Mountain Ranch Properties, Botanical Survey*, July 2006, p.1.
- ¹¹ Sonoma County Regional Parks, *CNDDB Analysis of the Future Taylor Mountain Regional Park*, August 14, 2009.
- ¹² California Department of Fish and Game, Santa Rosa Plain Conservation Strategy Map, April 16, 2007.
- ¹³ United States Fish and Wildlife Service, *Programmatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain*, p. 3 and Enclosure 1, November 9, 2007.
- ¹⁴ Golden Bear Biostudies, Biotic Assessment, *Wetlands and Special Status Species Survey of the Taylor Mountain Regional Park in Sonoma County*, Marco Waaland, Vegetation Ecologist; Michael Fawcett, Ph.D, Wildlife Biologist, September 19, 2000.
- ¹⁵ Golden Bear Biostudies, Biotic Assessment, *Wetlands and Special Status Species, Survey of the Taylor Mountain Regional Park in Sonoma County*, Marco Waaland, Vegetation Ecologist, and Mike Fawcett, Ph.D. Wildlife Biologist, September 19, 2000.
- ¹⁶ Circuit Rider Productions, *Taylor Mountain Properties, Botanical Survey*, January 2007, p. 4.
- ¹⁷ Circuit Rider Productions, *Taylor Mountain Properties, Botanical Survey*, January 2007, p. 5.
- ¹⁸ Sonoma County General Plan 2020, Resource Conservation Element, Santa Rosa and Environs, Figure RC-2e.

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- ¹⁹ Sonoma County UC Cooperative Extension, telephone communication with Lisa Bell, Agricultural Program Assistant, August 18, 2009.
- ²⁰ California Department of Fish and Game, Santa Rosa Plain Conservation Strategy Map, April 16, 2007.
- ²¹ Tom Origer & Associates, *A Cultural Resources Survey for the Taylor Mountain Site Assessment – Russell Property*, September 14, 2006.
- ²² Tom Origer & Associates, *Cultural Resources Study for the Santa Rosa Citywide Creek Master Plan*, October 19, 2005.
- ²³ Tom Origer & Associates, *Cultural Resources Survey for the Taylor Mountain Site Assessment – Russell Property*, Sonoma County, September 14, 2006, pp. 8-9.
- ²⁴ Eileen Steen, Tom Origer & Associates, telephone communication, August 25, 2008.
- ²⁵ The five studies previously conducted on parts or all of the property include Cole (1987), Damon (1976), Derr (1998, French (1976), Hupman and Chavez (1993) and Stratford (1977).
- ²⁶ Sonoma County General Plan 2020 EIR, p. 4.7-5, Certified September, 2008.
- ²⁷ Santa Rosa 2020 General Plan, Geology & Seismicity, p. 12-4, Adopted June 18, 2002.
- ²⁸ Santa Rosa 2020 General Plan, Geologic and Seismic Hazards, p. 12-7, Adopted June 18, 2002.
- ²⁹ Sonoma County General Plan 2020, Figure PS-1e, Adopted September, 2008.
- ³⁰ USDA, Sonoma County Soil Survey, May 1972, pp.38-40, sheets no. 89 and 90.
- ³¹ USDA, Sonoma County Soil Survey, May, 1972; August 1990, pp. 39-40; 70; and sheets no. 89 and 90.
- ³² Sonoma County General Plan 2020, Figure PS-1e, Adopted September, 2009.
- ³³ Sonoma County General Plan 2020, Figure PS-1e, Adopted September, 2009.
- ³⁴ Department of Toxic Substances Control Hazardous Waste and Substances Site List (Cortese List), May, 2007 (http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm).
- ³⁵ California Department of Fish and Game, Santa Rosa Plain Conservation Strategy Map, April 16, 2007.
- ³⁶ Sonoma County General Plan 2020, Figure RC-2e, Adopted September, 2008.
- ³⁷ Santa Rosa 2020 General Plan, Land Use Compatibility Standards, Community Noise Exposure, Figure 12-1.
- ³⁸ Santa Rosa 2020 General Plan EIR, Table 4.15-5, Typical Noise Levels from Heavy Duty Equipment, p. 4-143, Adopted June 18, 2002.
- ³⁹ Sonoma County Hazard Mitigation Plan, Prepared by Natural Hazards Mitigation under the Direction of: Sonoma County Department of Emergency Services and Sonoma County Permit and Resource Management Department, Adopted September 19, 2006.
- ⁴⁰ CAL FIRE – *Fire Hazard Severity Zones in State Responsibility Areas*, Adopted by CalFIRE on November 7, 2007.
- ⁴¹ Doug Williams, Chief, Rincon Valley Fire Protection District, telephone communication, August 18, 2009.
- ⁴² Michael Jones, Division Chief, Santa Rosa Fire Department, personal communication, August 3, 2009.
- ⁴³ Chuck Abshear, Operations Division Chief, CalFIRE, telephone communication, August 18, 2009.
- ⁴⁴ Lieutenant Geasin, Sonoma County Sheriff Department, personal communication, August 18, 2009.
- ⁴⁵ Sonoma County Regional Parks Department, trip generation rates for Shiloh Regional Park, August, 2009.
- ⁴⁶ Whitlock & Weinberger, Transportation, Inc., *Traffic Impact Study for Taylor Mountain Interim Access Permit Program in the County of Sonoma*, August 18, 2009, p.13.

Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
Air Quality					
<p><u>Mitigation Measure 3-1 (Construction Impacts - Dust and Equipment Emissions):</u> The following measures shall be implemented during grading of the staging area:</p> <ul style="list-style-type: none"> ▪ Water all active construction areas at least twice daily. ▪ Cover all trucks hauling soil, gravel, crushed rock and other loose materials, or require trucks to maintain at least two feet of freeboard. ▪ Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. ▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ▪ Operate all construction vehicles and equipment with emission levels that meet current air quality standards and minimize idling time to 15 minutes for all heavy equipment to reduce on-site emissions during construction. ▪ Replant disturbed areas as quickly as possible, and always prior to the winter rains. 	SCAPOSD	SCRP			
Biological Resources					
<p><u>Mitigation Measure 4-1 (Sudden Oak Death Syndrome):</u> Signs shall be posted requiring precaution regarding the spread of Sudden Oak Death Syndrome (SODS). Transporting oak or bay wood to or away from the site shall be prohibited. Precautions regarding the spread of Sudden Oak Death will be a component of the orientation program.</p>	SCAPOSD	LandPaths			

KEY: (SCAPOSD) Sonoma County Agricultural Protection and Open Space District; (SCRP) Sonoma County Regional Parks; and, (CalFIRE) California Department of Forestry and Fire Protection

Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
Cultural Resources					
<p>Mitigation Measure 5-1 (Stone Fences): The orientation for use of the Taylor Mountain site shall include information about the archaeological resources located on the property and the need to respect the stone fences that remain visible. A brochure or other literature will encourage the public not to sit on, remove stones, or in any other way disturb the fences.</p>	SCAPOSD	LandPaths			
<p>Mitigation Measure 5-2 (Inspection of Stone Fences): Stone fences shall be inspected by District staff or designated consulting archaeologist on a quarterly basis, or more often if vandalism or other adverse conditions are observed, to ensure that the permitted public access has not resulted in adverse impacts and to address vandalism or other changes in the condition of the fences.</p>	SCAPOSD				
<p>Mitigation Measure 5-3 (Discovery of Artifacts): If any potentially-significant archeological deposits or features are discovered, all work in the immediate vicinity of the discovery shall be halted and the discovery evaluated by an archaeologist. Significant deposits will be removed using archaeological methods, or avoided and left in place.</p>	SCAPOSD				
<p>Mitigation Measure 5-4 (Human Remains): If human remains are encountered, excavation or disturbance of the location shall be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be the most likely descendents from the</p>	SCAPOSD				

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Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
deceased Native American. The most likely descendent will make recommendations regarding the treatment of the remains with appropriate dignity.					
Geology, Soils and Seismicity					
Mitigation Measure 6-1 (Seismic Ground-shaking): All project improvements shall meet the requirements of the California Uniform Building Code (CUBC) for Seismic Zone 4.	SCAPOSD				
Mitigation Measure 6-2 (Use of Best Management Practices): Best Management Practices shall be used to minimize erosion along the paths. The staging area will be improved between April 15 and October 15, prior to the winter rains, or will utilize Regional Water Quality Control Board (RWQCB) Best Management Practices for wet-weather construction. (Same as Mitigation Measure 8-1)	SCAPOSD	SCRP			
Hazards and Hazardous Materials					
Mitigation Measure 7-1 (Avoidance of Accidental Spills): The contractor grading the staging area and widening the driveway shall follow the provisions of Sections 5163 – 5167 of the General Industry Safety Orders (CCR Title 8) to protect the project site from being contaminated by accidental release of any hazardous materials and/or waste.	SCAPOSD	SCRP			
Mitigation Measure 7-2 (Fire Hazard): During periods of high and very high fire danger, the use of power tools for maintenance or other activities shall be prohibited. Maintenance and operation of vehicles shall be restricted to	SCAPOSD	SCRP, LandPaths, CalFIRE			

KEY: (SCAPOSD) Sonoma County Agricultural Protection and Open Space District; (SCRP) Sonoma County Regional Parks; and, (CalFIRE) California Department of Forestry and Fire Protection

Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
the existing ranch roads and shall not be driven into other undeveloped areas of the property except during emergencies. (Same as Mitigation Measure 13-1)					
Mitigation Measure 7-3 (Fire Hazard): Taylor Mountain shall be closed during Red-Flag Warning Days, as determined by the National Weather Service for the San Francisco/Monterey Bay Weather Forecast Area. (Same as Mitigation Measure 13-2)	SCAPOSD	LandPaths			
Hydrology, Water Quality and Flooding					
Mitigation Measures 8-1(Use of Best Management Practices): Best Management Practices shall be used to minimize erosion along the paths. The staging area will be improved and the driveway will be widened between April 15 and October 15, prior to the winter rains, or will utilize Regional Water Quality Control Board (RWQCB) Best Management Practices for wet-weather construction. (Same as Mitigation Measure 6-2)	SCAPOSD	SCRP			
Noise					
Mitigation Measure 11-1 (Construction Noise Impacts): (a) Noise-generating construction activities, including truck traffic coming to and from the site for any purpose shall be limited to daytime, weekday, non-holiday hours (8:00 a.m. to 5:00 p.m.). Any special circumstances which necessitate performance of construction work outside the hours and days specified shall require that contractor request, and the County’s project manager approve, such work.	SCAPOSD	SCRP			

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Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
<p>(b) Construction equipment shall be properly outfitted and maintained with noise reduction devices to minimize construction-generated noise, i.e., fit motorized equipment with proper mufflers in good working order. Unnecessary idling of internal combustion engines shall be prohibited.</p> <p>(c) The contractors shall locate stationary noise sources such as air compressors as far as practical from existing nearby residences.</p>					
Public Services					
<p>Mitigation Measure 13-1 (Fire Hazard): During periods of high and very high fire danger, the use of power tools for maintenance or other activities shall be prohibited. Maintenance and operation of vehicles shall be restricted to the existing ranch roads and shall not be driven into other undeveloped areas of the property except during emergencies. (Same as Mitigation Measure 7-2)</p>	SCAPOSD	SCRP, LandPaths, CalFIRE			
<p>Mitigation Measure 13-2 (Fire Protection): Taylor Mountain shall be closed during Red-Flag Warning Days, as determined by the National Weather Service for the San Francisco/Monterey Bay Weather Forecast Area. (Same as Mitigation Measure 7-3)</p>	SCAPOSD	LandPaths			
<p>Mitigation Measure 13-2 (Property Patrols): The Sonoma County Regional Parks Department shall assign staff as needed to patrol the Taylor Mountain property. The Volunteer Patrol shall continue to assist with this effort, as directed by LandPaths.</p>	SCAPOSD	SCRP, LandPaths			

KEY: (SCAPOSD) Sonoma County Agricultural Protection and Open Space District; (SCRP) Sonoma County Regional Parks; and, (CalFIRE) California Department of Forestry and Fire Protection

Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
Transportation/Traffic					
Mitigation Measure 15-1 (Site Distance): Shrubbery on the north side of Kawana Terrace shall be pruned back and/or removed to eliminate site distance obstruction.	SCAPOSD	SCRP			
Mitigation Measure 15-2 (Overflow Parking): Overflow parking for special events shall be accommodated on-site, within and outside the fenced staging area. The emergency gate at the staging area will be opened to access this area and a parking attendant will delineate the overflow area with construction-zone cones and assist with the overflow parking as needed.	SCAPOSD	LandPaths			
Mitigation Measure 15-3 (Special Events): Scheduling of special events at Taylor Mountain shall be coordinated with Sonoma Academy to avoid generating high traffic loads in the surrounding neighborhoods and vicinity.	SCAPOSD	LandPaths			
Mitigation Measure 15-4 (Bicycle Parking): A minimum of eleven bicycle parking spaces shall be provided at the staging area to meet County of Sonoma parking requirements.	SCAPOSD				

KEY: (SCAPOSD) Sonoma County Agricultural Protection and Open Space District; (SCRP) Sonoma County Regional Parks; and, (CalFIRE) California Department of Forestry and Fire Protection

Table 1
MITIGATION MONITORING PROGRAM
Taylor Mountain Interim Public Access Permit Program

Mitigation Measures	Monitoring Agency	Partner Agency	Shown on Plans	Constructed/ Installed	Remarks
Utilities					
<p>Mitigation Measure 16-1 (Chemical Toilet): The Sonoma County Regional Parks Department shall conduct inspections and maintenance according to current regulations of toilet facilities, and ensure that routine waste removal is conducted so that effluent spills are avoided or minimized. The licensed contractor will demonstrate adequate capacity at the facility where wastewater is to be disposed.</p>	SCAPOSD	SCRP			

KEY: (SCAPOSD) Sonoma County Agricultural Protection and Open Space District; (SCRP) Sonoma County Regional Parks; and, (CalFIRE) California Department of Forestry and Fire Protection

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4. Agencies and Organizations Consulted

- CalFIRE, California Department of Forestry and Fire Protection
- City of Santa Rosa, Departments of Recreation and Parks, Public Works, Community Development, Fire Department, Police Department, and Administrative Services -- Right-of-Way Division
- Jeff Jones, lessee grazing cattle on Taylor Mountain
- LandPaths
- Rincon Valley Fire Protection District
- Sonoma Academy
- Sonoma County Permit and Resources Management Department
- Sonoma County Regional Parks Department
- Sonoma County Sheriff's Department
- Sonoma County UC Cooperative Extension
- Sonoma County Water Agency

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5. Report Preparation

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Appendix D: Traffic Impact Study, Taylor Mountain Interim Access
Permit Program, Whitlock & Weinberger, Transportation
Consultants, August 18, 2009



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**Traffic Impact Study for
Taylor Mountain Interim Access
Permit Program**

in the

County of Sonoma

August 18, 2009

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Executive Summary

The focus of this evaluation was to identify the potential traffic impacts that would be expected upon development of the Taylor Mountain Interim Public Access Permit Program. The proposed project consists of limited recreational access to a portion of the Taylor Ranch property located at the easterly terminus of Kawana Terrace in southeastern Santa Rosa. The project is expected to generate an average 188 daily vehicle trips, including 47 new trips in the weekday p.m. peak hour and 47 new trips in the weekend midday peak hour.

Operating conditions during the weekday p.m. peak and weekend midday peak hours under Existing, Existing plus Project, Future and Future plus Project conditions were evaluated. The study area includes the primary access to the site on Kawana Terrace and the following study intersections.

1. Petaluma Hill Road/Kawana Springs Road
2. Kawana Springs Road/Franz Kafka Avenue

Both study intersections are expected to operate acceptably with and without the addition of project-generated traffic under current and future traffic conditions.

Vehicular access to the project will be provided via the driveway entrance that currently serves the property and the on-site Sonoma County Water Agency (SCWA) water tanks, with the driveway expected to continue operating adequately in terms of vehicular sight distance and two-way traffic. No significant impacts are projected associated with hauling horse trailers through the adjacent residential neighborhoods along Kawana Terrace to the west, as the current zoning and land uses of the residential parcels on the south side of this street permit horse boarding. The proposed widening of the site driveway to 20 feet will provide adequate emergency access, and the existing transit and bicycle facilities are expected to sufficiently serve the park.

Pedestrian access to the park will be provided via a pedestrian entrance at the northwest corner of the site, approximately 350 feet east of Meda Avenue, with an off-site pedestrian path proposed in order to connect the site and the adjacent residential neighborhoods to the west. This connection includes a midblock crossing of Kawana Terrace, which currently has somewhat restricted sight distance of westbound traffic due to the presence of shrubbery on the north side of the street. It is recommended that this shrubbery be cleared to provide adequate sight lines.

The proposed parking supply is expected to be adequate for daily operations, and implementation of the overflow parking plan will be necessary to adequately accommodate the increased demand associated with ongoing special events.

Introduction and Study Parameters

Introduction

This report presents an analysis of the potential traffic impacts that would be associated with development of an Interim Public Access Permit Program for a regional park to be located on the Taylor Ranch property along Kawana Terrace. The park site is located within unincorporated Sonoma County, though access to the site is via Kawana Terrace and adjoining streets within the City of Santa Rosa. The traffic study was completed in accordance with the criteria established by the County of Sonoma and the City of Santa Rosa and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a traffic impact study is to provide County of Sonoma and City of Santa Rosa staff and policy makers with data that they can use to make an informed decision regarding the potential traffic impacts of a proposed project, and any associated improvements that would be required in order to mitigate these impacts to a level of insignificance as defined by the County's or City's General Plan or other policies. Traffic impacts are typically evaluated by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on existing travel patterns or anticipated travel patterns specific to the proposed project, then analyzing the impact the new traffic would be expected to have on critical intersections or roadway segments.

Project Profile

Taylor Mountain is a 1,100 acre former ranch located southeast of the City of Santa Rosa along Kawana Terrace. The site was obtained by the Sonoma County Agricultural Preservation and Open Space District as open space and is currently used for limited grazing, with guided tours and infrequent special events. The project location is shown in Figure 1.

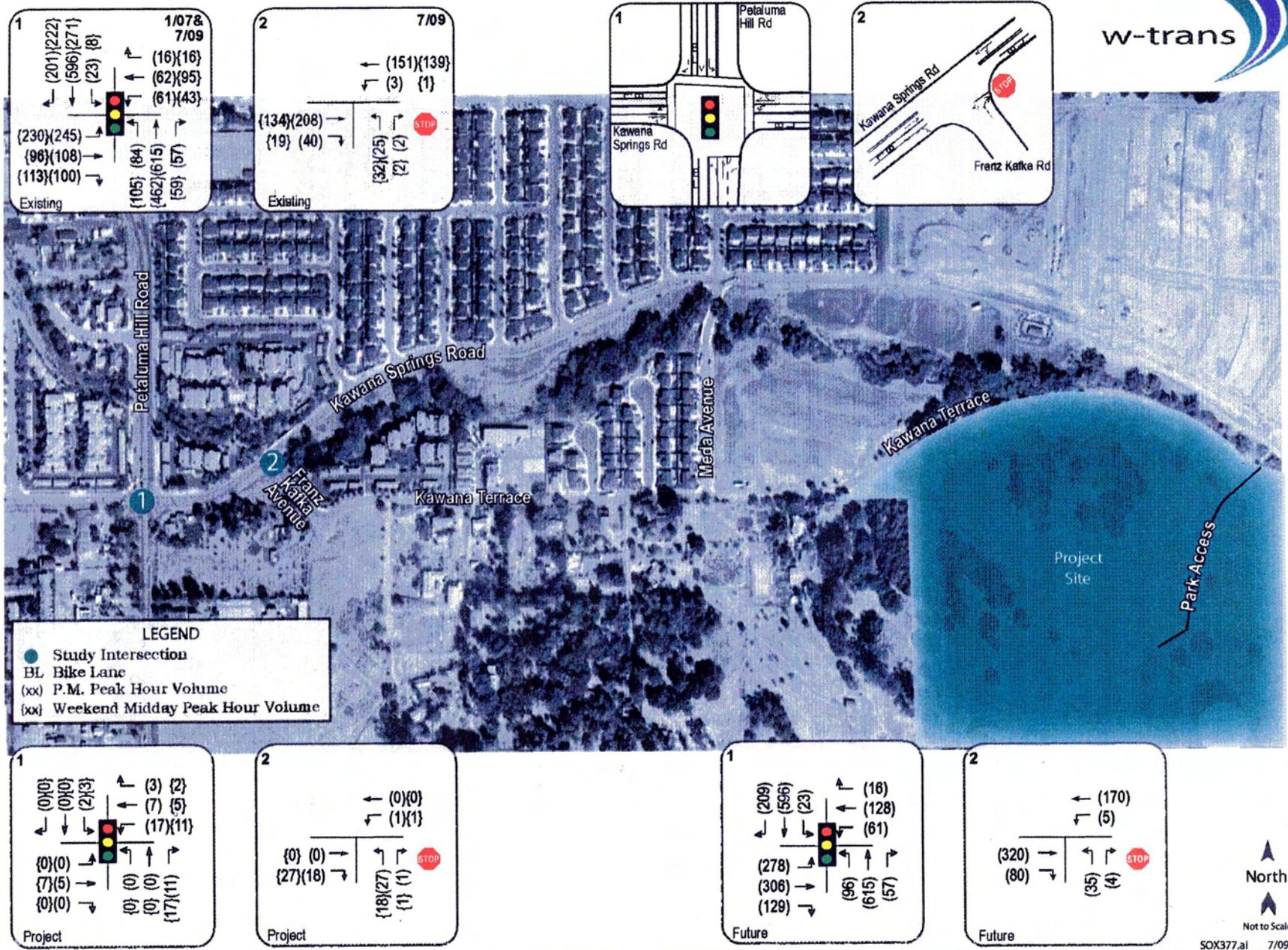
The Interim Public Access Permit Program would allow limited public access to approximately 823 acres of the site on a permit-only basis to individuals who complete an orientation program, with the number of permits increasing quarterly to a maximum of 2,500 permits. The Interim Public Access Permit Program will allow hiking as well as limited bicycle and horse riding. This permit program will allow access to the site while the Sonoma County Regional Parks Department and the Sonoma County Agricultural Preservation and Open Space District develop a comprehensive master plan.

Study Area and Periods

The study area consists of the following intersections:

1. Petaluma Hill Road/Kawana Springs Road
2. Kawana Springs Road/Franz Kafka Avenue

Operating conditions during the weekday p.m. and weekend midday peak periods were evaluated as these time periods reflect the highest traffic volumes area wide and for the proposed project. The evening peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion of the day during the homeward bound commute, while the weekend midday peak occurs between 11 a.m. and 1 p.m.



Taylor Mountain Interim Access Permit Program Traffic Impact Study
 County of Sonoma

Figure 1
 Lane Configurations and Traffic Volumes

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Levels of Service for intersections with side street stop controls, or those which are unsignalized and have one or two approaches stop-controlled, were analyzed using the "Two-Way Stop-Controlled" intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall age delay for the intersection.

The study intersections that are currently controlled by a traffic signal, or may be in the future, were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using optimized signal timing.

The ranges of delay associated with the various levels of service are indicated in Table 1.

Table 1
Intersection Level of Service Criteria

LOS	Two-Way Stop-Controlled	Signalized
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway Capacity Manual*, Transportation Research Board, 2000

Traffic Operation Standards

The City of Santa Rosa's adopted Level of Service (LOS) Standard is contained in *Santa Rosa 2020: General Plan*. Standard TD-1 states that the City will try to maintain a Level of Service (LOS) D or better along all major corridors. Exceptions to meeting this standard are allowed

- Within downtown;
- Where attainment would result in significant environmental degradation;
- Where topography or environmental impacts makes the improvement impossible; or
- Where attainment would ensure loss of an area's unique character.

Although the City's standard does not specify criteria for intersections, for the purposes of this study a minimum operation of LOS D was assumed for all signalized intersections. The LOS D standard was also applied to unsignalized intersections based on overall average delay. Mitigating measures, such as additional lanes or changes to phasing, were evaluated if operation dropped below these standards.

Baseline Conditions

Currently the project site is not open for public use except for guided tours and occasional events. Additional existing land uses include cattle grazing and maintenance of two water tanks on the site by the SCWA. These existing activities would be expected to continue generating very low volumes of traffic, with such traffic volumes captured within the existing traffic patterns.

Description of Study Area

The proposed project is located in the southeast portion of Santa Rosa. The proposed park will be located in unincorporated County of Sonoma, but the only access to the site is via City streets. Land uses in the vicinity of the proposed project are primarily residential with both single-family homes and multi-family apartment buildings. To the west of the proposed project is Santa Rosa Avenue, which is a major north-south arterial. Development along Santa Rosa Avenue consists of major retail and industrial uses. To the south and east of the proposed project site is mostly open space or agricultural land. The study area for this analysis consisted of the following two intersections within the vicinity of the project site:

1. Petaluma Hill Road/Kawana Springs Road
2. Kawana Springs Road/Franz Kafka Avenue

Study Intersections

Petaluma Hill Road/Kawana Springs Road is a four-legged signalized intersection with left turn lanes and protected/permitted left-turn phasing on all approaches. Striped bicycle lanes are provided on all approaches.

Kawana Springs Road/Franz Kafka Avenue is an unsignalized tee intersection with the northbound Franz Kafka Avenue approach stop-controlled. Striped bicycle lanes are provided on both Kawana Springs Road approaches.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Study Segment

Kawana Terrace is a local street with a prima facie speed limit of 25 mph, serving middle- to high-density residential neighborhoods on the north side of the street and rural residential properties on the south side. The street is approximately 30 feet wide with sidewalk on the north side, and approximately two-thirds of a mile in length, with one intersecting street, Meda Avenue, mid-segment. The street terminates at the east end directly adjacent to the project entrance. The average daily traffic on Kawana Terrace is estimated to be less than 1,000 vehicles.

Intersection Operation

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday p.m. peak period and weekend midday peak period. This condition does not include project-generated traffic volumes, though traffic associated with existing uses on the project site are included.

Under existing conditions, both intersections operate acceptably. The existing traffic volumes are shown in Figure 1. A summary of the intersection level of service calculations is contained in Table 2, and copies of the Level of Service calculations are provided in Appendix A.

Table 2
Summary of Existing Peak Hour Intersection Level of Service Calculations

Study Intersection Approach	Existing Conditions				Existing plus Project			
	PM Peak Delay	Midday Peak LOS	PM Peak Delay	Midday Peak LOS	PM Peak Delay	Midday Peak LOS	PM Peak Delay	Midday Peak LOS
1. Petaluma Hill Rd/Kawana Springs Rd	19.9	B	22.5	C	20.6	C	22.8	C
2. Kawana Springs Rd/Franz Kafka Ave	0.8	A	1.1	A	1.4	A	1.5	A
<i>Northbound Franz Kafka Ave</i>	<i>11.1</i>	<i>B</i>	<i>10.4</i>	<i>B</i>	<i>11.6</i>	<i>B</i>	<i>10.6</i>	<i>B</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service
Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Future Conditions

The City of Santa Rosa's 2020 traffic model was used to determine anticipated Future traffic volumes. The projected future traffic volumes were less than existing counts for movements at some of the study intersections. This decrease is potentially due to diversion associated with the proposed Farmers Lane extension. However, in order to be conservative, existing traffic volumes were used as a "floor" when developing future volumes. Also, since the Santa Rosa Traffic model provides only p.m. peak hour volumes, future weekend midday peak hour conditions were not analyzed.

Under the anticipated Future volumes, both study intersections are expected to operate acceptably. Future volumes are shown in Figure 1 and operating conditions are summarized in Table 3 with Level of Service calculations included in Appendix A.

Table 3
Summary of Future PM Peak Hour Level of Service Calculations

Study Intersection Approach	Future Conditions		Future plus Project	
	Delay	LOS	Delay	LOS
1. Petaluma Hill Rd/Kawana Springs Rd	24.4	C	25.0	C
2. Kawana Springs Rd/Franz Kafka Ave	0.9	A	1.4	A
<i>Northbound Franz Kafka Ave</i>	<i>12.4</i>	<i>B</i>	<i>13.0</i>	<i>B</i>

Notes: Delay is measured in average seconds of delay per vehicle, LOS = Level of Service
Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Collision History

The collision histories for both study intersections were reviewed to determine any trends or patterns that may indicate a safety issue. The most recent available collision records from 2005 through 2008 obtained from the California Highway Patrol and published in their Statewide Integrated Traffic Records System (SWITRS) reports. For the three-year study period, no collisions were reported at Kawana

Springs Road/Franz Kafka Avenue, indicating that the intersection is operating acceptably overall in terms of traffic safety. There were 21 reported collisions at the intersection of Petaluma Hill Road/Kawana Springs Road during the study period and upon review there was evidence of a pattern of crashes involving northbound left-turning and southbound through vehicles. Such a pattern could likely be resolved by modifying the traffic signal operations from protected-permitted phasing to protected-only phasing for the northbound and southbound approaches. This information was forwarded to City of Santa Rosa staff for their use. A copy of the collision records is included in Appendix B.

Alternative Modes of Transportation

Along with vehicular transportation, alternative modes of transportation were considered.

Transit

The region is served by Santa Rosa City Bus Routes 5 and 18, with the nearest bus stops located on Kawana Springs Road west of Petaluma Hill Road and on Petaluma Hill Road north of Kawana Springs Road.

Bicycle

Both Kawana Springs Road and Petaluma Hill Road include on-street, Class II bicycle lanes. The City of Santa Rosa Bicycle and Pedestrian Master Plan does not identify either Franz Kafka Avenue or Kawana Terrace as locations of proposed bicycle facilities, though it does include a proposed extension of the Colgan Creek Bicycle Trail, which is south east of Petaluma Hill Road within the area. This path also appears in the Sonoma County Transportation Authority Bicycle and Pedestrian Plan and is intended to serve as a connection between Santa Rosa Avenue and the Taylor Mountain park site. A portion of Colgan Creek is located parallel to and north of Kawana Terrace east of Meda Avenue.

Pedestrian

Sidewalks are provided along the north side of Kawana Springs Road, both sides of Petaluma Hill Road north of Kawana Springs Road, the east side of Franz Kafka Avenue and the north side of Kawana Terrace west of Meda Avenue. On Kawana Terrace east of Meda Avenue and near the proposed project access point sidewalks are not present, which is consistent with the rural nature of the street.

Project Conditions

Project Description

The proposed Taylor Mountain Interim Public Access Permit Program project consists of allowing interim public access on a permit basis to a portion of the Taylor Ranch property. While the property has approximately 1,100 acres of open space, just 823 acres will be open for limited recreational use to permit-holders under the Interim Access Permit Program. In addition to hiking and the special events that are currently held, bicycling and horse riding activities will be permitted. These activities would replace the existing guided tours, though special events would continue to be held. These events include organized day-time and night-time hikes, school education trips, 4th of July fireworks viewing, and volunteer training. A list of these ongoing events for 2002-2008 is provided in Appendix C.

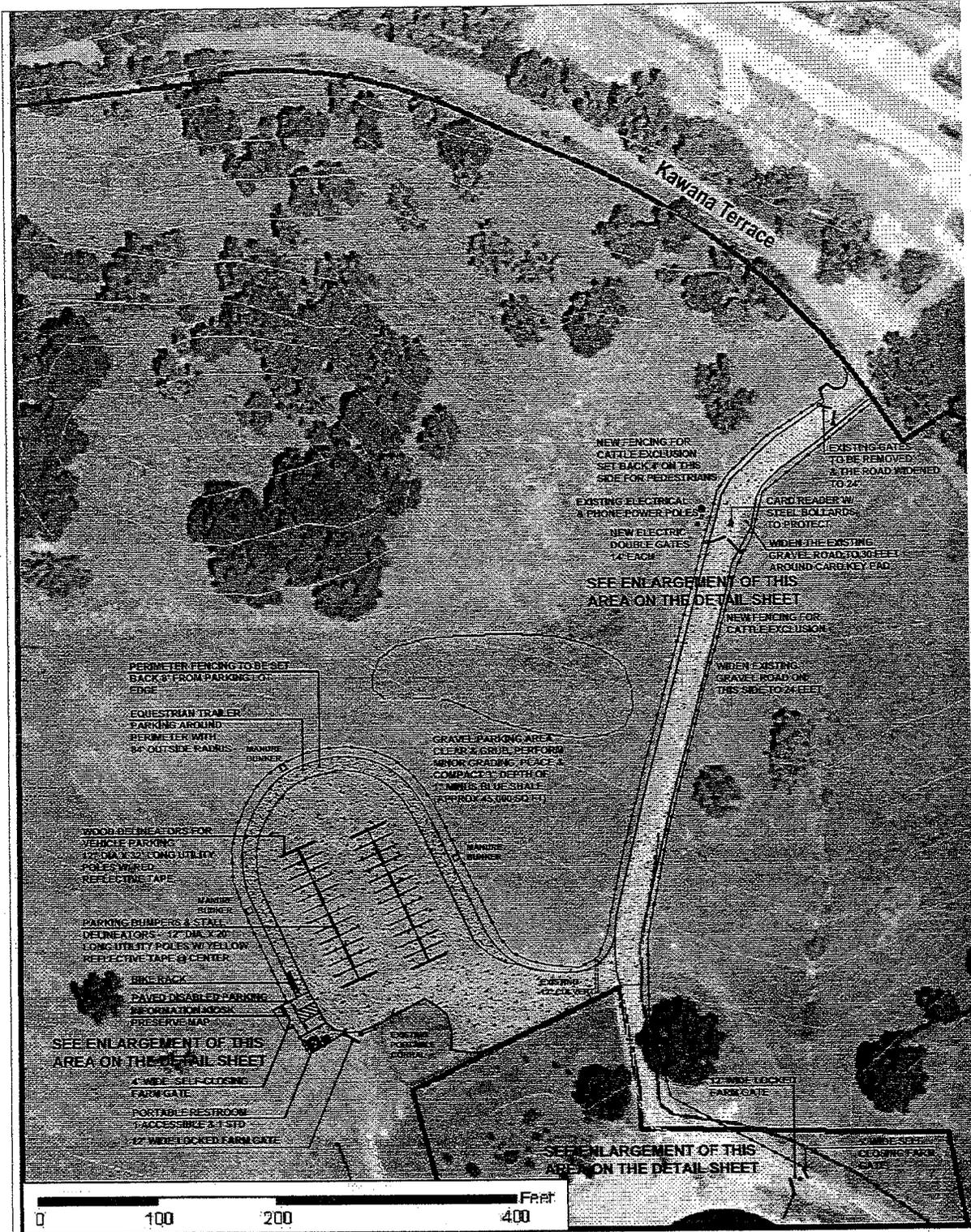
The project would allow a maximum of 2,500 permits to be issued to interested public members who attend an orientation and stewardship training regarding the appropriate use of the property. Permits would be issued and released gradually, in groups of 500 per calendar quarter, as members go through the orientation and training until the 2,500 maximum permits are issued. Each person who obtains a permit would be allowed to bring up to three guests to the site at any given time during daylight hours. These permitted visitors and their respective guests would be able to drive separately to the site, though entrance to the site will be gated and require key-pad code to unlock and enter. Only permitted users would be given the code, requiring guests that drive separately to enter the site with their host. The gates and perimeter fencing provide access control. The proposed project site plan is shown in Figure 2.

Permit holders would be allowed to hike on three pedestrian-only mowed paths, including a western route, an eastern route and a connector between the two. Equestrian and bicyclist visitors would be permitted to ride on the existing ranch roads, with initial activities limited to the eastern route up to the top of Taylor Mountain. After armoring two creek crossings on the western route, equestrians and bicyclists would be allowed on the western route during dry weather. Special event attendees would also be restricted to these three routes.

Trip Generation

Generally, the anticipated trip generation for proposed projects is estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation*, 8th Edition, 2008. However, the publication does not contain information relative to the Interim Public Access Permit Program such as restricted access and restricted park areas. Therefore, the trip generation was based on visitor information collected by Sonoma County Regional Parks staff as part of their ongoing operation of numerous County parks. Specifically, the trip generation potential was assumed to occur at the same rate as a comparable regional park, Shiloh Ranch Regional Park, which is located at 5750 Faught Road near northwest Windsor. Shiloh Ranch Regional Park is comparable in size, with 847 acres, and like the project site is located close to urban areas.

Visitor information for Shiloh Ranch Regional Park includes counts of visitors who enter the park, which requires paying a park user fee, as well as visitors who walk in and avoid the fee. Together, these "free day use" and "paid day use" visitors account for the total visitor counts. Records for the 2008 calendar year indicate a total count ranging between 3,107 and 7,347 visitors per month. Depending on the number of days in the month, the rate of visitors to Shiloh Ranch Regional Park varied, with an annual average daily rate of 161 visitors per day. This park is 847 acres, resulting in an annual average daily rate of 0.19 visitors per day per acre. Visitor information data is provided in Appendix C.



North
 ↑
 Not to Scale

Source: Sonoma County Regional Parks

7109

SOX377.ai 7/09

Taylor Mountain Interim Access Permit Program Traffic Impact Study Figure 2
 County of Sonoma Site Access and Parking

Applying this rate to the 823-acre project results in a projected average of 156 visitors expected daily. Visitors are assumed to arrive and depart with an average occupancy of 2.5 visitors per vehicle, resulting in an expected 62 vehicles arriving and departing, combining for a total 124 average daily vehicle trips.

Park traffic levels would be expected to be higher in the spring and fall months than during wet winter or hot summer months, with an estimated peak of approximately 150 percent of the average daily traffic, or 188 daily trips. To provide a conservative evaluation, it was assumed that 25 percent of the project-generated trips will occur during the weekday p.m. peak hour and the weekend midday peak hour, or 47 hourly trips would be expected during these peak hours.

The directional splits of traffic entering and exiting the project site were developed using the published standard rates for County Park (ITE Land Use 412).

The trip generation potential for the proposed project is indicated in Table 4, with the calculations provided in Appendix D.

**Table 4
Trip Generation Summary**

Land Use	Units	Peak Daily	PM Peak Hour			Weekend Midday Peak Hour		
		Trips	Trips	In	Out	Trips	In	Out
Taylor Mountain Permit Program	823 acres	188	47	28	19	47	19	28

It should be noted that if all 2,500 park permit users visited the park during the same month and all permittees brought two visitors, the monthly visitor count would reach 7,500 visitors, roughly equivalent to the busiest month at Shiloh Ranch Regional Park. This scenario is very unlikely to develop. Also noteworthy is that Shiloh Ranch Regional Park is open to the public while Taylor Mountain would be open on a permit basis only. Therefore, it is very conservative to assume that the trip generation rates for these two parks are comparable. It is much more likely that these visitor levels will not develop at Taylor Mountain until such time as the access restrictions are removed and additional trail facilities provided to attract visitors from the general population.

Trip Distribution

The pattern used to allocate new project trips to the street network was based on regional travel patterns and the expectation that the proposed project will draw visitors predominantly from Santa Rosa and nearby surrounding areas. The applied distribution assumptions and resulting trips are shown in Table 5.

**Table 5
Trip Distribution Assumptions**

Route	Percent	Daily Trips	PM Trips	Weekend Midday Trips
Kawana Springs Rd to/from west	25%	47	12	12
Kawana Springs Rd to/from east	5%	9	2	2
Petaluma Hill Rd to/from south	60%	113	28	28
Petaluma Hill Rd to/from north	10%	19	5	5
TOTAL	100%	188	47	47

Project traffic volumes are shown in Figure I.

Intersection Operations

Existing plus Project Conditions

Upon the addition of project-related traffic to the existing volumes, both study intersections are expected to operate acceptably during both peak periods. These results are summarized in Table 2 and copies of the Level of Service calculations are provided in Appendix A.

Impact: The study intersections are expected to continue operating acceptably at the same levels of service upon the addition of project-generated traffic.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated Future volumes, both study intersections are expected to operate acceptably. The Future plus Project operating conditions are summarized in Table 3, with Level of Service calculations included in Appendix A.

Impact: All study intersections will continue operating with acceptable Levels of Service with the project as without it.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Collision Analysis

The collision history summarized previously indicates that there is a pre-existing safety concern at the intersection of Petaluma Hill Road/Kawana Springs Road due to the pattern of northbound left-turning crashes. However, no project traffic would contribute to this movement so there is no impact identified.

Impact: The project trip distribution would not result in any northbound left-turning vehicles at the intersection of Petaluma Hill Road/Kawana Springs Road so there is no contribution to a pre-existing safety concern involving this movement.

Recommendation: The project's impact is less-than-significant so no improvement is necessary.

Alternative Modes of Transportation

Transit

Existing transit service is expected to adequately serve the project site and no modifications to transit service are proposed or recommended for the proposed project.

Impact: Existing transit service is expected to adequately serve the project.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Bicycle

All proposed bicycle facilities identified in the *Santa Rosa Bicycle and Pedestrian Master Plan* and the *SCTA Bicycle and Pedestrian Plan* in the vicinity of the proposed project have been constructed except for the proposed Colgan Creek Bicycle Trail. At such time as this trail is constructed, it would provide enhanced bicycle and pedestrian access to the project site. Bicycle facilities are not proposed for Franz Kafka Avenue or Kawana Terrace, and due to the residential nature of Kawana Terrace and Franz Kafka Avenue, these streets are expected to adequately serve bicycles without additional facilities.

Impact: Existing bicycle facilities are expected adequately serve the project site.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Pedestrian

The project is expected to generate pedestrian trips from residents living in the area, and a pedestrian access is proposed near the northwest corner of the site approximately 350 feet east of Meda Avenue.

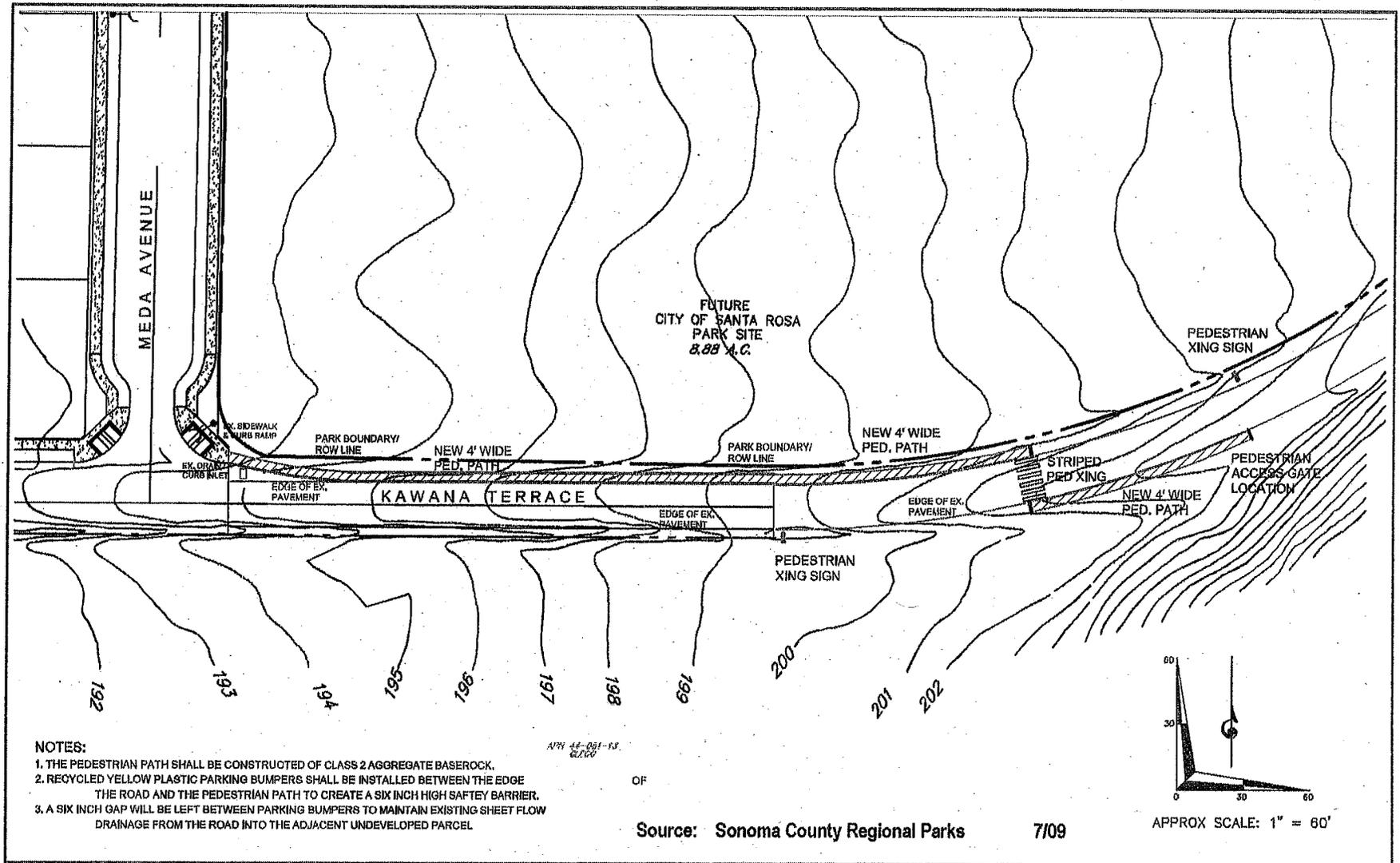
In the Santa Rosa General Plan Goal T-K, the following pedestrian access goal is established:

Develop a safe, convenient, and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas, and employment centers.

Currently Kawana Terrace does not have a sidewalk east of Meda Avenue. To ensure the safe travel of pedestrians between the site and the adjacent neighborhoods several off-site improvements are proposed as shown in Figure 3. Specifically, a continuous pedestrian path is to be provided on the north side of Kawana Terrace between the adjacent residences and the pedestrian entrance, and a marked and signed crosswalk is to be installed on Kawana Terrace between the terminus of this path on the north side of the street and the pedestrian entrance on the south side. Westbound motorists would have sight distance limited to 140 feet by shrubbery on the north side of the street, which is less than the recommended 150 feet stopping sight distance necessary for a 25 mph street. Clearing the shrubs would provide adequate sight distance.

Impact: Sight distance at the mid-block crosswalk to be installed as part of off-site pedestrian facilities would be slightly less than the recommended minimum sight distance for westbound Kawana Terrace.

Recommendation: Shrubbery on the north side of the street near the proposed crosswalk should be removed to eliminate the sight obstruction.



- NOTES:
1. THE PEDESTRIAN PATH SHALL BE CONSTRUCTED OF CLASS 2 AGGREGATE BASEROCK.
 2. RECYCLED YELLOW PLASTIC PARKING BUMPERS SHALL BE INSTALLED BETWEEN THE EDGE OF THE ROAD AND THE PEDESTRIAN PATH TO CREATE A SIX INCH HIGH SAFETY BARRIER.
 3. A SIX INCH GAP WILL BE LEFT BETWEEN PARKING BUMPERS TO MAINTAIN EXISTING SHEET FLOW DRAINAGE FROM THE ROAD INTO THE ADJACENT UNDEVELOPED PARCEL.

Site Access

Access to Taylor Mountain will be provided via a gated driveway on the existing entrance at the eastern terminus of Kawana Terrace.

Vehicular Sight Distance

Sight distance from the proposed vehicular access on Kawana Terrace was evaluated based on sight distance criteria contained in the Caltrans *Highway Design Manual*, 6th Edition. The applicable criterion for rural driveways on a public street is based on stopping sight distance.

Kawana Terrace is a local street with a prima facie speed limit of 25 mph. For a 25-mph design speed, a rural driveway intersection should have stopping sight distance of 150 feet or greater. The measured sight distance to the west is 138 feet, and as Kawana Terrace terminates east of the project site, sight distance to the east is not applicable. However, the configuration of the road terminus and the area driveways combine to render application of the sight distance criteria unnecessary. In other words, the only eastbound approaching traffic would be expected to slow down to turn and enter the site or to enter the residential driveway immediately adjacent to the east. In either case, the travel speed of these vehicles is expected to be closer to 20 mph than to the posted speed, making the available sight distance adequate for the prevailing approach speed since the recommended sight distance for a 20-mph design speed is 125 feet.

Impact: Given the nature of Kawana Terrace and the location of the driveway at the end of the street, existing sight distance is expected to be adequate.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Emergency Access

The Sonoma County Fire Safe Standards were consulted to determine if the proposed access meets applicable emergency access standards. The standards examined for this study included driveway width, length and grade as well as gate access. A private driveway is required to be at least ten feet wide, driveways longer than 150 feet are required to provide a turnout midway for a total section width of 20 feet and the grade cannot exceed 15 percent.

The proposed project will provide a 24-foot wide driveway for the entire section, exceeding the turnout total section width of 20 feet, making additional turnouts unnecessary. The driveway grade varies between 5 and 16 percent, with an estimated average 13 percent grade. Park planning staff consulted with Santa Rosa Fire Department staff regarding emergency access. The Department's District Chief toured the site and considered the driveway grade acceptable as there are no structures planned for the property.

Gate entrances must be at least two feet wider than the approaching travel lanes. The approaching lanes are approximately ten to twelve feet wide and the proposed gate is 24 feet wide which exceeds the minimum required width.

Impact: The project driveway is expected to meet Sonoma County Fire Safe Standards for driveway width, grade and gate access.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Horse Trailer Access

The parcels along the south side of Kawana Terrace are zoned Rural Residential (RR-B6-20) which allows for the raising of horses. Because of this zoning, it is reasonable to expect trucks with horse trailers to currently travel along Kawana Terrace. Therefore, allowing equestrian activities at Taylor Mountain is consistent with current traffic patterns in the vicinity.

Impact: The use of horse trailers is currently allowed and expected on Kawana Terrace, therefore allowing horse trailer access to Taylor Mountain is consistent with the current use.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Future Site Access

Vehicular access to the site is currently provided by a driveway on Kawana Terrace, which is designated as a minor street by City of Santa Rosa staff and conditions of approval for an area residential project, Children's Village located at 1321 Kawana Terrace. Future site access may change as part of the City of Santa Rosa Farmers Lane Extension capital improvement project. At such time as the comprehensive master plan for this park site is implemented, public vehicular site access from Kawana Terrace should be eliminated and an alternative access created from a major arterial street such as Kawana Springs Road, Farmers Lane Extension or Petaluma Hill Road. The park is a regional facility rather than a local or neighborhood park, and minor residential streets such as Kawana Terrace are not designed to accommodate regional traffic.

It should be noted that while *public* vehicular access should be eliminated, ongoing *municipal* traffic is expected to continue using Kawana Terrace due to ongoing operations and maintenance of the site and the SCWA water tanks.

Parking

The proposed project includes 48 standard vehicle parking spaces, six horse trailer parking spaces and two disabled accessible parking spaces. These parking spaces will be available only to permit holders on a first-come first-served basis. Due to the narrow nature of Kawana Terrace and the presence of vegetation on the shoulder, limited on-street parking is available estimated to provide approximately six additional parking spaces immediately across from the park entrance. The total on-site and off-site parking supply is estimated to be 62 parking spaces. It should be noted that additional on-street parking is theoretically available on Meda Avenue, but since this street is over 2,000 feet west of the park entrance, it is considered to be an infeasible location for project parking.

The County of Sonoma parking standards do not include requirements for regional parks so additional sources were consulted. *Parking Standards*, published by the American Planning Association, 2002, states that regional parks can be considered the same as forest preserves which require "sufficient open land available for parking so that no vehicles need be parked on any street." Considering that a maximum of 47 vehicles are expected to travel to and from the park during peak periods, of which 28 trips are expected to be inbound, the supply of 48 standard parking spaces plus additional horse trailer and disabled accessible parking is expected to be sufficient.

Impact: The project is expected to provide adequate on-site parking for daily operations.

Recommendation: The project's impact is less-than-significant, so no improvements are needed.

Special Events

Special events will continue to be held at the project site. These events include organized day-time and night-time hikes, school education trips, 4th of July fireworks viewing, and volunteer training. A list of these ongoing events for 2002-2008 is provided in Appendix B. While these records indicate that the maximum special event attendance during that time period was 190 visitors for the 4th of July event, the same event scheduled in July 2009 drew an estimated crowd of 250 visitors. Therefore, the maximum parking demand is based upon the July 4, 2009, special event. Assuming a vehicle occupancy of 2.5 visitors, this event would require 100 parking spaces, resulting in the current supply being deficient by 38 parking spaces.

To meet maximum expected parking demand, an over-flow parking plan has been developed. The plan will use the area directly west of the proposed parking lot and staging area as an overflow parking area, accessed via the 12-foot wide farm gate to be located as shown on Figure 2. A parking attendant would direct cars and use construction zone cones to delineate the overflow area.

Impact: The project is expected to provide adequate parking for a maximum-sized special event upon implementation of the over-flow parking plan.

Recommendation: The project's impact is less-than-significant, so no changes are necessary.

Bicycle Parking

The project as proposed includes bicycle parking racks. County of Sonoma parking requirements indicate that one bicycle parking space is needed for every five vehicle parking spaces. Based on this standard, Taylor Mountain Park is required to provide eleven bicycle parking spaces.

Impact: The project will provide on-site bicycle parking.

Recommendation: To meet County of Sonoma parking requirements, at least eleven bicycle parking spaces are required.

Conclusions and Recommendations

Conclusions

- The proposed project is expected to generate an average of 188 daily trips, including 47 weekday p.m. peak hour trips and 47 weekend midday peak hour trips.
- Due to the location of the vehicular driveway at the terminus of Kawana Terrace, the existing sight distance is expected to be adequate.
- Both study intersections operate acceptably under existing conditions and are expected to continue to operate acceptably in the future and with project-added trips.
- The collision history indicates that there is a pre-existing safety concern at the intersection of Petaluma Hill Road/Kawana Springs Road due to the pattern of northbound left-turning crashes, though no project traffic would contribute to this movement and no significant impact is expected.
- The proposed parking supply of 56 on-site parking spaces plus six off-site parking spaces is expected to be adequate for daily operations, but not for special events. An over-flow parking plan has been developed and will be implemented when parking demand exceeds supply.
- The proposed driveway width and gate access meet Sonoma County Fire Safe Standards for emergency access, and the driveway grade is adequate per Santa Rosa Fire Department staff.
- Existing transit services and bicycle facilities are expected to adequately serve the proposed project.
- A pedestrian access is proposed near the northwest corner of the site, and off-site pedestrian facilities include a pedestrian path and crosswalk on Kawana Terrace that will provide a connection between this access and residences in the area. Sight distance of the mid-block crosswalk would be slightly less than the recommended minimum stopping sight distance for westbound Kawana Terrace.
- The use of horse trailers on Kawana Terrace is consistent with the existing adjacent land uses and no significant impacts are expected relative to the project's proposed equestrian activities.
- Future site access may change as part of the City of Santa Rosa Farmers Lane Extension capital improvement project.

Recommendations

- Since both study intersections are expected to operate acceptably during all study periods, no mitigating measures are recommended.
- To meet maximum expected parking demand, the over-flow parking plan should be implemented, to allow parking in the area directly west of the proposed parking lot and staging area with guidance provided by a parking attendant to direct drivers to the overflow area.
- A minimum of eleven bicycle parking spaces should be provided.
- Clear the shrubbery on the north side of the street near the proposed crosswalk to eliminate the westbound sight obstruction.

- At such time as the comprehensive master plan for this park site is implemented, public vehicular site access from Kawana Terrace should be eliminated and an alternative access created from a major arterial street such as Kawana Springs Road, Farmers Lane Extension or Petaluma Hill Road.

Study Participants and References

Study Participants

Principal in Charge: Steve Weinberger, P.E., PTOE
Traffic Engineer: Mary Jo Yung, P.E., PTOE
Assistant Engineer: Tony Henderson, EIT
Technician/Graphics: Deborah Dunn
Editing/Formatting: Angela McCoy
Report Review: Dalene J. Whitlock, P.E. PTOE

References

Highway Capacity Manual, Transportation Research Board, 2000
Highway Design Manual, 6th Edition, California Department of Transportation, 2006
Parking Standards, American Planning Association, Planning Advisory Service, Report Number 510/511, 2002
Santa Rosa 2020: General Plan, City of Santa Rosa, 2002
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SCTA Bicycle and Pedestrian Plan, Sonoma County Transportation Authority, 2008
Sonoma, CA County Code, LexisNexis, 2008
Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol, 2003-2007
Trip Generation, 8th Edition, Institute of Transportation Engineers, 2008

Communications

Site visit with Michael Jones, District Chief of the Santa Rosa Fire Department and Sonoma County Regional Parks staff, August 3, 2009 regarding adequacy of emergency access.

Email exchange with Lee Taylor, Associate Civil Engineer of the Santa Rosa Engineering Development Services Division, August 3, 2009 regarding Kawana Terrace street design.



Appendix A

Intersection Level of Service Calculations

PM Peak Hour - Existing Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Petaluma Hill Rd/Kawana Springs Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.650
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: 43 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes for Petaluma Hill Rd and Kawana Springs Rd.

Volume Module table showing Count, Date (30 Jan 2007), and various traffic volume metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, etc.

Note: Queue reported is the number of cars per lane.

Weekend Midday Peak Hour - Existing Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Petaluma Hill Rd/Kawana Springs Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.469
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 30 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes for Petaluma Hill Rd and Kawana Springs Rd.

Volume Module table showing Count, Date (18 Jul 2009), and various traffic volume metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, etc.

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Kawana Springs Rd/Franz Kafka Rd

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[11.1]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes for Franz Kafka Rd and Kawana Springs Rd.

Table with columns for Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with columns for Critical Gap Module, Critical Gap, FollowUpTim.

Table with columns for Capacity Module, Conflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Weekend Midday Peak Hour - Existing Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Kawana Springs Rd/Franz Kafka Rd

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[10.4]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes for Franz Kafka Rd and Kawana Springs Rd.

Table with columns for Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with columns for Critical Gap Module, Critical Gap, FollowUpTim.

Table with columns for Capacity Module, Conflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Trip Generation Report

Forecast for pm

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Taylor Mountai	19.00	28.00	19	28	47	100.0
	Zone 1 Subtotal					19	28	47	100.0
TOTAL						19	28	47	100.0

Weekend Midday Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Trip Generation Report

Forecast for md

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1.00	Taylor Mountai	28.00	19.00	28	19	47	100.0
	Zone 1 Subtotal					28	19	47	100.0
TOTAL						28	19	47	100.0

PM Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Petaluma Hill Rd/Kawana Springs Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.657
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6
Optimal Cycle: 43 Level Of Service: C

Street Name:	Petaluma Hill Rd				Kawana Springs Rd			
	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T - R	L	T - R	L	T - R	L	T - R
Control:	Prot+Permit		Prot+Permit		Prot+Permit		Prot+Permit	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Lanes:	1	0 1 1 0	1	0 1 0 1	1	0 0 1 0	1	0 0 1 0

Volume Module:	>> Count	Date:	30 Jan 2007	<< 5:00 - 6:00 pm									
Base Vol:	84	615	57	23	596	201	245	108	100	61	62	16	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	84	615	57	23	596	201	245	108	100	61	62	16	
Added Vol:	0	0	11	2	0	0	0	5	0	17	7	3	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	84	615	68	25	596	201	245	113	100	78	69	19	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
PHF Volume:	93	683	76	28	662	223	272	126	111	87	77	21	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	93	683	76	28	662	223	272	126	111	87	77	21	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Volume:	93	683	76	28	662	223	272	126	111	87	77	21	

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.97	0.97
Lanes:	1.00	1.80	0.20	1.00	1.00	1.00	1.00	0.53	0.47	1.00	0.78	0.22
Final Sat.:	1805	3202	354	1805	1900	1615	1805	937	830	1805	1442	397

Capacity Analysis Module:	Vol/Sat:	0.05	0.21	0.21	0.02	0.35	0.14	0.15	0.13	0.13	0.05	0.05	0.05
Crit Moves:	****				****			****			****		
Green/Cycle:	0.63	0.57	0.57	0.57	0.53	0.53	0.33	0.23	0.23	0.16	0.08	0.08	
Volume/Cap:	0.28	0.38	0.38	0.07	0.66	0.26	0.55	0.59	0.59	0.36	0.66	0.66	
Delay/Veh:	12.7	12.0	12.0	9.6	18.5	12.9	28.0	36.6	36.6	37.7	54.8	54.8	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	12.7	12.0	12.0	9.6	18.5	12.9	28.0	36.6	36.6	37.7	54.8	54.8	
LOS by Move:	B	B	B	A	B	B	C	D	D	D	D	D	
HCM2k95thQ:	3	13	13	1	27	7	14	14	14	5	8	8	

Note: Queue reported is the number of cars per lane.

Weekend Midday Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Petaluma Hill Rd/Kawana Springs Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.473
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 30 Level Of Service: C

Street Name:	Petaluma Hill Rd				Kawana Springs Rd			
	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T - R	L	T - R	L	T - R	L	T - R
Control:	Prot+Permit		Prot+Permit		Prot+Permit		Prot+Permit	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Lanes:	1	0 1 1 0	1	0 1 0 1	1	0 0 1 0	1	0 0 1 0

Volume Module:	>> Count	Date:	18 Jul 2009	<< 12:45 - 1:45 pm									
Base Vol:	105	462	59	8	271	222	230	96	113	43	95	16	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	105	462	59	8	271	222	230	96	113	43	95	16	
Added Vol:	0	0	17	3	0	0	0	7	0	11	5	2	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	105	462	76	11	271	222	230	103	113	54	100	18	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
PHF Volume:	117	513	84	12	301	247	256	114	126	60	111	20	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	117	513	84	12	301	247	256	114	126	60	111	20	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Volume:	117	513	84	12	301	247	256	114	126	60	111	20	

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	1.00	0.85	0.95	0.92	0.92	0.95	0.98	0.98
Lanes:	1.00	1.72	0.28	1.00	1.00	1.00	1.00	0.48	0.52	1.00	0.85	0.15
Final Sat.:	1805	3035	499	1805	1900	1615	1805	835	916	1805	1573	283

Capacity Analysis Module:	Vol/Sat:	0.06	0.17	0.17	0.01	0.16	0.15	0.14	0.14	0.14	0.03	0.07	0.07
Crit Moves:	****				****			****			****		
Green/Cycle:	0.49	0.45	0.45	0.35	0.33	0.33	0.33	0.47	0.36	0.36	0.24	0.15	0.15
Volume/Cap:	0.25	0.37	0.37	0.04	0.47	0.46	0.38	0.38	0.38	0.38	0.18	0.47	0.47
Delay/Veh:	15.2	18.1	18.1	21.1	26.8	26.7	17.1	24.0	24.0	30.4	40.2	40.2	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	15.2	18.1	18.1	21.1	26.8	26.7	17.1	24.0	24.0	30.4	40.2	40.2	
LOS by Move:	B	B	B	C	C	C	C	B	C	C	C	D	D
HCM2k95thQ:	4	12	12	1	14	12	10	11	11	3	8	8	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Kawana Springs Rd/Franz Kafka Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B [11.6]

Street Name: Franz Kafka Rd Kawana Springs Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0

Table with columns: Volume Module, Count, Date, 16 Jul 2009, 5:00 - 6:00 pm. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Cp, FollowUpTim. Values: 6.4 6.5 6.2, 4.1, 3.5 4.0 3.3, 2.2.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Values: 408 408 231, 296, 603 536 813, 1277, 0.10 0.00 0.00.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Weekend Midday Peak Hour - Existing plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Kawana Springs Rd/Franz Kafka Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B [10.6]

Street Name: Franz Kafka Rd Kawana Springs Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 1 0 0

Table with columns: Volume Module, Count, Date, 18 Jul 2009, 12:15 - 1:15 pm. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Cp, FollowUpTim. Values: 6.4 6.5 6.2, 4.1, 3.5 4.0 3.3, 2.2.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Values: 308 308 149, 200, 689 610 903, 1384, 0.08 0.00 0.00.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #1 Petaluma Hill Rd/Kawana Springs Rd
Cycle (sec): 100
Loss Time (sec): 8 (Y+R=4.0 sec)
Optimal Cycle: 55
Critical Vol./Cap. (X): 0.746
Average Delay (sec/veh): 25.0
Level Of Service: C

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future plus Project Conditions
Taylor Mountain Access Traffic Impact Study
County of Sonoma

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
Intersection #2 Kawana Springs Rd/Franz Kafka Rd
Average Delay (sec/veh): 1.4
Worst Case Level Of Service: B [13.0]
Street Name: Franz Kafka Rd, Kawana Springs Rd
Approach: North Bound, South Bound, East Bound, West Bound
Control: Stop Sign, Stop Sign, Uncontrolled, Uncontrolled
Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume

Note: Queue reported is the number of cars per lane.

Appendix B

Collision History

SOX377 Petaluma Hill Road at Kawana Springs Road

Collision Report Summary

8/14/2009

Date Range Reported: 10/1/05 - 9/30/08

Total Number of Collisions: 21

Page 1

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
2354804	11/22/05	17:30	Kawana Springs Rd & Petaluma Hill Rd	110'	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Other	3	0	
2353634	11/28/05	18:55	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Head-On	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Improper Turning	0	0	
2417446	12/15/05	18:02	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Improper Turning	0	0	
2488771	12/30/05	19:02	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0	
2425190	1/1/06	02:08	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Improper Turning	2	0	
2467136	1/28/06	15:35	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Head-On	Other Motor Vehicle	North	Proceeding Straight	South	Stopped in Road	Driving Under Influence	2	0	
2520050	2/17/06	21:53	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0	
2520677	2/26/06	16:46	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0	
2878397	10/12/06	22:38	Kawana Springs Rd & Petaluma Hill Rd	15'	West	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Changing Lanes	Driving Under Influence	1	0	
2928414	11/19/06	17:19	Kawana Springs Rd & Petaluma Hill Rd	25'	West	Head-On	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0	
2952178	12/13/06	12:24	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0	
2986082	12/30/06	10:51	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	North	Making Left Turn	Traffic Signals and Signs	0	0	
3056176	2/7/07	06:56	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Other Hazardous Movement	1	0	

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
3164495	4/10/07	09:56	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	3	0	
3335759	8/14/07	15:36	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	2	0	
3496521	11/13/07	21:19	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0	
3548871	12/29/07	09:28	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	3	0	
3526855	1/2/08	05:20	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0	
3611920	1/4/08	21:16	Kawana Springs Rd & Petaluma Hill Rd	0'	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Making Left Turn	Not Stated	1	0	
3783197	4/29/08	16:11	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	3	0	
3829224	7/3/08	17:02	Petaluma Hill Rd & Kawana Springs Rd	0'	In Int.	Broadside	Motor Vehicle on Other	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0	

Settings Used For Query

Parameter**Setting****Street Name****PET*****Cross Street****KA*****Starting Date****10/1/2005****Ending Date****9/30/2008****Distance from Intersection****≤ 150' for non rear-end collisions****≤ 150' for rear-end collisions**

Appendix C

Visitor and Volunteer Statistics

Taylor Mountain Public Visitation & Volunteer Stats, 2002-2008
OSD / LandPaths partnership

Date	Name / Theme	# Participants	Property visited	Approx Route	Waitlist?
9/21/2002	Full Moon Hike	35	Bath-Watt	Walk from Costco up to ridge and return	yes
5/18/2003	Market to Mountain	40	Bath-Watt	Walk from Costco up to ridge and continue	yes
6/1/2004	Full Moon Hike	50	Bath-Watt	Walk from Costco up to ridge and return	yes
4/14/2005	Evening Hike	45	Bath-Watt	Walk from Costco up to ridge and return	yes
7/21/2005	Full Moon Hike	50	Bath-Watt	Walk from Costco up to ridge and return	yes
1/28/2008	Preview hike	55	Russell	Walk from Costco to top of Russell and return via old ranch roads & grasslands	yes
3/25/2006	Art Hike	45	Russell	Walk from Costco to top of Russell and return via old ranch roads & grasslands	yes
4/14/2006	Sunset Hike	50	Russell	Walk from Costco to top of Russell and return via old ranch roads & grasslands	yes
5/11/2006	Full Moon Hike	55	Russell	Walk from Costco to top of Russell and return via old ranch roads & grasslands	yes
6/3/2006	Volunteer Stewardship project	15	Russell	Mow temporary pathways for visitor safety	no
7/4/2006	Fireworks viewing	140	Russell	Walk from temporary staging area at end of Kawana Springs Road to overlook above water tanks via mowed pathways	yes
8/2/2006	Evening Hike	60	Russell	Walk from temporary staging area at end of Kawana Springs Road to top of Russell via mowed pathways	yes
9/5/2006	Full Moon Hike	45	Russell	Walk from temporary staging area at end of Kawana Springs Road to top of Russell via mowed pathways	yes
9/28/2006	Volunteer Patrol Training	15	Russell	Walk from water tanks to top of Russell and return	yes
10/7/2006	Volunteer Patrol Training	30	Russell	Walk from water tanks to top of Russell and return	yes
10/22/2006	Stargazing at Taylor	42	Russell	Walk from water tanks and return	yes
11/17/2006	Stewardship	16	Russell	Signage, invasives removal, maintain pathway, etc.	no
11/8/2006	Volunteer Patrol Training	30	Russell	Walk from water tanks and return	yes
2/3/2007	Geology tour	38	Russell	Walk from water tanks and return	yes
3/10/2007	Volunteer Stewardship project	20	Russell	Signage, invasives removal, maintain pathway, etc.	no
3/24/2007	Spring hike	38	Russell	Walk from water tanks and return	yes
4/19/2007	Sunset hike	35	Russell	Walk from water tanks and return	yes
6/28/2007	Volunteer Stewardship project	5	Russell	Signage, invasives removal, maintain pathway, etc.	no
7/4/2007	Fireworks viewing	170	Russell	Walk from water tanks and return	yes
7/26/2007	Sunset hike	38	Russell	Walk from water tanks and return	yes
8/18/2007	Day-time hike	30	Russell	Walk from water tanks and return	no
8/15/2007	Day-time hike	28	Russell	Walk from water tanks and return	no
11/4/2007	Stargazing at Taylor	40	Russell	Walk from water tanks and return	yes
12/2/2007	Day-time hike	32	Russell	Walk from water tanks and return	yes
2/23/2008	Geology tour	22	Russell	Walk from water tanks and return	yes
3/30/2008	Day-time hike	32	Russell	Walk from water tanks and return	yes
4/5/2008	Volunteer Stewardship project	26	Russell	Signage, invasives removal, maintain pathway, etc.	no
4/24/2008	Grasslands tour	32	Russell	Walk from water tanks and return	yes
5/18/2008	Full Moon hike	30	Russell	Walk from water tanks and return	yes
5/18/2008	Spanish tour	20	Russell	Walk from water tanks and return	yes
7/5/2008	Fireworks viewing	190	Russell	Walk from water tanks and return	yes
7/10/2008	Volunteer Patrol Training	30	Russell	Walk from water tanks to top of Russell and return	yes
8/12/2008	Full Moon hike	35	Russell	Walk from water tanks and return	yes
9/20/2008	Day-time hike	30	Russell	Walk from water tanks and return	no
2002-05 (4 visits per year)	In Our Own Backyard Education Program Field Trips (2nd-4th graders)	60	Bath-Watt	Walk from end of Kawana Springs to Bath-Watt property; education activities and return	n/a
2006-07 (4 visits)	In Our Own Backyard Education Program Field Trips (2nd-4th graders)	60	Russell	Walk with classes from end of Kawana Terrace to hill just above water tanks; education activities and return	n/a
2007-08 (4 visits)	In Our Own Backyard Education Program Field Trips (2nd-4th graders)	60	Russell	Walk with classes from end of Kawana Terrace to hill just above water tanks; education activities and return	n/a
2008-09 (4 visits)	In Our Own Backyard Education Program Field Trips (2nd-4th graders)	60	Russell	Walk with classes from end of Kawana Terrace to hill just above water tanks; education activities and return	n/a
2006-2008	Volunteer Patrol Visits (approx. 100 / year over three years)	300	Russell	From water tanks on mowed path & return	n/a

Appendix D

Trip Generation Calculations

VISITOR USE for 2008

Shiloh Ranch 847 acres

	January		February		March		April		May		June	
	Total Visitors	Visitors per day										
Free Day Use	3,720	120	2,833	98	2,945	95	2,912	97	2,781	90	4,077	136
Paid Day Use	3,627	117	3,252	112	3,348	108	3,393	113	1,989	64	1,854	62
Total	7,347	237	6,085	210	6,293	203	6,305	210	4,770	154	5,931	198

	July		August		September		October		November		December	
	Total Visitors	Visitors per day										
Free Day Use	3,689	119	1,574	51	2,370	79	1,849	60	1,920	64	2,015	65
Paid Day Use	1,968	63	1,533	49	1,173	39	1,281	41	1,260	42	1,515	49
Total	5,657	182	3,107	100	3,543	118	3,130	101	3,180	106	3,530	114

2008 Annual Total			
	Total Visitors	Visitors per day	Visitors per day per acre
Free Day Use	32,685	89	0.11
Paid Day Use	26,193	72	0.08
Total	58,878	161	0.19

Note: 2008 was a Leap Year, therefore calculations were based on 29 days in February and 366 days in the year.
 Source: County of Sonoma Regional Parks Department, 2009

Trip Generation - Calculation Summary

Assumption	Calculation	Units
Annual Average Rate from Shiloh Ranch	0.19	Visitors per Acre per Day
Taylor Mountain - 823 acres	156	Average Visitors per Day
2.5 Visitors per Vehicle	62.5	Average Vehicles per Day
2 Trips (In and Out) per Vehicle	125	Average Trips per Day
Peak Month Generates 150% of Annual Average	188	Peak Trips per Day
Peak Hour Generates 25% of Daily Trips	47	Peak Trips per Hour