

NEGATIVE DECLARATION

Marin County
Environmental Coordination and Review

Pursuant to Section 21000 et. seq. of the Public Resources Code and Marin County Environmental Impact Review Guidelines and Procedures, a Negative Declaration is hereby granted for the following project.

- 1. **Project Name:** Stafford Lake Bike Park Master Plan
- 2. **Location and Description:** The project site is located in unincorporated Marin County, west of the City of Novato, within Stafford Lake County Park, at 3549 Novato Boulevard, Assessors Parcel Number (APN) 125-090-19

The proposed 17-acre Stafford Lake Bike Park would be located within the Stafford Lake County Park, which is in north Marin County approximately 3 miles west of Novato and Hwy 101. Marin County Parks is developing a master plan for a bike park within Stafford Lake Regional Park that describes the facilities and configuration of the bike park. The proposed bike park master plan proposes a system of trails, riding zones, skills development stations, and practice areas that provide a full range of riding opportunities from beginner-level riders to professionals, including:

- A loop trail around the bike park that accesses all of the trails and riding areas;
- Kids, beginner, intermediate, and advanced riding zones designed to provide opportunities to develop riding skills and includes pump tracks, trails, skills stations, and jumps;
- Other trails and facilities that provide a variety of riding opportunities and challenges; and
- Other facilities including bridges over an existing stream, fencing, entrances, parking, benches, picnic tables, and shade structures.

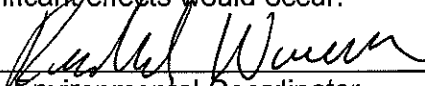
The master plan also includes measures to control site drainage and sedimentation and includes soil amenities, bioswales, and other measures to control sedimentation. The goal of the sediment control is to capture all sedimentation onsite. Finally, the bike park master addresses other important issues including safety, signs, enforcement, construction, operations, maintenance, park closures for weather, and special events. The project is located in unincorporated Marin County within Stafford Lake County Park, at 3549 Novato Boulevard, Assessors Parcel Number (APN) 125-090-19.

3. **Project Sponsor:** Marin County Parks

4. **Finding:**

Based on the attached Initial Study and without a public hearing, it is my judgment that:

- The project will not have a significant effect on the environment.
- The significant effects of the project noted in the Initial Study attached have been mitigated by modifications to the project so that the potential adverse effects are reduced to a point where no significant effects would occur.



Environmental Coordinator

Date: 9/21/11

Based on the attached Initial Study and the testimony received at a duly noticed public hearing, a Negative Declaration is granted.

President, Board of Supervisors Date: _____

Appeal: Subsequent to an appeal of the granting of a Negative Declaration and based on the testimony received at a duly noticed public hearing on the appeal, the record of the public hearing on the Negative Declaration and the Initial Study, a Negative Declaration is granted.

Chairperson, Planning Commission Date: _____

President, Board of Supervisors Date: _____

5. Mitigation Measures:

- No potential adverse impacts were identified; therefore, no mitigation measures are required.
- Please refer to mitigation measures in the attached Initial Study.
- The potential adverse impacts have been found to be mitigable as noted under the following factors in the Initial Study attached.

(List Initial Study Sections and Mitigation/Monitoring)

All of the mitigation measures for the above effects have been incorporated into the project and are embodied in conditions of approval recommended by the Marin County Community Development Agency - Planning Division.

Other conditions of approval in support of these measures may also be advanced.

6. Preparation:

This Negative Declaration was prepared by James Raives, Senior Open Space Planner, the Marin County Parks. Copies may be obtained at the address listed below.

Marin County Parks
3501 Civic Center Drive, #260
San Rafael, CA 94903
(415) 499-6269

Monday - Friday, 8:30 a.m. to 4:30 p.m.

**MARIN COUNTY COMMUNITY DEVELOPMENT AGENCY
PLANNING DIVISION**

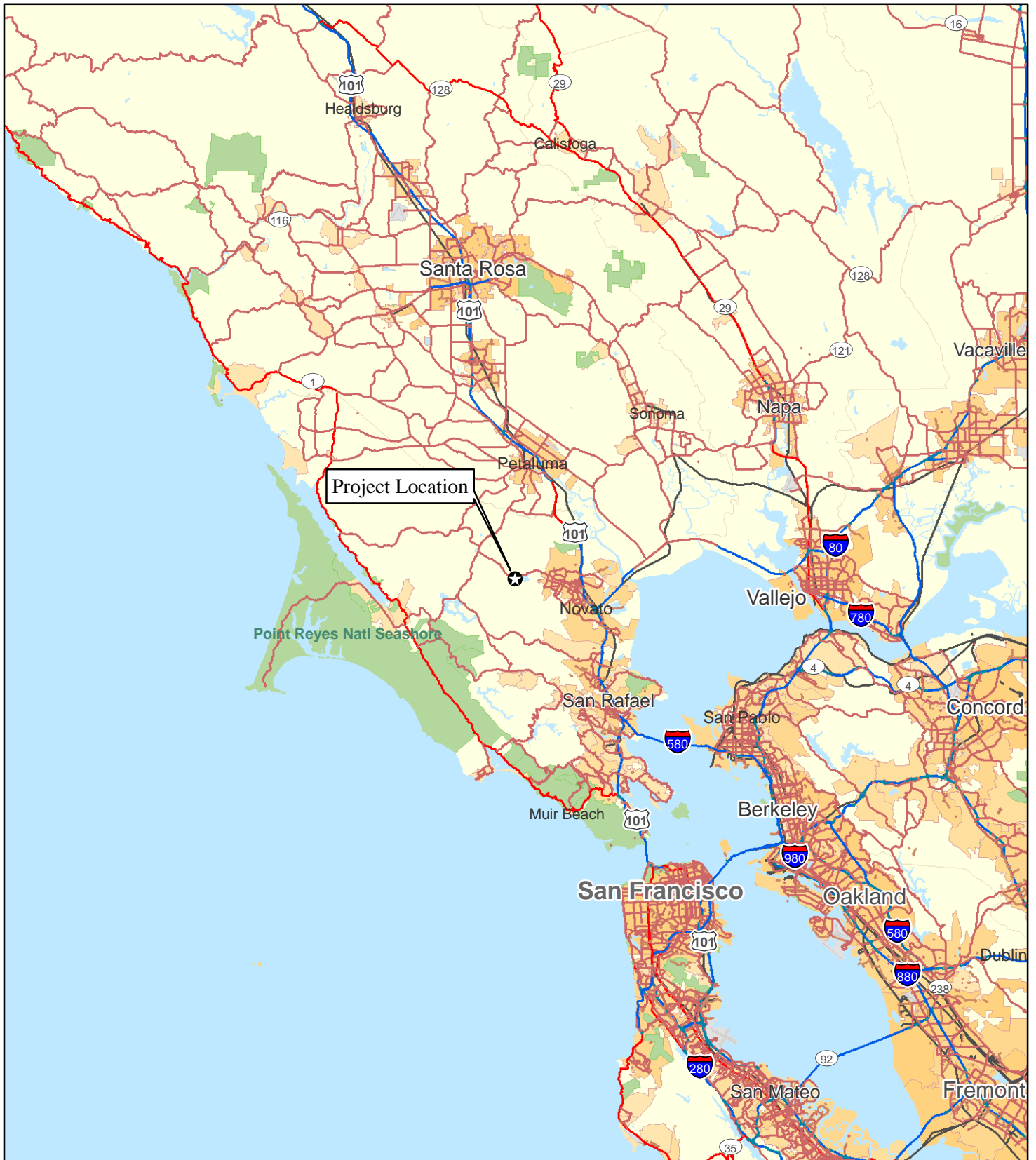
**INITIAL STUDY
STAFFORD LAKE BIKE PARK**

I. GENERAL INFORMATION

- A. Project Sponsor's Name and Address:** Marin County Parks
3501 Civic Center Dr., Room 260
San Rafael, CA 94903
- B. Lead Agency Name and Address:** Marin County Parks
3501 Civic Center Dr., Room 260
San Rafael, CA 94903
- C. Contact Person and Phone Number:** James Raives, Senior Open Space Planner
Marin County Parks
(415) 499-3745

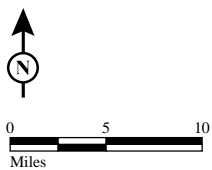
II. PROJECT INFORMATION

- A. Project Title:** Stafford Lake Bike Park
- B. Additional Agencies that May Require Permits:**
- U.S. Army Corps of Engineers (Section 404 Permit)
Regional Water Quality Control Board (Section 401 Consultation)
California Department of Fish and Game (Streambed Alteration Agreement)
State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities
- C. Project Location:** Unincorporated Marin County, as shown in Figures 1 and 2.
APN: 125-090-19
- D. General Plan Designations:** *Countywide Plan*
Public Facility (PF) - Open Space (OS)
- E. Zoning:** *Marin County Zoning*
Agriculture and Conservation, Limited Agriculture (A60, A2-B4)
- F. Description of Project:** The proposed project is described below:



LSA

FIGURE 1



*Stafford Lake Bike Park
Novato, Marin County, California*
Project Location and Vicinity

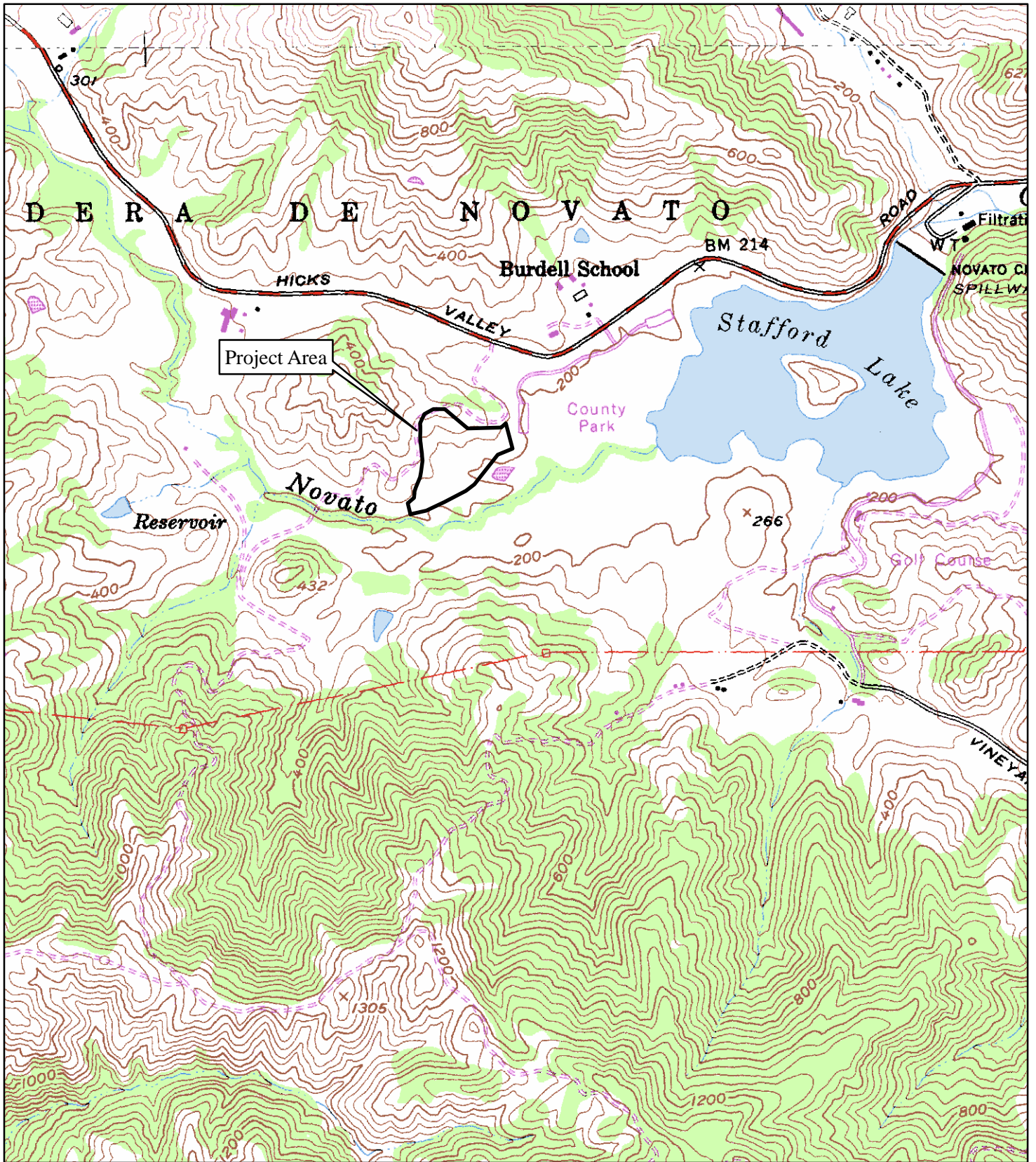


FIGURE 2

LSA

 Project Area



0 1000 2000
FEET

SOURCE: USGS San Geronimo Calif. Topographic Quad Map 1971

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Stafford Lake Bike Park
Novato, Marin County, California

Project Area

Overview and Background

Site Description. The proposed 17-acre Stafford Lake Bike Park would be centrally located within the larger Stafford Lake County Park. Stafford Lake County Park is situated in the northern area of Marin County approximately 3 miles west of Novato and Hwy 101. The County Park is located at 3549 Novato Blvd (see Figures 1 and 2).

The 139-acre regional park provides recreation opportunities to the community, including opportunities for hiking, fishing and group picnicking for up to 500 people. The park also has a children's play structure, ball fields, volleyball and horseshoe courts and a disc golf course. The park is used for a variety of large-scale events, music concerts and festivals, drawing as many as 5,000 people and 1,200 cars. No current master plan guides facility development at Stafford Lake County Park.

Road access to the park is from Novato Blvd. Parking fees are \$5.00 per vehicle in winter and on summer weekdays, \$10.00 per vehicle on summer weekends (Friday, Saturday and Sunday). No on-street parking is available on Novato Blvd. Separated bike paths or bike lanes are present along the route to the park from downtown Novato. In addition to the vehicle entrance, a pedestrian/bicycle access is available via the bike path in the east end of the park. A \$2.00 fee is charged for walk-in/bike-in access to the park year round.

Park hours are 7:00 a.m. to 8:00 p.m. in summer, 7:00 a.m. to 7:00 p.m. in fall and spring and 8:00 a.m. to 5:00 p.m. in winter. The park is closed at night and the vehicle entrance is locked. The proposed bike park would have the same operating hours as Stafford Lake County Park; however, it would be closed when wet conditions warrant. Vehicle arrival to and departure from the bike park would be randomly distributed during operating hours, except during permitted special events. Marin County Parks would coordinate special events to ensure the capacity of the park and parking areas would not be exceeded.

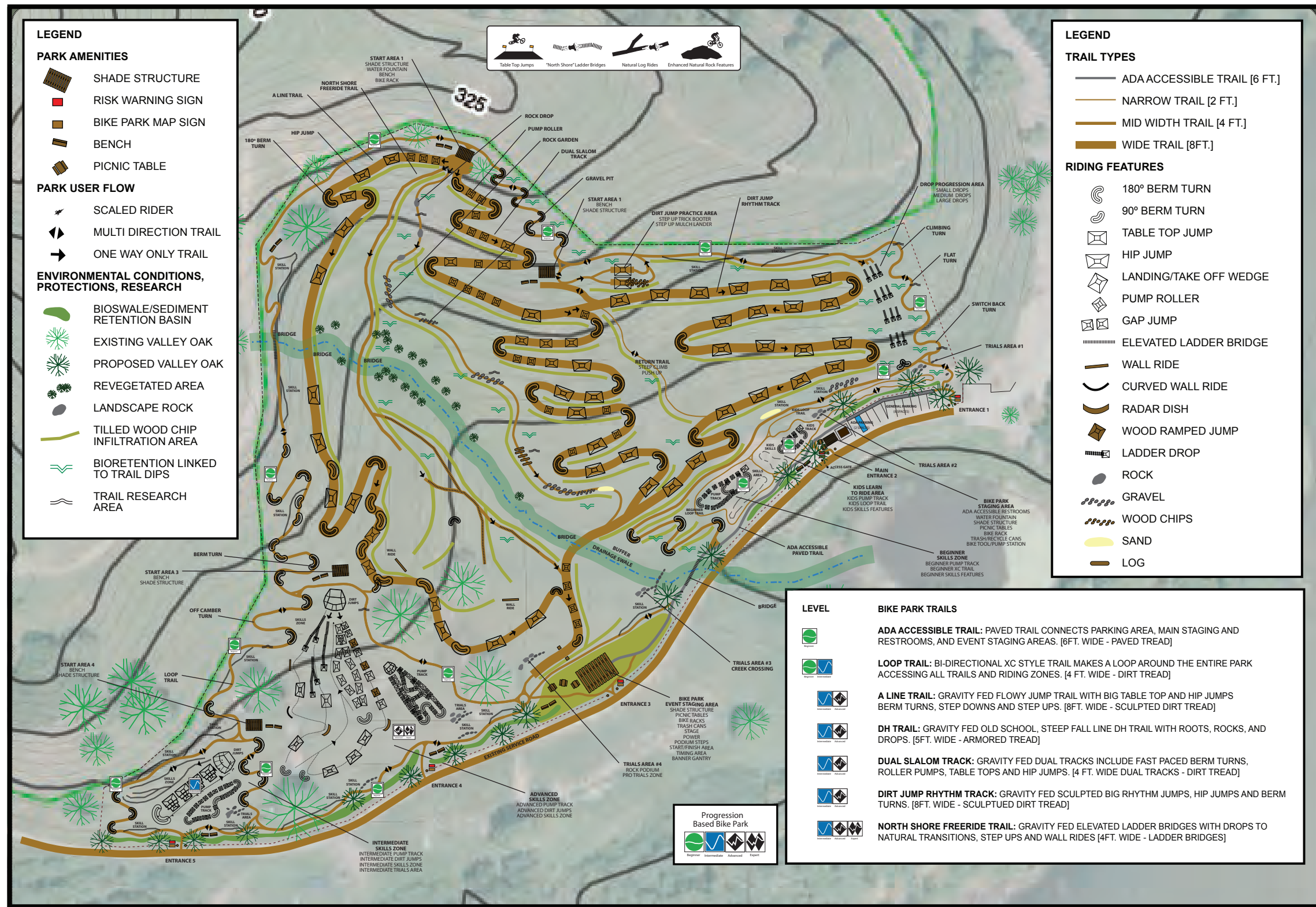
History of Use. Prior to ownership by the County of Marin, the project site was part of a larger dairy ranch. The project site does not currently include any developed recreational facilities. Approximately 50 percent of the site has been used by local ranchers, per agreement with the County, for seeding and harvesting of hay, including disking of the site. During the dry months, most of the site is mowed for fuel management.

A portion of the project site has been home to the Renaissance Pleasure Faire and the NorCal annual bicycling event. The Renaissance Faire occurred in 2004 and 2005 over a period of several summer weekends, attracting thousands of visitors each weekend. The annual NorCal event attracts less than 100 people.

The project area also includes a dump and staging area for park maintenance operations, which includes a vehicle pullout area, waste storage and a water spigot connected to a 2-inch water line. As part of bike park development, these facilities would be relocated to another area of the park.

Proposed Trails and Features

The proposed bike park would be designed to include a system of trails, riding zones, skills development stations, and practice areas that together would provide a full range of riding opportunities from beginner-level riders and kids all the way up to the advanced, expert and professional level riders. Definitions to further clarify these proposed trails and features are provided in Attachment 2. The proposed bike park master plan is shown in Figure 3.



LSA



BASE SOURCE: Marin County Parks and Hilride (4/25/11)

P:\COM1101\g\Figure3_Bike Park Master Plan.cdr (07/21/2011)

FIGURE 3

Stafford Lake Bike Park
Novato, Marin County, California
Bike Park Master Plan

The bike park would be laid out in a logical manner such that bike park users could enter the park and access the loop trail that would allow them to navigate through the bike park, preview each riding area, and determine where to begin riding.

Loop Trail. A loop trail around the perimeter of the entire bike park would provide access to all of the different trails, riding areas and zones. It would be constructed as a bench cut contour trail with an approximate width of four feet, in order to provide ample room for riders to pass, and would be constructed of dirt with a primarily smooth tread. The trail would include a wide variety of turns and jumps, and would have an average grade of five to seven percent with a maximum grade of approximately 15 percent. The trail would be signed with way-finding information and would be bi-directional. The loop trail would have approximately 20 skills stations along the route, which would provide riders with optional challenge opportunities, including sand pits, mulch pits, elevated trail sections, log rides, drops, rock gardens, and log overs. Each skill station would include cleared fall zones free of obstructions on either side of each skill station to reduce any potential risks, and be designed with a lead-in off the main loop trail and a lead-out back on to the main loop trail.

Riding Zones. The bike park would include several zones including kids learn-to-ride, beginner, intermediate and advanced riding zones. Each zone would be designed specifically to provide opportunities to practice and develop bicycle-riding skills and would include features such as pump tracks, loop trails, skills stations, dirt jumps and more. Each zone would be designed to accommodate coaching and instruction with seating and observation areas.

- *Kids Learn-to-Ride Zone.* The kid's learn-to-ride zone would be located closest to the entrance of the bike park, so that riders entering the bike park would see this area first and have the opportunity to start their experience with the easiest type of riding. The kid's learn-to-ride zone would include a pump track, moderate-bermed turns, five skills stations, and a four-foot wide kid's loop trail.
- *Beginner Zone.* The beginner zone, located next to the kid's learn-to-ride zone, would provide the next step of progression for bike park riders and would include a pump track, skills stations, and beginner loop trail.
- *Intermediate Zone.* The intermediate zone would provide riders with a range of opportunities including a pump track, skills stations and a dirt jump area.
- *Advanced Zone.* The advanced zone would provide riders with the most technically demanding riding features and would include: an advanced pump track with pumps, rollers and berm turns; advanced dirt jumps that include wood ramp takeoffs with dirt landings linked to curved wall rides; and advanced skills stations.

Other Trails and Facilities. In addition to the riding zones and areas, the bike park would also have a network of gravity based downhill trending trails. The area would be designed to start at the highest point in the bike park, taking advantage of elevation, and would descend to the lowest point in the bike park. A rest area and shade structure at the starting area would be included to support riders. Trails would be designed in such a fashion to balance cuts and fills within the project site, except in limited circumstances, where imported clay soil would be necessary to ensure compaction. These other trails and facilities are described in further detail below.

- *"A-Line Style" Flow Trail (Freeride FR).* The "A-Line Style" Flow Trail would be designed as a jump trail with large tabletop jumps, hip jumps and berm turns. This trail would be constructed as a natural surface, smooth dirt trail that would be passable by intermediate to advanced level riders. The Flow Trail would be designed as an 8-foot wide trail with an average grade of 7 to 9 percent and a maximum grade of 15 percent.

- *“North Shore Style” Freeride Trail (Freeride FR).* The Freeride Trail would be constructed with technical wooden elevated features including drops and jumps. The main design aspect of this trail is that elevated features would provide opportunities for vertical drops and would be designed to take advantage of the natural landscape and hill slope to provide for landing transitions. The trail would be designed as four feet in width, with maximum grades approaching 40 percent (in transition areas) and an average grade of 10 percent.
- *“DH Style” Downhill Trail (Downhill DH).* The downhill trail would be designed to provide riders with a steep, technical trail experience. The trail would be constructed primarily with dirt and would include several technical sections with challenges such as large boulders and rocks, sand pits, gravel pits, rock gardens, and drops. This trail would be the steepest trail in the bike park and would be heavily armored and stabilized to prevent erosion and sedimentation. The maximum grade on this trail would be around 40 percent while the average grade would be around 20 percent.
- *Dual Slalom Track (Dual Slalom DS).* The dual slalom track would be designed as two, parallel, four-foot wide tracks to provide riders with the opportunity to race side-by-side against another rider but on separate tracks. The dual slalom track would include berm turns, rollers, roller jumps, tabletop and hip jumps, and rhythm sections. The average grade of this trail would be approximately seven percent with a maximum grade of approximately 15 percent.
- *Dirt Jump Rhythm Track (Dirt Jump DJ).* The dirt jump rhythm track would be designed to provide riders with the opportunity to develop rhythm-jumping skills, which means carrying the momentum from one jump into the next closely spaced jump over a series of several jumps. The track would include several large tabletop jumps and berm turns. The dirt jump rhythm section is designed as an 8-foot wide trail with an average grade of approximately 10 percent.
- *Connector Trail.* The gravity trails would be designed to converge on the connector trail as they approach the end of the run. The connector trail would provide clear sight lines, passing lanes, and safe merging for users of the gravity trails. The connector trail would be eight feet wide with an average grade of seven percent.
- *Return Trail.* The return trail would provide the quickest, most direct route from the bottom of the Dirt Jump Rhythm Track to the start of that track. It would be a three-foot wide trail that most riders would walk up (rather than ride) with their bikes. The average grade of this trail would be approximately 20 percent.
- *Trials Zones.* Five trials zones made of different configurations of large boulders would spread out in the lower elevations of the bike park. Trial riding is a discipline of mountain biking that focuses on balance, controlled braking and bike handling skills over obstacles, both natural and man-made.
- *Bridges.* The project would include the construction of four bridges over the drainage channel. The wooden bridges would extend across the banks of the channel without any impacts to the bed or bank of the channel. The County will design the bridges to accommodate equipment used to maintain the bike park.

Additional Project Elements

Amenities. The proposed bike park would include the following amenities for bike park users and visitors:

- *Fencing.* A four-foot high split rail style rustic fence would bound the lower portion of the bike park, paralleling the gravel access road. Where cattle fencing already exists, it would remain or be replaced. Split rail fencing would be installed at either end of the bike park, from the road to the existing cattle fencing, thereby enclosing the bike park.
- *Entrances.* Entrances would be designed to allow riders to easily enter and exit the bike park and to allow the bike park to be closed seasonally and to limit entrance, if necessary, during special events. Each entrance would be four feet wide. Four entrances would be located off the main access road and would provide access to each area.

- *Parking.* The existing 100 parking spaces located just outside of the bike park entrance would be used by all park users, including patrons of the bike park. Additional parking is also available elsewhere in the Stafford Lake County Park. Eight new parking spaces and two accessible parking spaces would be added as part of the proposed project. These parking spaces would be located just inside the bike park entrance.
- *Benches and Picnic Tables.* Benches and picnic tables would be strategically distributed at several locations in the proposed bike park, including the staging area adjacent to the kid's learn-to-ride zone and near the central staging area.
- *Shade Structures.* Shade structures would be strategically distributed at up to six locations in the proposed bike park, including the main entrance, the central staging area, and near the start hills of some of the bike park zones and areas.
- *Utilities.* The County will install potable-water fountains in the bike park and may install underground power to the central staging and the gravity trail start areas. The bike park would not have lighting. The County will also install one accessible portable restroom.
- *Accessibility.* Parking, viewing and picnic areas, and the portable restroom would comply with state and federal accessibility requirements. An accessible path-of-travel would connect parking to viewing and picnic areas.

Environmental Protection Measures. Trails and riding features will avoid the existing large oak trees and their drip lines, and the drainage, and associated vegetation, that bisects the site. After construction, the County will re-vegetate to reduce soil erosion.

Site Drainage and Sedimentation Control. The bike park would be designed to minimize erosion and sedimentation as outlined below. Erosion and sedimentation would be addressed at the upper reaches of the site and bioswales would be created at lower levels of the bike park to act as sedimentation basins. The goal of the site drainage and sediment control is to capture all sedimentation onsite, without any impact to water quality off-site. The following measures would ensure the proposed project meets these goals.

- *Trail Alignment Protection Measures.* Wood chip infiltration areas would be installed along all trail alignments in order to increase water infiltration and decrease sedimentation. The areas would be constructed by incorporating wood chips into the soil to a depth of 12 inches and a width of four to eight feet on either side of the trail alignments and adding wood chip mulch on the surface. Machine tilling would entail loosening the soil using the bucket of a backhoe or excavator and mixing the wood chips into the soil, concentrating chips toward the top of the soil profile and leaving some chips on the soil surface as mulch. Mulch thickness would be approximately one inch with no more than 10 percent of the mineral soil surface exposed. Following tilling, the areas would be seeded and lightly raked in order to maximize soil-seed contact.
- *Low Grade Area Protection Measures.* At the lower elevations of the project site, bioswales and bioberms would be constructed with wood shred infiltration areas. Tilling and mulching may be done concurrently if 90 percent of the mineral soil is covered.
- *Bio-Retention Protection Measures.* Wood chips would be machine tilled to 18 inches deep. Mulch thickness would be approximately one inch with no more than five percent of the mineral soil surface exposed. Following tilling, the areas would be seeded and lightly raked in order to maximize soil-seed contact.
- *Bioswale Areas.* At the lower elevations, the County will install bioswales, which would be 12-18 inches deep. These swales would include a meandering water-flow path to allow water to pond during low flows. A maintenance plan would ensure that the bioswales would be maintained. Maintenance activities would be conducted when sediment limits plant growth or reduces the infiltration capacity of the bioswale by more than 50 percent. Bioswales would be constructed with a maintainable forebay

that would settle out coarse and medium-sized soil particles. These forebays would be constructed of concrete or other drivable surface in order to facilitate cost effective maintenance.

- *Bioberm.* Bioberms are biologically active, well-vegetated landscape features that maintain a natural aesthetic appropriate to the site. Bioberms would undulate and vary in mass in order to achieve that aesthetic. This feature is intended as a final water capture feature that would minimize or prevent water leaving the site and would allow the water to be treated a final time in the case where water does flow from the site. The bioberm would have associated outfall and outflow elements to ensure that outflow water would not be able to erode the flow path between the bioberm and Stafford Lake. The bioberm would be located on the uphill side of the dirt access road with a maximum height of 12-18 inches.
- *Drainage Channel Protection Measures.* No bike park features would intrude into the drainage channel that bisects the site. Trail bridges would have rails and abutments on either side of the channel to ensure protection of the channel. Downslope from the gravel roadway, where channel flow exits a culvert beneath the road, a small amount of rock would be placed in an area 3-feet wide by 5-feet long to reduce the velocity of water exiting the site.
- *Maintenance of Bio-Protection Areas.* Maintenance of biologically-active protection areas would be performed with both hand tools or with a mini excavator. Maintenance would include loosening tilled wood chips/shreds periodically to increase infiltration and adding additional wood chips/shreds, if necessary. If these areas continually fill with sediment, additional measures may need to be taken.

Risk Management

Important elements of the risk management plan would include a comprehensive signage program and a program for the enforcement of bike park rules and regulations including helmet usage, codes of conduct and rider etiquette.

Safety Controls. The design of the bike park takes into consideration risk management principals and guidelines to create a safe and fun riding experience for all levels of riders. Such principals include: 1) turns prior to intersections to slow down users; 2) fall zones (bailout lines) on each side of bike park features to provide an escape, with a clear landing zone, off the feature; 3) one-way trails; 4) increased sight lines to provide opportunities to avoid accidents; and 5) progressively more challenging features into each zone to provide users opportunities to improve their skills.

Signage. The comprehensive signage plan for the bike park would include entrance, way-finding, difficulty rating, interpretive, and sponsorship signs at appropriate locations throughout the park.

Enforcement of Regulations. Park rangers would regularly patrol the bike park to educate users and enforce rules and regulations of the bike park, including helmet usage, codes of conduct and rider etiquette. Park rangers would give warnings and issue tickets, as necessary.

Construction

Construction would take place in spring, summer and/or early fall (up to October 15) and would take approximately 4-months to complete. The existing dirt access road adjacent to the proposed site would provide access for construction equipment, as well as emergency vehicles.

Grading Operations. Mechanical equipment such as backhoes, mini excavators, dozers, skid steer, skid loaders, and roller compactors would be used during initial grading. Hand tools such as shovels, McLeod's and landscape rakes would be used for the fine-tuning and finish shaping of the trails and riding features. Wooden elevated trails and features would be built above ground level and supported with posts embedded into the ground approximately 2 to 4 feet deep.

Soils Import Specifications and Sourcing. The County would import additional soil for the lower elevation riding trails and zones and to ensure the riding surfaces are well compacted and properly stabilized. Cuts and fills would be balanced on site, except where limited amounts of imported clay soil are required to ensure trail compaction. Import soil specification would call for clean soil that is free of debris, clods and rock generally consisting of 80 percent clay and 20 percent sand. All staging and stockpiling of materials would occur within the project site.

Site Preparation. Prior to construction, mowing and grading would be conducted to prepare areas proposed for development of park features (e.g., trails). Existing vegetation along the drainage and the existing valley oak trees would *not* be removed. The trees would be protected with temporary fencing.

The existing dump area, portable restroom, and bird boxes would be removed from the project area and relocated within Stafford Lake County Park.

Maintenance

The Maintenance Plan would include a description of the activities that should be regularly performed. Maintenance tasks include: 1) clearing, raking, compacting, shaping and otherwise maintaining the dirt features including the trails, jumps lines, and pump tracks; 2) inspecting signs; 3) clearing fall zones; 4) repairing structures as needed, and 5) maintaining site drainage and sediment control features.

Frequency. Daily maintenance would consist of trash pick-up and general bike park inspections. Weekly maintenance would consist of inspecting signage for damage; clearing hazardous debris and vegetation throughout the bike park, on riding surfaces and within fall zones of riding features (i.e. large holes, loose rocks, trash); stabilizing all wooden trail features to ensure structural integrity; and compacting and shaping dirt features (if needed) to reduce soil erosion and dust . Monthly maintenance would include inspecting and securing all hardware on the elevated wood trails and features; inspecting and securing the boundary fence; inspecting and improving site drainage where needed; and maintaining dirt features, where needed, to repair brake bumps, holes, and erosion. Annual inspection and maintenance of the site drainage and sedimentation control features would also be conducted.

Maintenance Staff. The County would be responsible for ensuring that the bike park is maintained to its design plan and maintenance protocol. The County would work with volunteers and/or a contractor to assist in the construction and ongoing maintenance of the bike park.

Fire and Safety. Biannual mowing of grass within the project site would reduce fire hazards. Smoking would not be allowed in the bike park. The Risk Management Plan would call for the generation of a specific address for the bike park, which the fire department could respond to in case of emergency. This address would be posted on bike park signage. During construction and maintenance efforts, the address, emergency phone numbers and a listing of the nearest hospitals would be available to the contractor and volunteers.

Operations

Park hours are 7:00 a.m. to 8:00 p.m. in summer, 7:00 a.m. to 7:00 p.m. in fall and spring and 8:00 a.m. to 5:00 p.m. in winter, except during wet season closures. Bike park usage would occur primarily on weekends and holidays, with peak use in the morning and late afternoon hours during warm season months. On weekdays, peak use would occur after school.

Winter Season*: November 7th-March 12th (Park Hours 8 a.m.-5 p.m.)

Weekday Use:

Peak Hours: 3 p.m.-5 p.m.

Average number of users in the bike park at any given time: 0-30

Total number of users in the bike park over the course of the day: 30-100

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Weekend Use:

Peak Hours: 11 a.m.-5 p.m.

Average number of users in the bike park at any given time: 0-50

Total number of users in the bike park over the course of the day: 50-150

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Spring Season*: March 13th-May27th (Park Hours 7 a.m.-7 p.m.)

Weekday Use:

Peak Hours: 3 p.m.-6 p.m.

Average number of users in the bike park at any given time: 0-30

Total number of users in the bike park over the course of the day: 50-100

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Weekend Use:

Peak Hours: 9 a.m.-11 a.m. and 3 p.m.-7 p.m.

Average number of users in the bike park at any given time: 0-50

Total number of users in the bike park over the course of the day: 50-200

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Summer Season: May 28th-September 5th (Park Hours 7 a.m.-8 p.m.)

Weekday Use:

Peak Hours: 4 p.m.-7 p.m.

Average number of users in the bike park at any given time: 0-30

Total number of users in the bike park over the course of the day: 50-100

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Weekend Use:

Peak Hours: 9 a.m.-11 a.m. and 4 p.m.-7 p.m.

Average number of users in the bike park at any given time: 0-50

Total number of users in the bike park over the course of the day: 50-200

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Fall Season*: September 6th- November 6th (Park Hours: 7 a.m.-7 p.m.)

Weekday Use:

Peak Hours: 3 p.m.-6 p.m.

Average number of users in the bike park at any given time: 0-30

Total number of users in the bike park over the course of the day: 50-100

Mode share for bike park users: 80 percent will carpool in cars to site /20 percent will ride their bike.

Weekend Use:

Peak Hours: 9 a.m.-11 a.m. and 3 p.m.-6 p.m.

Average number of users in the bike park at any given time: 0-50

Total number of users in the bike park over the course of the day: 50-200

Mode share for bike park users: 80 percent will carpool in cars to site / 20 percent will ride their bike.

*The bike park would experience closures in wet weather periods as described below.

Special Events. The bike park would be used for special bicycling-related public and private events. The entire bike park or areas of the bike park would be available for special events including coaching and instruction, races, competitions, product demos, photo shoots, and filming. Special events would be coordinated through the special event permitting process administered by the County.

Events would range from very small groups (1-10 people) for personal coaching and instruction, to mid-sized clinics and camps (10-30 people), to large-scale events and competitions that could draw as many as 1,000 participants and spectators. Smaller, special events such as coaching, clinics and camps are estimated to be 90 percent participants /10 percent spectators, while larger events might be closer to 70 percent participants /30 percent spectators. Small and mid-sized events would be more common than large events and would likely occur 2-6 times per month in the dry months. These events would most likely occur on weekend mornings from 9 a.m.-12 p.m. or weekday afternoons from 4 p.m.- 6 p.m. Large-scale events, which may occur one to two times per year, would most likely last all day from 10 a.m.- 4 p.m. on a weekend day, with peak use from 11 a.m. – 3 p.m.

Bike Park Closures. The bike park is designed to allow the County to close the bike park during periods of high rain or other unsafe conditions. Seasonal wet weather closures would help to reduce soils erosion exacerbated by usage during saturated soil conditions. The County will close the bike park when the soil becomes wet and unstable. A call-in phone number would be available to bike park users to find out if the bike park is closed.

G. Environmental Setting:

Site Location and Surrounding Land Uses

As described above, the proposed 17-acre Stafford Lake Bike Park would be located within the larger Stafford Lake County Park. The proposed bike park is bounded on the east side by an existing parking lot of approximately 100 spaces and on the south side by an existing dirt access road. These spaces, along with 10 additional parking spaces included within the proposed project, would be available to all park users, including patrons of the bike park. Vehicle access to the facility would occur along a paved road. The Stafford Lake County Park boundary forms the north side boundary of the proposed bike park, which is fenced with a four-foot barbed wire fence. Private property adjacent to the proposed project is actively used for cattle grazing.

Existing Site Conditions

Predominately open, nonnative grassland, with almost no exposed rock or rock outcroppings, the proposed bike park site has seven mature Valley Oak trees distributed across the landscape. The terrain slopes gently from the northwest to the southeast with the lower elevations ranging from five percent to ten percent. Steeper slopes in the higher elevations reach grades of up to 40 percent. A difference of approximately 100 feet exists between the site's upper and lower elevations. The elevation of the project site ranges from 200 feet, at its lowest point, to 300-feet at its highest point. A minor unnamed ephemeral drainage, planted with vegetation and trees, bisects the site.

Stafford Lake, adjacent to the County Park, is owned and operated by the North Marin Water District. The reservoir has a capacity of 4,450 acre-feet and provides about 20 percent of the potable water supply for Novato residents.

Geology and Soils

Geology. The site is located within the Coast Range Geomorphic Province of California. The regional bedrock geology consists of complexly folded, faulted, sheared, and altered sedimentary, igneous and metamorphic rock of the Franciscan Complex. Bedrock is characterized by a diverse assemblage of greenstone, sandstone, shale, chert, and melange, with lesser amounts of conglomerate, calc-silicate

rock, schist, and other metamorphic rocks. Regional geologic mapping indicates the project site is underlain by melange and metamorphic rocks of the Franciscan Complex. Melange is defined as a tectonic mixture of resistant rock types, including chert, sandstone, greenstone, serpentinite, and exotic metamorphic rocks, embedded in a sheared, shale matrix. Metamorphic rocks of the Franciscan Complex range from low-grade, meta-sandstone and shale to high-grade exotic rocks such as phyllite, blueschist, and eclogite.

Evidence of previous landsliding is visible in the north-central portion of the project site, as shown on Figure 4. The prominent valley oak in this area marks the toe of a large landslide that originated off-site to the northwest, from the peak of the low ridgeline, where a prominent depression marks the origin of the slide. No evidence of active landsliding or recent slide activity was observed. However, steep slopes within the site coupled with slightly expansive surface soils may be prone to soil "creep." Soil creep is a process whereby seasonal wetting and drying of plastic silts and clays causes downslope movement of surface soils by gravity.

An erosion gully originates at the downslope edge of the adjacent property's access road as shown in Figure 4. The gully is located at the topographic low point of the road and is just southwest of the toe of the landslide. The gully has likely been incised by surface water collected from the hillside northwest of the project site. The upper portion of the channel has been filled with broken concrete rubble, and exhibits a maximum incision of approximately four feet. The lower portions of the channel are incised an average of one foot.

In terms of seismicity, the site is located in a seismically active region of northern California, and is approximately 9 miles from the San Andreas Fault, 10 miles from the Rodgers Creek fault, and 12 miles from the Hayward fault. The project site is not within the delineated boundaries of a major fault zone as identified by the State of California Earthquake Fault zone for active faults.

Soils. According to the Natural Resources Conservation Service Marin County California Soil Data, two soil complexes are present in the project site depending on slope steepness. The shallow two to five percent slopes at the lower portions of the project site consist of the Blucher-Cole Complex. This complex is predominantly found in basin floors and alluvial fans and is somewhat poorly drained. The Blucher soil profile is a silt loam in the top 23 inches and is a clay loam from 23 to 60 inches. The Cole soil profile is made up of clay loam in the top 5 inches, silty clay loam from 5 to 14 inches below surface, silty clay from 14 to 60 inches and it reaches a restrictive feature below 80 inches deep.

Within the steeper slopes of the site the Los Osos-Bonnydoon Complex exists, which is predominantly (60%) composed of the Los Osos soil type, is found on hills and is well drained. The Los Osos soil type is a loam within the top 15 inches, clay from 15 to 30 inches deep where it hits weathered bedrock. The Bonnydoon soil type is gravelly loam in the top 11 inches and weathered bedrock from 11 to 15 inches.

According to the Marin Soil Survey (USDA 1985), runoff from the Blucher-Cole (2-5% slopes) is slow and hazard of erosion is slight. Runoff and erosion hazard from the Los Osos-Bonnydoon soils (5-15% slopes) is moderate. Runoff is rapid and erosion hazard is high from the Los Osos-Bonnydoon soils on greater than 15% slopes. *Refer to Section IV.3 Geophysical of this Initial Study for further discussion of geology, soils, and seismicity.*

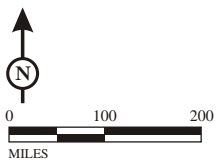
Biological Resources

The biological resources of the proposed bike park consist of non-native grassland, valley oak trees, an ephemeral watercourse, and possible wetlands. Special-status plant species have not been detected, although additional surveys would be conducted prior to start of construction. The site consists mostly of non-native grassland and is dominated by non-native species.



LSA

FIGURE 4



SOURCE: Miller Pacific (06/08/11)

Stafford Lake Bike Park
Novato, Marin County, California
Geologic Conditions

The oak trees range in size from saplings 1 – 2 inches in diameter to over 2 feet in diameter. They occur sparsely on the site. The watercourse is incised, with a channel width of 1 – 2 feet, and flows only during the rainy season. Small potential wetland areas approximately 5 feet wide and 10 feet long occur along the watercourse, in the central portion of the site, where the gradient flattens. Another potential wetland occurs in a graded area below a seep, in the eastern portion of the site.

The proposed bike park site would support common species of wildlife that occur in grasslands. Special-status species are not expected. *Refer to Section IV.7, Biological Resources of this Initial Study for further discussion of biological resources.*

Cultural/Prehistoric Conditions

Research conducted for the proposed project identified on previously recorded archaeological site, CA-MRN-528, within the project area. However, the project area has been disturbed (i.e., annual discing, seeding, mowing, and baling) over the years and field surveys conducted for the cultural resources study did not identify any cultural resources within the project area. The local chert identified within the project area exhibits fractures that resemble scarring that occurs when lithic material is crushed, dragged or displaced by mechanical equipment such as the agricultural machinery used in the project area. Due to the presence of a previously recorded archaeological site and the project area's proximity to the creek, the project area is considered sensitive for archaeological deposits. Ground disturbance associated with grading of the project area and construction of bike park improvements could affect subsurface deposits associated with CA-MRN-528, as well as previously unidentified prehistoric and historical resources and human remains in the project area. *Refer to Section IV.14, Cultural Resources of this Initial Study for further discussion of cultural resources.*

H. Plans and Technical Reports: The following technical reports were prepared by the County's consultant team to define and address potential impacts from the proposed project. These documents are incorporated by reference and are available for public inspection Monday through Friday from 8:30 P.M. until 4:30 P.M. at the Marin County Parks located at 3501 Civic Center Drive, Room #260, San Rafael, CA 94903.

Planning Documents

County of Marin, Community Development Agency. *Marin Countywide Plan*. 2007.

Geotechnical Report

Miller Pacific Engineering Group, 2011. *Geologic and Geotechnical Feasibility Study*. Prepared for the Marin County Parks Department. June 23.

Cultural Resources Study

LSA Associates, Inc., 2011. *Cultural Resources Study for the Stafford Lake Bike Park*, Novato, Marin County, California. June 23.

III. EVALUATION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to Section 15063 of the State CEQA Guidelines, and the County EIR Guidelines, Marin County will prepare an Initial Study for all projects not categorically exempt from the requirements of CEQA. The Initial Study evaluation is a preliminary analysis of a project that provides the County with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration. The points enumerated below describe the primary procedural steps undertaken by the County in completing an Initial Study checklist evaluation and, in particular, the manner in which significant environmental effects of the project are made and recorded.

- A. The determination of significant environmental effect is to be based on substantial evidence contained in the administrative record and the County's environmental database consisting of information regarding environmental resources and environmental goals and policies relevant to Marin County. As a procedural device for reducing the size of the Initial Study document, relevant information sources cited and discussed in topical sections of the checklist evaluation are incorporated by reference into the checklist (e.g. general plans, zoning ordinances). Each of these information sources has been assigned a number which is shown in parenthesis following each topical question and which corresponds to a number on the database source list provided herein as Attachment 1. See the sample question below. Other sources used or individuals contacted may also be cited in the discussion of topical issues where appropriate.
- B. In general, a Negative Declaration shall be prepared for a project subject to CEQA when either the Initial Study demonstrates that there is no substantial evidence that the project may have one or more significant effects on the environment. A Negative Declaration shall also be prepared if the Initial Study identifies potentially significant effects, but revisions to the project made by or agreed to by the applicant prior to release of the Negative Declaration for public review would avoid or reduce such effects to a level of less than significance, and there is no substantial evidence before the Lead County Department that the project as revised will have a significant effect on the environment. A signature block is provided in Section VII of this Initial Study to verify that the project sponsor has agreed to incorporate mitigation measures into the project in conformance with this requirement.
- C. All answers to the topical questions must take into account the whole of the 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. Significant unavoidable cumulative impacts shall be identified in Section VI of this Initial Study (Mandatory Findings of Significance).
- D. A brief explanation shall be given for all answers except "Not Applicable" answers that are adequately supported by the information sources the Lead County Department cites in the parenthesis following each question. A "Not Applicable" 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 "Not Applicable" answer shall be discussed 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).
- E. "Less Than Significant Impact" is appropriate if an effect is found to be less than significant based on the project as proposed and without the incorporation of mitigation measures recommended in the Initial Study.
- F. "Potentially Significant Unless Mitigated" applies where the incorporation of recommended mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead County Department must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section V, "Earlier Analyses", may be cross-referenced).
- G. "Significant Impact" is appropriate if an effect is significant or potentially significant, or if the Lead County Department lacks information to make a finding that the effect is less than significant. If there are one or more effects that have been determined to be significant and unavoidable, an EIR shall be required for the project.
- H. The answers in this checklist have also considered the current California Environmental Quality Act Guidelines and considered all of the topical issues addressed in the Initial Study Checklist contained in those Guidelines.

IV. ISSUES (and Supporting Information Sources):

1. LAND USE AND PLANNING. *Would the proposal:*

a) Conflict with applicable Countywide Plan designation or zoning standards? (source #(s): 1, 2)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The proposed project would construct a bike park facility within the boundaries of the existing Stafford Lake Park. The County Park is located within unincorporated Marin County and subject to the land use and zoning designations of the Marin Countywide Plan (CWP).

For policy purposes, the county is divided into three environmental corridors with Stafford Lake Park located within the Inland Rural Corridor. The CWP establishes seven planning areas in the county that further define policies applicable to specific areas and parcels. Stafford Lake Park is located in the Novato Planning Area and has a land use designation of Public Facility (PF) - Open Space (OS) (Map 1.2 West Novato Land Use Policy Map). The Marin County Code specifies that the parcel is zoned Agriculture and Conservation and Limited Agriculture (A60, A2-B4) which allows public parks as a permitted use.

The proposed project would not require a change to the land use or zoning designations that apply to the county, thus the proposed project would not conflict with applicable CWP land use designations or County zoning standards.

b) Conflict with applicable environmental plans or policies adopted by Marin County? (source #(s): 1, 2)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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The objectives and policies of the CWP and Title 22 (Zoning) of the Marin County Code govern land-use designations and development of the project site. The CWP includes land-use policies that are applicable to this project, and the general consistency with these policies is described below.

The discussion of policy consistency in this Initial Study represents County staff interpretation of policies, but does not determine policy consistency. The formal policy consistency determinations are made by County decision-makers. Policy inconsistencies may not necessarily indicate significant environmental effects. Section 15358(b) of the CEQA Guidelines states that "effects analyzed under CEQA must be related to a physical change in the environment." Therefore, only those policy inconsistencies that would lead to a significant effect on the physical environmental are considered significant impacts pursuant to CEQA. Where potentially significant environmental impacts are raised in the discussion below, they have been mitigated to a less than significant impact and, therefore, project activities are determined to be consistent with the relevant policies cited. Mitigations are addressed further in the topical impact sections following plan policy analyses.

Special Status Species and Sensitive Habitat Areas

CWP BIO-1.1 Protect Wetlands, Habitat for Special-Status Species, Sensitive Natural Communities, and Important Wildlife Nursery Areas and Movement Corridors. Protect sensitive biological resources, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through careful environmental review of proposed development applications, including consideration of cumulative impacts, participation in comprehensive habitat management programs with other local and resource agencies, and continued acquisition and management of open space lands that provide for permanent protection of important natural habitats.

CWP BIO-1.3 Protect Woodlands, Forests, and Tree Resources. Protect large native trees, trees with historical importance; oak woodlands; healthy and safe eucalyptus groves that support colonies of monarch butterflies, colonial nesting birds, or known raptor sites; and forest habitats. Prevent the untimely removal of trees through implementation of standards in the Development Code and the Native Tree Preservation and Protection Ordinance. Encourage other local agencies to adopt tree preservation ordinances to protect native trees and woodlands, regardless of whether they are located in urban or undeveloped areas.

CWP BIO-2.1 Include Resource Preservation in Environmental Review. Require environmental review pursuant to CEQA of development applications to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors. Require adequate mitigation measures for ensuring the protection of any sensitive resources and achieving “no net loss” of sensitive habitat acreage, values, and function.

CWP BIO-2.2 Limit Development Impacts. Restrict or modify proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, baylands and coastal habitat, and riparian habitats, as necessary to ensure the continued health and survival of these species and sensitive areas. Development projects should preferably be modified to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or (as a lowest priority) off-site replacement at a higher ratio.

CWP BIO-2.3 Preserve Ecotones. Condition or modify development permits to ensure that ecotones, or natural transitions between habitat types, are preserved and enhanced because of their importance to wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.

CWP BIO-2.4 Protect Wildlife Nursery Areas and Movement Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and essential habitat for special-status species, including an assessment of cumulative impacts.

CWP TRL-2.1 Preserve the Environment. In locating and designing trails, protect sensitive habitat and natural resources by avoiding those areas.

Consistent. As documented in Section IV.7, Biological Resources, special-status plant and animal species, trees, and other natural vegetation could be adversely affected by development of the proposed bike park. However, Section IV.7, Biological Resources and Section IV.4, Water, include Mitigation Measures BIO-1 through BIO-6 and Mitigation Measure HYDRO-1, which would reduce potential impacts to biological resources to a less than significant level. Therefore, with recommended mitigation measures

in place, the proposed project would be consistent with CWP policies BIO-1.1, 1.3, BIO-2.1, through 2.4, and TRL-2.1.

Non-Native Invasive Plants

CWP BIO-1.5 Promote Use of Native Plant Species. Encourage use of a variety of native or compatible nonnative, non-invasive plant species indigenous to the site vicinity as part of project landscaping to improve wildlife habitat values.

CWP BIO-1.6 Control Spread of Invasive Exotic Plants. Prohibit use of invasive species in required landscaping as part of the discretionary review of proposed development. Work with landowners, landscapers, the Marin County Open Space District, nurseries, and the multi-agency Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and California Department of Agriculture.

CWP BIO-1.7 Remove Invasive Exotic Plants. Require the removal of invasive exotic species, to the extent feasible, when considering applicable measures in discretionary permit approvals for development projects unrelated to agriculture, and include monitoring to prevent re-establishment in managed areas.

Consistent. As documented in Section IV.7, Biological Resources, the project site is dominated by non-native grassland and supports several invasive species. The proposed project would preserve native species and re-vegetate disturbed slopes. Routine maintenance of the bike park would prevent the spread of invasive species throughout the site and onto adjacent lands. Therefore, the proposed project would be consistent with CWP policies BIO-1.5 through 1.7.

Bird Nesting

CWP BIO-2.5 Restrict Disturbance in Sensitive Habitat During Nesting Season. Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.

Consistent. As documented in Section IV.7, Biological Resources, implementation of Mitigation Measure BIO-2 would reduce potential impacts to nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code to a less than significant level. Therefore, the proposed project would be consistent with CWP policy BIO-2.5.

Wildlife Movement

CWP BIO-2.6 Identify Opportunities for Safe Wildlife Movement. Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the county. Of particular concern is the possible widening of Highway 101 north of Novato to the county line, where maintenance of movement opportunities for terrestrial wildlife between the undeveloped habitat on Mount Burdell and the marshlands along the Petaluma River is critical.

Consistent. The proposed project would improve 17 acres within an existing 139-acre county park as a bike park and would not substantially interfere with wildlife movement. Fencing already defines the boundary between the County Park and the adjacent property. Although the County will construct split-

rail fences to delineate the bike park area, within the greater park, these fences would not form a barrier that wildlife would not be able to move about the adjacent open space areas. Drainage crossings would allow normal wildlife movement to continue and these structures would not alter the channel bottom of the drainage. Therefore, the proposed project would be consistent with CWP policy BIO-2-6.

Wetlands

CWP BIO-3.1 Protect Wetlands. Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively. Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas: Coastal, Inland Rural, and Baylands Corridors:

- For all parcels, provide a minimum 100-foot development setback from wetlands (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). An additional buffer may be required, based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, Require Site Assessment. Exceptions to full compliance with the WCA setback standards may apply only in the following cases:
 1. Parcel is already developed with an existing use, provided no unauthorized fill or other modifications to wetlands have occurred as part of ongoing use of the property.
 2. Parcel is undeveloped and falls entirely within the WCA.
 3. Parcel is undeveloped and potential impacts on water quality, wildlife habitat, or other sensitive resources would be greater as a result of development outside the WCA than development within the WCA, as determined by a site assessment.
 4. Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback distance would not result in any significant adverse direct or indirect impacts on wetlands.

CWP BIO-3.2 Require Thorough Mitigation. Where avoidance of wetlands is not possible, require provision of replacement habitat on-site through restoration and/or habitat creation at a minimum ratio of 2 acres for each acre lost (2:1 replacement ratio) for on-site mitigation and a minimum 3:1 replacement ratio for off-site mitigation. Mitigation wetlands should be of the same type as those lost and provide habitat for the species that use the existing wetland. Mitigation should also be required for incursion within the minimum WCA setback/transition zone.

Consistent. As documented in Section IV.7 Biological Resources, implementation of Mitigation Measures BIO-3, BIO-4.1 and BIO-4.2 would ensure that potential impacts to wetlands and other jurisdictional waters would be reduced to a less than significant level. Therefore, the proposed project would be consistent with CWP policies BIO-3.1 and BIO-3.2.

Erosion Control

CWP WR-1.1 Protect Watersheds and Aquifer Recharge. Give high priority to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.

CWP WR 1.3 Improve Infiltration. Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site's predevelopment infiltration to reduce downstream erosion and flooding.

CWP WR-1.4 Protect Upland Vegetation. Limit development and grazing on steep slopes and ridgelines in order to protect downslope areas from erosion and to ensure that runoff is dispersed adequately to allow for effective infiltration.

CWP WR-2.3 Avoid Erosion and Sedimentation. Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.

CWP WR-2.4 Design County Facilities to Minimize Pollutant Input. Design, construct, and maintain County buildings, landscaped areas, roads, bridges, drainages, and other facilities to minimize the volume of toxics, nutrients, sediment, and other pollutants in stormwater flows, and continue to improve road maintenance methods to reduce erosion and sedimentation potential.

Consistent. Construction of the proposed bike park would include grading and earthwork. The proposed project includes a program to reduce erosion and control sedimentation by improving soil conditions in the upper areas of the site and creating bioswales at the lower elevations. The goal of the site drainage and sediment control program would be to capture all sedimentation on-site without any impact to offsite water quality. These measures would include: trail alignment protection, low-grade area protection, bio-retention protection, bioswale areas, bioberms, drainage channel protection, wood chips, wood shreds, and maintenance of bio-protection areas (see Project Description).

Sections IV.3, Geophysical and IV.4, Water of the Initial Study evaluate potential erosion and runoff effects from the project and identify appropriate mitigation measures. The incorporation of Mitigation Measures GEO-1 and HYDRO-1 require best management practices (BMPs) that reduce impacts resulting from grading and earthwork to less than significant levels. Therefore, the project would be consistent with CWP policies WR-1.1, 1.3, 1.4, 2.3, or 2.4.

Hydrology

CWP EH-3.2 Retain Natural Conditions. Ensure that flow capacity is maintained in stream channels and floodplains, and achieve flood control using biotechnical techniques instead of storm drains, culverts, riprap, and other forms of structural stabilization.

Consistent. The proposed bike park would include bridges over the drainage that runs diagonally through the site. These bridges would span the drainage and would not affect the hydrology of the drainage. Trail bridges would have rails and abutments on either side of the channel to ensure protection of the channel. As outlined in the project description, various biotechnical techniques would be incorporated into the proposed project to manage stormwater runoff, including installation of wood chip infiltration areas along trail alignments and construction of bioswales and bioberms with wood shred infiltration areas. Therefore, the project would be consistent with CWP policy EH-3.2.

Air Quality

CWP AIR-1.2 Meet Air Quality Standards. Seek to attain or exceed the more stringent of federal or State Ambient Air Quality Standards for each measured pollutant.

CWP AIR-4.1 Reduce Greenhouse Gas Emissions. Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.

Consistent. As discussed in Section IV.5, the proposed project's construction and operations emissions would not: 1) conflict with any applicable air quality plan; 2) generate levels of emissions that violate any air quality standard; or 3) contribute substantially to an existing or projected air quality violation. The project is not expected to result in a cumulative increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard or adversely affect sensitive receptors. With respect to global climate change, the proposed project would not conflict with the County's Greenhouse Gas Reduction Plan or generate greenhouse gases that would contribute to the cumulative effects of global warming. The project would also comply with County greenhouse gas reduction strategies through the implementation of Best Management Practices for construction activities. Therefore, the proposed project would be consistent with CWP policy AIR-1.2 and AIR-4.1.

Public Involvement

CWP OS-1.1 Enhance Open Space Stewardship. Promote collaborative resource management among land management agencies. Monitor resource quality. Engage the public in the stewardship of open space resources.

Consistent. County Parks would utilize volunteer assistance with County oversight for construction and maintenance of the proposed bike park. Volunteers would be asked to remove vegetation, build structures, and perform other necessary handwork, under the supervision of Park staff. Once constructed and operational, bike park volunteers would monitor trails and report problems to the Parks Department. Therefore, the project would be consistent with CWP policy OS-1.1.

Countywide Trail System

CWP Policy TRL-1.1 Protect the Existing Countywide Trail System. Maintain the existing countywide trail system and protect the public's right to access it.

CWP TRL-1.2 Expand the Countywide Trail System. Acquire additional trails to complete the proposed countywide trail system, providing access to or between public lands and enhancing public trail use opportunities for all user groups, including multi-use trails, as appropriate.

Consistent. The purpose of the proposed project is to provide a designated bike park within the county park system and thus temper or decrease the temptation to construct bike skill areas within existing open space or along existing trails. The bike park would provide needed recreation, promote safe bike skills and protect other sensitive open space environments within the county. Reduced use of county open space trails for such activities would benefit the county trail and open space system and protect sensitive habitats within the county. Therefore, the project would be consistent with CWP policies TRL-1.1 and 1.2.

Trespass

CWP TRL-2.2 Respect the Rights of Private Landowners. Design and manage trails to avoid trespass and trail construction impacts on adjacent private land.

Consistent. The purpose of the proposed project is to provide a needed bike skills park and therefore discourage the public from building jumps or altering existing trails within designated open space areas or adjacent private properties. A fence would surround the designated bike park and clearly separate the improved park area from adjacent private property and other areas of the County Park. By providing for a variety of skill levels, the proposed bike park would reduce use of existing social trails or damage to sensitive habitats on existing County open space. Signs would be installed at the entrance to the bike park outlining rules, directing users to stay on designated trails and to respect private property rights. Therefore, the proposed project would be consistent with CWP policy TRL-2.2.

User Safety

CWP TRL-2.3 Ensure User Safety. Plan and maintain trails to protect the safety of trail users.

Consistent. The bike park has been designed to include multiple features related to user safety to create a safe riding experience for all levels of riders. These features include slowing users down prior to trail intersections, designing fall zones (bailout) on each side of bike park features, designing one-way trails, designing trails with distant sight lines, and designing progressions into each park zone so users have the opportunity to ride and improve riding skills. Therefore, the project would be consistent with CWP policy TRL-2.3.

Accessibility

CWP TRL-2.5 Provide Access for Persons with Disabilities. Design and develop trails and trail programs to enhance accessibility by persons with disabilities.

Consistent. The proposed project would incorporate access for persons with disabilities. Parking, viewing and picnic areas and the portable restroom would comply with state and federal accessibility requirements. An accessible path-of-travel would connect parking to viewing and picnic areas. New ADA parking spaces would be installed near the main entrance of the bike park. Therefore, the project would be consistent with CWP policy TRL-2.5.

Maintenance

CWP TRL-2.7 Ensure Sustainable Maintenance. Continue to ensure that trails are responsibly maintained.

Consistent. The proposed project would include a maintenance program to describe maintenance activities that should be regularly performed in each area of the bike park. Maintenance activities would include clearing, raking, compacting, shaping and otherwise maintaining the dirt features including the trails, jumps lines, pump tracks, etc. In addition, inspecting signage, clearing potentially hazardous debris from fall zones, inspecting and repairing any damaged hardware on wooden structures, inspecting rock and wood features for structural integrity, and inspecting site drainage and sediment control features would also be part of the regular maintenance activities. Park staff would perform the daily trash pick-up and general park inspection and Parks would implement a comprehensive bike park volunteer program that would include training sessions, a volunteer agreement and maintenance protocols. A maintenance and monitoring program would include a written log and photo documentation of maintenance activities that have been performed and impacts of the general usage on various park facilities. Therefore, the proposed project would be consistent with CWP policy TRL-2.7.

Visual

CWP DES-4.1 Preserve Visual Quality. Protect scenic quality and views of the natural environment – including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.

Consistent. As described in Section IV.13, Aesthetics/Visual Resources, the proposed bike park would not block or otherwise affect views from other areas. The bike park would be located in an area of Stafford Lake Park that is behind a knoll and visually screened from Novato Boulevard thereby retaining existing views of the County Park from the roadway. Trail alignments within the bike park would generally follow natural contours. Trail construction would require the removal of some existing vegetation, but would retain the larger more visible trees within the most western area of the project site and the vegetation associated with the existing drainage. Proposed fencing would not result in adverse visual impacts as these improvements would be: constructed of natural materials designed to blend into the surroundings; generally low in height; and of sufficient distance from public view areas not to be visible. Therefore, the proposed project would be consistent with CWP policy DES-4.1.

Noise

CWP NO-1.3 Regulate Noise Generating Activities. Require measures to minimize noise exposure to neighboring properties, open space, and wildlife habitat from construction-related activities, yard maintenance equipment, and other noise sources, such as amplified music.

Consistent. As described in Section IV.10, Noise, the proposed project would not expose people to significant noise levels. Because of the short duration of the construction period, the relatively small size of the mechanical equipment, the distance from any sensitive receptors, and the nature of recreational use of the bike park, the noise associated with construction would not be significant. Special events would likely employ public address systems but the secluded location within the existing County Park would shield noise from adjacent property owners and other park areas. Additionally, the noise associated with special events is similar to special events in other areas of the park, such as the concerts that the County regularly permits to occur within Stafford Lake Park. Therefore, the project would be consistent with CWP policy NO-1.3.

Health

CWP PH-1.2 Promote Physical Activity. Increase opportunities for and interest in safe and pleasant physical activity.

CWP PH-1.3 Promote Healthy Environments. Provide school and community environments and policies that foster healthy lifestyles and behavior.

Consistent. The proposed bike park would provide for a range of bike skill abilities, including instructional features, so that riders could improve bike skills. A defined site for such uses would also allow for conducting special demonstration or competitive events. Therefore, the proposed project would promote physical activities and healthy behavior and would be a beneficial effect consistent with CWP policies PH 1.2 and PH 1.3.

Bicycle Access

CWP TR-2.1 Improve the Bicycle and Pedestrian Network. Promote adequate bicycle and pedestrian links, to the extent feasible, throughout the county, including streetscape improvements and standards that are safe and pedestrian and cycle friendly.

CWP TR-2.2 Provide New Bicycle and Pedestrian Facilities. Where appropriate, require new development to provide trails or roadways and paths for use by bicycles and/or on-street bicycle and pedestrian facilities. In-lieu fees may be accepted if warranted in certain cases.

CWP TR-2.4 Seek Funding Opportunities for Bicycle and Pedestrian Infrastructure. Seek grants and other funding opportunities available to construct new bicycle and pedestrian infrastructure and to connect existing segments.

Consistent. The proposed bike park would improve a designated area within an existing county park to practice bicycle skills for a range of abilities and interests. The proposed bike park would respond to an identified need from the bicycle community as documented in the County's Needs Assessment that accompanied the Marin County Parks Strategic Plan (June 2008). The proposed bike park would provide a needed recreation facility, would enable bicyclists to improve skills. An approved Stafford Lake Bike Park Master Plan would allow the County or bicycle interest groups to seek funding opportunities. The proposed project would be consistent with CWP policies TR-2.1, TR-2.2 and TR-2.4.

Traffic

CWP TR-1.2 Maintain Service Standards. Establish level of service standards for vehicles on streets and highways and performance standards for transit (see Map 3-8, Roadway Network of Marin County), bicycles, pedestrians, and other modes of transportation.

Consistent. The proposed bike park has the potential to generate up to 32 p.m. peak hour trips. These trips would be added to Novato Boulevard, which provides access to the park. The intersection of Novato Boulevard/San Marin Drive-Sutro Avenue currently operates at satisfactory level of service (LOS) C. When the project is added to the existing condition, the intersection would continue to operate at LOS C. In the build-out condition, the project would add 4.3 seconds of delay at the intersection and cause the LOS to change from LOS C to LOS D. However, LOS D is still considered satisfactory LOS. Therefore, the project would not cause the LOS at the intersection to deteriorate below acceptable standards and would be consistent CWP TR-1.2.

Historic Resources

CWP HAR-1.3 Avoid Impacts to Historical Resources. Ensure that human activity avoids damaging cultural resources.

Consistent. As discussed in Section IV.14, Cultural Resources, due to the presence of a previously recorded archaeological site and the project's proximity to the creek, the area is considered sensitive for archaeological deposits. Ground disturbance associated with the project could affect subsurface deposits associated with CA-MRN-528, as well as previously unidentified prehistoric and historical resources and human remains in the project area. With implementation of Mitigation Measures CULT-1 through CULT-4, the impact on cultural resources from the proposed project would be less than significant. Therefore, the project is consistent with CWP policy HAR-1.3.

Hazards

CWP EH-2.1 Avoid Hazard Areas. Require development to avoid or minimize potential hazards from earthquakes and unstable ground conditions.

CWP EH-2.2 Comply with the Alquist-Priolo Act. Continue to implement and enforce the Alquist-Priolo Earthquake Fault Zoning Act.

Consistent. As described in Section IV.3, Geophysical, the project site is located in the San Francisco Bay Area, which is one of the more seismically active regions in the United States. As such, the potential for strong seismic shaking at the project site is high. Strong seismic shaking could result in potential damage to structures and improvements. The project site also contains colluvial soils that appear to be slightly to moderately expansive. Implementation of Mitigation Measure GEO-1.1 and GEO-1.2 would reduce potential impacts associated with ground shaking and unstable ground to a less than significant level.

Additionally, because of the low intensity of structures (e.g., bridges, fencing) and use of the bike park, the proposed project would not result in new development that creates a hazard for users, adjacent development or result in significant increased instability. Therefore, the proposed project would be consistent with CWP policies EH-2.1 or EH-2.2.

Parks and Recreation

CWP PK-1.1 Conduct and Coordinate Park Planning. Develop park and recreation facilities and programs to provide for active recreation, passive enjoyment, and protection of natural resources as a complement to local, state, and national parks and open space in Marin.

CWP PK-1.2 Consider User Needs, Impacts, and Costs. Plan and develop any needed new park and recreation facilities and programs to meet the desires of the community and protect environmental resources.

Consistent. As discussed below, the proposed project responds to an identified need for biking opportunities in Marin County and Novato. The development of a bike park at Stafford Lake County Park

would implement the recommendations identified in the Strategic Plan, Needs Assessment, and Parks Master Plan prepared by Marin County Parks. Therefore, the proposed project is consistent with CWP policy PK-1.1 or PK-1.2.

c) Affect agricultural resources, operations, or contracts (e.g. impacts to soils or farmlands, impacts from incompatible land uses, or conflicts with Williamson Act contracts)? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed bike park would be located within the existing Stafford Lake Park, which is intended for recreational use. The adjacent property is used for agricultural production, growing hay. The Department of Conservation’s Farmland Mapping and Monitoring Program designates the site and surrounding lands as “Grazing Land”; however, the site is not currently used for grazing. In the past the site has been leased for hay production. The loss of the hay production of the area would not have a significant affect on the adjacent agriculture uses. In addition, the site is not under a Williamson Act contract. Therefore, the proposed project would not adversely affect agricultural resources, operations, or contracts.

d) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying area. The proposed bike park is located within an existing regional park located west of the City of Novato. The park is located near agricultural uses, a water storage facility, and other recreational and open space facilities, and is not located within or near an established community. Therefore, the project’s impact to an established community would be less than significant.

e) Result in substantial alteration of the character or functioning of the community, or present or planned use of an area? (source #(s): 1, 3)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Marin County Parks published a Strategic Plan in June 2008 to evaluate existing parks and open space and to describe improvements or facilities that respond to community needs. The public participated in developing the plan through telephone surveys, focus groups, workshops and community meetings. Stafford Lake County Park is one of four regional county parks with substantial visitation and a variety of facilities not available elsewhere in the County. Chapter 5 Strategic Plan Implementation, within the Mid-Term Action Plan, outlines a series of recommended actions including direction to “partner with the bicycle community to plan and build a bike park” (page 42). The Needs Assessment Report (Appendix A of the Strategic Plan) outlines community needs that include providing diverse recreation experiences and accommodating recreation preferences of Marin’s youth. In addition to a shortage of park facilities in Novato, the Needs Assessment found that existing regional parks have substantial capacity to accommodate new recreation facilities. The Parks Master Plan (Appendix B of the Strategic Plan) assesses existing facilities and provides specific direction for renovating existing facilities. The Parks Master Plan details recommended improvements for Stafford Lake County Park, including a bike park. Stafford Lake County Park does not have an adopted Master Plan.

The proposed bike park would be a developed, recreation facility within an existing regional county park that provides opportunities for active recreation use. The development of a bike park at Stafford Lake County Park would implement the recommendations identified in the Strategic Plan and in the Parks Master Plan prepared by Marin County Parks. Therefore, the proposed project would not alter the existing character or functioning of the community or present or planned use of the area. The proposed project would be consistent with the designation as a regional park.

<p>f) Substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities? (source #(s): 1, 3)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input checked="" type="checkbox"/></p>	<p>Not Applicable</p> <p><input type="checkbox"/></p>
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The proposed project would create a new, recreation facility within a currently undeveloped portion of the existing Stafford Lake County Park. The addition of this new facility would likely increase use of Stafford Lake County Park. However, as described above, the Needs Assessment prepared as part of the Strategic Plan, found that existing regional parks have substantial capacity to accommodate new recreation facilities. Therefore, the proposed project would not increase the demand for neighborhood or regional parks or other recreational facilities, but instead would satisfy the need for diverse recreational opportunities within the area.

2. POPULATION AND HOUSING. *Would the proposal:*

<p>a) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan? (source #(s): 1)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input type="checkbox"/></p>	<p>Not Applicable</p> <p><input checked="" type="checkbox"/></p>
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The proposed bike park would be located within the existing Stafford Lake Park and would not include development of residential housing. Therefore, the proposed project would not affect population densities within Novato or the unincorporated communities of Marin County.

<p>b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)? (source #(s): 1)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input type="checkbox"/></p>	<p>Not Applicable</p> <p><input checked="" type="checkbox"/></p>
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The proposed bike park would be located within the existing Stafford Lake Park and would not include development of residential housing or infrastructure or otherwise extend or establish uses that would induce population growth. Therefore, the proposed project would not directly or indirectly induce population growth within Novato or the unincorporated communities of Marin County.

<p>c) Displace existing housing, especially affordable housing? (source #(s): 1)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input type="checkbox"/></p>	<p>Not Applicable</p> <p><input checked="" type="checkbox"/></p>
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The proposed bike park would be located within the existing Stafford Lake Park. There is one existing residence within the County Park (usually occupied by staff or caretakers). However, the bike park would

be located on an undeveloped site within the park and no housing units are proposed for this site. Therefore, the proposed project would not displace existing housing.

3. GEOPHYSICAL. Would the proposal result in or expose people to potential impacts involving:

a) Location in an area of geologic hazards, including but not necessarily limited to: 1) active or potentially active fault zones; 2) landslides or mudslides; 3) slope instability or ground failure; 4) subsidence; 5) expansive soils; 6) liquefaction; 7) tsunami ; or 8) similar hazards? (source #(s): 1, 5, 6, 18)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following is based on the Geologic and Geotechnical Feasibility Study (2011) prepared by Miller Pacific Engineering Group to evaluate geologic hazards and develop preliminary geotechnical recommendations for use in the planning and design of the project.

Active or Potentially Active Fault Zones. The site is approximately 9 miles from the San Andreas Fault, 10 miles from the Rodgers Creek fault, and 12 miles from the Hayward fault. The project site is not within the delineated boundaries of a major fault zone as identified by the State of California Earthquake Fault Zone for active faults (formerly referred to as Alquist-Priolo Special Study Zones). Since surface faulting or ground rupture tends to occur along previous fault lines and identified fault lines or similar surface expressions are not located within the vicinity of the site, development of the proposed bike park would not adversely affect persons or structures due to the rupture of a known earthquake fault.

The project site is located in the San Francisco Bay Area, which is one of the more seismically active regions in the United States. Historically, numerous moderate to strong earthquakes have been generated in northern California by several major faults and fault zones in the San Andreas Fault Zone system. As it affects a much broader area, ground shaking, as opposed to surface fault rupture, is the cause of most damage during earthquakes.

Due to its location within the Bay Area, the potential for strong seismic shaking at the project site is high. The intensity of earthquake motion will depend on the characteristics of the generating fault, distance to the fault and rupture zone, earthquake magnitude, earthquake duration, and site-specific geologic conditions. Strong seismic shaking could result in potential damage to structures and improvements. Implementation of the following mitigation measure would reduce potential impacts associated with ground shaking to a less than significant level.

Mitigation Measure GEO-1.1: Design and construction of the proposed project shall be in conformance with current best standards for earthquake resistant construction in accordance with the California Building Code, applicable local codes, and in accordance with the generally accepted standard of geotechnical practice for seismic design in Northern California. In addition, project design for the Stafford Lake Bike Park shall follow the recommendations of the site-specific Geologic and Geotechnical Feasibility Study prepared for the proposed project by Miller Pacific (2011).

Monitoring Measure GEO-1.1: Parks shall verify that project plans and specifications adhere to the California Building Code and include site-specific recommendations outlined in the Geologic and Geotechnical Feasibility Study. Parks shall also monitor the condition of the bike park throughout construction during routine field inspections to ensure recommendations are being implemented.

Landslides, Mudslides, and Slope Instability. As described above, one moderately-sized landslide is located in the north-central portion of the project site. This landslide originated off-site to the northwest of the project site, from the peak of the low ridgeline. However, no evidence of active landslides or recent landslide activity was identified during site survey. The topographic conditions upslope (northwest) of the site consist of a moderately steep hillside that has experienced previous slope movement and the potential for landslides and debris flows originating from this off-site area is moderate. However, the project site itself has gentle slopes and the potential for instability within the planned bike park is low. Development of the proposed bike park would not result in a risk to property or public safety given the low intensity of physical structures and use of the bike park for recreation. Therefore, impacts associated with landslides, mudslides and slope instability would be considered less than significant.

Subsidence or Expansive Soils. Subsidence or collapse can result from the removal of subsurface water resulting in either catastrophic or gradual depression of surface elevation. Expansive soil undergoes changes in volume that correspond with changes in water content (i.e., expansive soil shrinks when dry and swells when wet). These changes in volume may damage lightly loaded foundations, flatwork, and pavements. Expansive soils can also cause soil creep on sloping ground. Colluvial soils on the project site appear to be slightly to moderately expansive. The steeper slopes within the project site, coupled with slightly expansive surface soils, may be prone to soil “creep.” As described above, development of the proposed bike park would not result in a risk to property or public safety given the low intensity of physical structures and use of the park for recreation. In addition, implementation of Mitigation Measure GEO-1 would ensure that the proposed project would incorporate the recommendations of the Geologic and Geotechnical Feasibility Study, including specifications related to the compaction of fill material. Therefore, impacts associated with subsidence or expansive soils would be less than significant.

Liquefaction, Settlement, Lurching and Ground Cracking. Liquefaction refers to the sudden, temporary loss of soil strength during strong ground shaking. This phenomenon can occur in saturated, loose, granular deposits when they are subjected to seismic shaking. Liquefaction related phenomena include seismically-induced settlement, flow failure and lateral spreading. The site primarily consists of fine-grained soils, which are underlain by bedrock of the Franciscan Complex. Neither the colluvial soils nor bedrock is likely to liquefy. The potential for significant liquefaction is low.

Significant settlement can occur when new loads are placed at sites due to consolidation of soft, compressible clays or compression of loose soils. The site appears to be blanketed with medium stiff-to-stiff colluvial soils that have the potential for compression settlement with a significant applied surface load. Due to the minor planned fills, no significant settlement would occur at the site.

Lurching and associated ground cracking can occur during strong ground shaking. Ground cracking generally occurs along the tops of slopes where stiff soils are underlain by soft deposits or along steep slopes or channel banks. Soft soils are not expected at the project site. Therefore, lurching and ground cracking are not considered significant hazards at the site.

Tsunami. The project site is located approximately 9 miles from San Pablo Bay and 12 miles away from the Pacific Ocean. At this distance, the project site is not at risk from impacts associated with a tsunami. Therefore, no potential safety hazards associated with tsunamis would occur as a result of project development.

b) Substantial erosion of soils due to wind or water forces and attendant siltation from excavation, grading, or fill? (source #(s): 1, 5, 6, 18)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sandy soils on moderately steep slopes or clayey soils on steep slopes are susceptible to erosion when exposed to concentrated surface water flow. The potential for erosion is increased when established vegetation is disturbed or removed during normal construction activity. The gentle to moderately steep slopes on the project site may be susceptible to erosion from surface water flow. Active erosion is present in the ravines in the vicinity of the project site. The potential for erosion at the project site is low to moderate.

Stormwater from the project site will be treated by strategically designed sediment control measures. The goal of this proposed component is to capture all sedimentation onsite and not affect water quality in the reservoir. Implementation of Mitigation Measures HYDRO-3 and HYDRO-4 (refer to Section IV.4, Water) would reduce potential impacts associated with erosion and sedimentation to a less than significant level.

<p>c) Substantial changes in topography from excavation, grading or fill, including but not necessarily limited to: 1) ground surface relief features; 2) geologic substructures or unstable soil conditions; and 3) unique geologic or physical features? (source #(s):)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input checked="" type="checkbox"/></p>	<p>Not Applicable</p> <p><input type="checkbox"/></p>
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Site improvements associated with the proposed bike park would change the existing topography but would not result in a substantial change in site topography from grading, excavation or fill. The bike park would be located on gently sloping terrain and would generally follow the natural contours of the landscape. As outlined in the project description, the loop trail and descending trails and some riding features would be constructed with existing soil excavated on-site. Additional soil would be imported as necessary for the lower elevation riding trails and zones and to ensure the riding surfaces are well compacted and properly stabilized. Cuts and fills will be balanced on site, except where limited amounts of imported clay soil are required to ensure trail compaction. While construction of the proposed bike park would require cut and fill to stabilize proposed features, changes to the existing topography would be less than significant.

4. WATER. Would the proposal result in:

<p>a) Substantial changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? (source #(s): 1, 7)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input checked="" type="checkbox"/></p>	<p>Not Applicable</p> <p><input type="checkbox"/></p>
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The project site is located within the Novato Creek watershed, which encompasses approximately 45 square miles and represents the largest watershed in eastern Marin County. The area is characterized by warm dry summers and cool wet winters with the majority of the average annual precipitation, approximately 42 inches, occurring as rain between November 1st and April 1st. The extensive open space lands surrounding the project site provide a vegetated buffer for the project and allow rain to percolate into the ground rather than run off rapidly.

As part of the proposed project, four bridges would be constructed across the channel that bisects the project site. These wooden bridges would extend across the banks of the channel without any impacts to the bed or bank of the channel. However, the project site would continue to absorb water or discharge excess water into the natural topography. Therefore, the proposed project would not significantly alter absorption rates of the area.

The proposed project would avoid significant alteration to drainage patterns, which can be of concern where the project would disturb or grade lands adjacent to the existing drainage, where trails would cross the existing drainage, or where proposed features have the potential to collect and concentrate stormwater. The bike park would be designed to capture and treat sediment eroding from the trails. The project includes soil treatment measures to reduce erosion at the upper reaches of the site and bioswales at lower levels of the park to capture sediment. The goal of the project's sediment control features is to treat all sedimentation onsite and without any impact to water quality off-site. These features proposed as part of the project include installation of wood chip infiltration areas along trail alignments, construction of bioswales and bioberms with wood shred infiltration areas, installation of rails and abutments on trail bridges to protect the channel, and placement of rock-energy dissipater where the channel flow exits the culvert east of the access road. These improvements would prevent the concentration of surface runoff that could result in erosion or siltation and allow the project to avoid substantial erosion on-site or siltation off-site. Additionally, compliance with the National Pollutant Discharge Elimination System General Permit for Construction and implementation of Mitigation Measure HYDRO-4 (refer to Section IV.4, Water) would reduce potential impacts associated with erosion and sedimentation to a less than significant level.

Wetlands and Other Waters

The proposed bike park site contains an ephemeral watercourse and possible wetlands. The proposed bike park could potentially affect an ephemeral watercourse and would affect a possible wetland. Any impacts to the bed and bank of the watercourse would be under the jurisdiction of the California Department of Fish and Game (CDFG). If the delineation required by BIO-5.1 indicates that wetlands are within the jurisdiction of the U.S. Army Corps of Engineers (Corps) or the Regional Water Quality Control Board (RWQCB), impacts to these wetlands and any unanticipated impacts to the watercourse would require permits from these agencies. In addition, the watercourse is incised and its banks are actively eroding. Implementation of Mitigation Measures BIO-4, BIO-5.1, and BIO-5.2 (refer to Section IV.7, Biological Resources) would reduce potential impacts to wetlands and other waters to a less than significant level. Refer to Section IV.7, Biological Resources, for further discussion regarding wetlands and other waters.

b) Exposure of people or property to water related hazards, including, but not necessarily limited to: 1) flooding; 2) debris deposition; or 3) similar hazards? (source #(s): 1, 8)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is not located within the 100-year floodplain according to maps published by the Federal Emergency Management Agency (2009). The proposed bike park would be designed to allow park rangers to close the bike park during periods of high rain, wet riding conditions, and other unsafe conditions (i.e., wet/unstable soils).

As outlined in the project description, routine maintenance of park features would be conducted, including inspection and repair of damaged hardware on wooden structures, clearing potentially hazardous debris from fall zones, inspection of rock and wood features for structural integrity, and inspection of site drainage and sediment control features. If any park feature is in need of repair and has the potential to expose people to hazards, Marin County Parks would close and repair that section of the bike park. Therefore, the potential for the project to result in flooding or to expose people to flooding or other water-related hazards is less than significant.

<p>c) Discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g. temperature, dissolved oxygen or turbidity)? (source #(s): 1)</p>	<p>Significant Impact</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p style="text-align: center;"><input type="checkbox"/></p>	<p>Not Applicable</p> <p style="text-align: center;"><input type="checkbox"/></p>
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Construction-Period Impacts. Disturbance during construction would result in erosion and associated discharge of additional sediment and/or other pollutants. The National Pollutant Discharge Elimination System General Permit (GP) for Construction (Order 2009-009-DWQ) requires construction sites over one acre that do not qualify for a waiver to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP).

Based on a preliminary assessment using the on-line erosivity risk assessment¹, this project would not qualify for a waiver, but would be considered to have a low sediment risk of less than 15 tons per acre. Based on additional risk assessment consideration of receiving water impairment and beneficial uses, the proposed project would require a Risk Level 1 SWPPP. The SWPPP would be implemented to ensure that water discharging from the site would not contain a hazardous substance in reportable quantities, and that discharge of other pollutants (including sediment) would be minimized or prevented. To achieve those standards, the SWPPP would incorporate good site management (“housekeeping”), erosion control best management practices (BMPs), sediment control BMPs, and run-on and runoff controls. The SWPPP would also require weekly visual inspections and maintenance and repair of BMPs as necessary. Erosion and sediment control BMPs incorporated into the project description would also be part of the SWPPP. These BMPs include vegetation retention, scheduling of construction during the dry season, avoidance of the drainage channel, seeding of temporarily disturbed areas, mulching with wood chips and shreds, installation of a rock energy dissipator at the discharge point of the existing drainage, and careful grading to disperse and avoid concentration of runoff. These measures would provide the best available conventional technology to prevent or minimize discharges of sediment except for during the most extreme events, such as those exceeding the 5-year, 24-hour storm that is exempted from the GP Numeric Action Level (NAL) reporting limit for Risk Level 2 SWPPPs.

BMPs to prevent pollution associated with fueling and servicing equipment that would be implemented as part of the SWPPP include:

- Equipment maintenance and fueling areas for mobile equipment shall be at least 200 feet from an aquatic site.
- Servicing of mobile equipment shall be limited to designated areas away from sensitive habitats.
- Motorized equipment used during construction shall be checked daily for oil, fuel, and coolant leaks prior to initiating work.
- Any equipment found to be leaking fluids shall not be used in or within 200 feet of aquatic habitat features.
- Oil catchment mats shall be placed under vehicles parked overnight on the work site.

As required under the GP, Parks would monitor the 5-day NOAA forecast during the active construction period, and conduct run-on and runoff water quality sampling during any Qualifying Rain Event.² Turbidity (an indication of sediment levels) would be sampled with a portable meter at the uphill location where the existing drainage channel enters the project site, and at the downhill location where the drainage exits

¹ <http://cfpub.epa.gov/npdes/stormwater/lew/lewcalculator.cfm>

² Any event that produces 0.5 inches or more of precipitation with a 48-hour or greater period between rain events.

the project site. If the difference between the uphill and downhill samples causes turbidity in runoff into Stafford Lake from the site to exceed the Risk Level 2 NAL of 250 NTUs³, Parks would inspect the BMPs, determine the source(s) of additional sedimentation from the project site, and repair, replace or relocate the BMPs, as necessary.

Operational (Post-Construction) Impacts. Permanent BMPs incorporated into the design to minimize erosion and sedimentation during operation of the Bike Park include trail alignment to disperse runoff, installation of wood chip infiltration areas, construction of bioswales and bioberms, and an ongoing BMP maintenance program. These measures should be effective to minimize erosion and sedimentation except in the most extreme storm events. However, because of the sensitivity of Stafford Lake as a drinking water source, the following additional measures are proposed to reduce impacts to less than significant levels:

Mitigation Measure HYDRO-3: Parks shall conduct run-on and runoff water quality sampling during a Qualifying Rain Event in the first two rainy seasons of Bike Park operations. Turbidity shall be sampled with a portable meter at the uphill location where the existing drainage channel enters the project site, and at the downhill location where the drainage exits the project site. If the difference between the uphill and downhill samples causes turbidity in runoff into Stafford Lake to exceed 250 NTUs, Parks shall inspect the BMPs, determine the source(s) of additional sedimentation from the project site, and repair, replace or relocate the BMPs as necessary.

Monitoring Measure HYDRO-3: Parks shall ensure that post-construction water quality monitoring is conducted for the first two years of operation to monitor the effectiveness of the permanent BMPs and the implementation of corrective actions, as necessary to ensure their effectiveness.

d) Substantial change in the amount of surface water in any water body or ground water either through direct additions or withdrawals, or through intersection of an aquifer by cuts or excavations? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project does not include any facilities that would change the surface water in any water body or ground water through direct additions or withdrawals. In addition, the project would not interfere with any aquifer. Therefore, the potential for the project to result in substantial changes in the amount of surface water in any water body or ground water would be less than significant.

e) Substantial changes in the flow of surface or ground waters, including, but not necessarily limited to: 1) currents; 2) rate of flow; or 3) the course or direction of water movements? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As described above, the proposed project would include the construction of four bridges across the drainage channel that bisects the project site. These wooden bridges would extend across the banks of the channel without any impacts to the bed or bank of the channel. Trail bridges would have rails and abutments on either side of the channel to ensure protection of the channel. Downslope from the gravel roadway, where channel flow exits a culvert beneath the road, a small amount of rock would be placed in an area 3-feet wide by 5-feet long to reduce the velocity of water exiting the site. The rip-rap would reduce the flow of stormwater runoff generated by the proposed project, but would not affect the flow of

³ Nephelometric turbidity units

surface or ground waters on the project site. Therefore, the potential for the project to result in substantial changes to the flow of surface or ground water is less than significant.

f) Substantial reduction in the amount of water otherwise available for public water supplies? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project would include the use of water for construction, operation and maintenance of the Bike Park. Water would be supplied by the existing public water infrastructure that currently exists within Stafford Lake County Park. The Bike Park would result in a slight increase in water demand over existing levels. However, the increase in demand would not significantly reduce the quantity of public water supplies. Therefore, this impact is considered less than significant.

5. AIR QUALITY. *Would the proposal:*

a) Generate substantial air emissions that could violate official air quality standards or contribute substantially to an existing or projected air quality violation? (source #(s): 1, 19, 20, 21, 22, 23, 24)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) have established health-based ambient air quality standards (AAQs) for seven air pollutants, including ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM₁₀, PM_{2.5}), and lead. In addition, the ARB makes State area designations for ten criteria pollutants: ozone, suspended particulate matter (PM₁₀), fine suspended particulate matter (PM_{2.5}), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particles. The project site is located in the San Francisco Bay Area Air Basin, under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD regulates levels of air pollutants in the San Francisco Bay Area Basin (Air Basin) and monitors the Air Basin’s attainment status.

Air pollutant emissions associated with the proposed project would occur over the short term as a result of construction activities and over the long term due to vehicle trips associated with operation of the bike park. These activities could result in air quality violations in association with: 1) construction equipment exhaust emissions; 2) construction dust; 3) long-term vehicular emissions; and 4) greenhouse gas emissions. Expected sources of air pollution resulting from the proposed project are discussed below.

The BAAQMD has established operation and construction screening level sizes to provide a conservative indication of whether a project could result in a potentially significant air quality impact. At 17 acres, the park site is well below the screening size for operational criteria air pollutants of 2,613 acres, greenhouse gas emissions (600 acres) and construction emissions (67 acres). Therefore, construction and operation of the bike park would not be a significant source of regional air pollutants. Construction of the park is only anticipated to take 4 months and many of the park features will be constructed using hand tools, which would not generate air pollutants. The bike park also would generate less than 100 trips per day and therefore would not generate a substantial amount of daily regional emissions. Therefore, construction exhaust and operation of the bike park would be less than significant.

Construction dust would affect local air quality at various times during construction of the proposed project. The dry, windy climate of the area during the summer months creates a high potential for dust generation if underlying soils are exposed. Clearing, grading and earthmoving activities have a high potential to generate dust whenever soil moisture is low and particularly when the wind is blowing.

Construction activities would result in increased dust and locally elevated levels of particulates downwind of construction activity. Construction dust has the potential to create a nuisance at nearby properties. In addition to nuisance effects, excess dust can increase maintenance and cleaning requirements and could adversely affect sensitive electronic devices.

Implementation of Mitigation Measure AIR-1 would reduce construction-related dust and emissions to a less than significant level.

Mitigation Measure AIR-1: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project site.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at Marin County regarding dust complaints. This person shall respond and take corrective action within 48 hours.

Monitoring Measure AIR-1: Parks shall ensure that the above measure is implemented throughout the construction period.

With implementation of Mitigation Measure AIR-1 above, the proposed project would not generate substantial air emissions that could violate official air quality standards or contribute substantially to an existing or projected air quality violation

Global Climate Change. There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm by trapping heat in the Earth's atmosphere. While many studies show evidence of warming over the last century and predict future global warming, the causes of such warming and its potential effects are far less certain. In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

GHGs are present in the atmosphere naturally, are released by natural sources, or formed from secondary reactions taking place in the atmosphere. The six gases that are widely seen as the principal contributors to global climate change are: Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydroflourocarbons (HFCs), Perflourocarbons (PFCs), and Sulfur Hexaflouride (SF₆).

According to the Countywide Plan, nearly 3 million tons of carbon dioxide is emitted in Marin every year. Vehicle traffic accounts for 50 percent of the total emissions, and energy use by buildings (residential, commercial, and industrial combined) accounts for 41 percent.

The *BAAQMD CEQA Guidelines*, adopted in May 2011, include thresholds of significance for operational GHG emissions to provide lead agencies with a conservative indication of whether a proposed project could result in potentially significant GHG emissions. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the project's air pollutant emissions, including GHG emissions. The BAAQMD has established a 1,100 metric tons of CO₂e/year GHG threshold of significance. According to the BAAQMD the screening level size for a City Park is 600 acres. The proposed Stafford Lake bike park, at 17-acres, is well below the screening size of 600 acres. Therefore, the proposed project is not expected to generate GHG emissions that would exceed the threshold established by the BAAQMD and would not conflict with any plan related to the reduction of greenhouse gas emissions.

b) Expose sensitive receptors to pollutants, such as noxious fumes or fugitive dust? (source #(s): 1,	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Given that the proposed project is located in a rural undeveloped area and that the extent of construction activities is relatively small, the proposed project would not expose sensitive receptors to noxious fumes or fugitive dust. As described in Section IV.5(a) above, the project would not generate significant amounts of air pollutants and the amount of dust generated during construction would be minimal and short-term. In addition, implementation of Mitigation Measure AIR-1 would reduce any impacts to a less than significant level. Therefore, emissions generated by the proposed project that affect air quality would have a less than significant impact on sensitive receptors.

c) Alter air movement, moisture, or temperature, or cause any change in climate? (source #(s): 1,)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As described in Section IV.5(a), implementation of the proposed project would not generate significant GHG emissions. Therefore, the proposed bike park would not result in alterations to local temperatures and would not result in a significant contribution to changes in the global climate. Additionally, the proposed project would not have an effect on air movement or moisture.

d) Create objectionable odors? (source #(s): 1,)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The *BAAQMD CEQA Guidelines* list potential odor sources that could cause significant environmental impacts. The types of operations that would occur on the project site are not included in this list and would not generate objectionable odors. In addition, the proposed project is not located downwind from any significant odor sources (e.g., landfills, sewage treatment plants) that could affect persons within the project site.

Some objectionable odors could be generated from the operation of diesel-powered construction equipment and during the project construction period. However, these odors would be short-term in nature and would not result in permanent impacts to surrounding land uses, including sensitive receptors in the vicinity of the project site. Implementation of the proposed project would not create objectionable odors affecting a substantial number of people or subject persons to objectionable odors.

6. TRANSPORTATION/CIRCULATION. *Would the proposal result in:*

- | | | | | |
|--|--|--|---|--|
| <p>a) Substantial increase in vehicle trips or traffic congestion such that existing levels of service on affected roadways will deteriorate below acceptable County standards?
(source #(s): 1, 9, 10, 25)</p> | <p>Significant Impact</p> <p><input type="checkbox"/></p> | <p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p> | <p>Less Than Significant Impact</p> <p><input checked="" type="checkbox"/></p> | <p>Not Applicable</p> <p><input type="checkbox"/></p> |
|--|--|--|---|--|

The proposed bike park would be open during park hours, which are from 7:00 a.m. to 8:00 p.m. during the summer, 7:00 a.m. to 7:00 p.m. during the spring and fall, and 8:00 a.m. to 5:00 p.m. during the winter. It is anticipated that peak weekday usage of the bike park would be during the afternoon/early evening hours from 3:00 p.m. until the park closes. The peak number of users in the park during weekday hours is estimated to be approximately 30 users.

A Traffic Impact Study⁴ was recently prepared for a similar proposed bike park in the City of Lafayette. To determine the vehicle trip generation for the proposed bike park in Lafayette, surveys of three similar bike parks were conducted by TJKM. The surveys were conducted at Pleasanton Bike Park in Pleasanton, CA; Cummings Family Skate and Bike Park in Folsom, CA; and Moraga Commons Bike Park in Moraga, CA. Using the surveys, a trip generation rate per bike park user was determined. Based on these surveys, the weekday p.m. peak hour trip generation of a similar bike park was estimated to be 1.05 trips per bike park user. The highest peak hour for the similar facilities was between 4:00 p.m. and 5:00 p.m. Application of the trip generation rate from the Lafayette Bike Park study to the estimated 30 peak users at the Stafford Lake Bike Park results in the trip generation for the proposed bike park. The trip generation analysis for the proposed project is shown in the table below:

Table A: Project Trip Generation

Peak Park users	Trip Rates per Park User ¹			Trip Generation		
	In (52%)	Out (48%)	Total	In	Out	Total
30 Users	0.55	0.50	1.05	17	15	32

¹ Trip rates from *Traffic Impact Study for Proposed Bike Park in Lafayette Community Park*, TJKM, March 28, 2011.

As shown in the table, the project has the potential to generate up to 32 p.m. peak hour trips. These trips would be added to Novato Boulevard, which provides access to the park, with random arrival and departure times.⁵ The segment of Novato Boulevard from San Marin Drive, east to US-101 is identified as a principal arterial in the designated roadway network for the 2007 Marin County Congestion Management Program (CMP). The CMP provides level of service (LOS) monitoring for this segment of roadway. According to the 2007 Marin County CMP, Novato Boulevard east of San Marin Drive (within the City of Novato) operates at LOS B during the p.m. peak hour. The level of service standard for this roadway is LOS D. West of San Marin Drive, Novato Boulevard is a two-lane rural roadway and likely

⁴ *Traffic Impact Study for Proposed Bike Park in Lafayette Community Park*, TJKM, March 28, 2011

⁵ Because the majority of the population expected to use the bike park is located east of the project site, this Initial Study assumes that 100 percent of trips would come from the Novato City limits. It is possible that a small percentage (10 to 15 percent) could come from the west via Point Reyes-Petaluma Road. Based on the total peak hour trip generation of 32 trips, approximately 3 to 5 trips could come to and from the west. It is unlikely that the addition of up to five trips per hour would negatively affect roadway facilities located west of the project site.

carries fewer p.m. peak hour trips than the segment located within the City of Novato, which is also a two-lane roadway.

The City of Novato's traffic consultant, W-Trans, provided a peak hour intersection analysis of the p.m. peak hour LOS at the intersection of Novato Boulevard/San Marin Drive-Sutro Avenue. The analysis was provided for the existing and build-out conditions with and without the project. W-Trans assumed 25 trips to and from the park during the p.m. peak hour, which is a conservative estimate when compared to the trip generation shown in Table A. The p.m. peak hour LOS at Novato Boulevard/San Marin Drive-Sutro Avenue is shown in Table B.

Table B - Novato Boulevard/San Marin Drive-Sutro Avenue PM Peak Hour LOS

	Without Bike Park		With Bike Park	
	Delay (sec.)	LOS	Delay (sec.)	LOS
Existing	18.1	C	19.8	C
Build-out	25.0	C	29.3	D

sec = seconds
Source: W-Trans

As shown in Table B, the intersection of Novato Boulevard/San Marin Drive-Sutro Avenue currently operates at satisfactory LOS C. In the future build-out condition, the intersection is forecast to continue to operate at LOS C. When the project is added to the existing condition, the intersection would continue to operate at LOS C. In the build-out condition, the project would add 4.3 seconds of delay at the intersection and cause the LOS to change from LOS C to LOS D. However, LOS D is still considered satisfactory LOS. Therefore, the project would not cause the LOS at the intersection to deteriorate below acceptable standards.

As noted in the project description, the bike park would be used for special bike-related public and private events. These events could range from small groups (1-10 people) to large-scale events with as many as 1,000 participants and spectators. The largest events would occur 1-2 times per year. It should be noted that Stafford Lake County Park currently hosts large-scale events, including music concerts and festivals, drawing as many as 5,000 people. Events held at the proposed bike park would generate a significant number of vehicle trips 1-2 times per year. However, the vehicle trips would not exceed those generated during the largest events currently held at Stafford Lake County Park and would therefore not constitute a substantial increase in trips for special events.

b) Traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment)? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Access to the proposed bike park would be by existing roadways both within and outside the park. No change to the design of existing roadways is proposed. The project would not block access to pedestrians or bicyclists. Rather the project would provide an amenity in the existing park for bicyclists. During construction, equipment such as trucks, backhoes, excavators, dozers, etc. would be used. At the completion of construction, most maintenance work would be done with hand tools; however, there would be seasonal maintenance efforts with mechanized equipment. Seasonal use of mechanized equipment would be infrequent and would not introduce an incompatible use on a frequent or regular basis.

c) Inadequate emergency access or access to nearby uses? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The project would be built on a site within the existing Stafford Lake County Park. There would be no changes would be made to existing emergency access routes or access to nearby uses. As a result, the project would not result in inadequate emergency access or access to nearby uses.

d) Insufficient parking capacity on-site or off-site? (source #(s): 9)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Parking at Stafford Lake County Park is provided in on-site parking lots. No parking is allowed on Novato Boulevard. Within the Stafford Lake County Park site, a parking lot with approximately 100 parking spaces is located adjacent to the site of the proposed bike park. An additional 10 spaces (8 regular spaces and 2 handicapped spaces) would be added near the bike park site. Overall, the Park has approximately 175 paved parking spaces and an overflow parking area that can accommodate approximately 1,000 vehicles. In addition, there is an unpaved area designated for overflow parking. This overflow area can accommodate approximately 800 cars. According to the TJKM study prepared for the proposed Bike Park in Lafayette, the parking demand for the proposed bike park would be 0.58 spaces per user. During peak weekday usage, the 30 users would generate a demand for 18 parking spaces. These spaces could be accommodated by the 10 spaces adjacent to the bike park and additional parking available throughout Stafford Lake County Park. According to Marin County park rangers, the parking capacity at the Park far exceeds its average use. Park activities that attract individual users such as the disc golf course, hiking, fishing or small (less than 20 persons) picnics do not have a substantial affect on parking capacity. Per Marin County regulations, large groups (20 people or more) are required to have a reservation. Large events (over 1,000 people) that affect the entire Park occur one to two times per year. As described above, an overflow parking area has been designated to accommodate these large events. Given the relatively small demand for parking generated by the proposed project (18 spaces), the 10 additional spaces proposed as part of the project and the existing parking capacity at Stafford Lake County Park, the project would not result in insufficient on- or off-site parking capacity.

e) Substantial impacts upon existing transportation systems, including rail, waterborne or air traffic systems? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The proposed project is located within an existing county park and would not generate significant additional vehicle, bicycle or pedestrian trips when compared to the existing park use. As a result, the proposed bike park would not result in adverse effects on existing or proposed transportation systems.

7. BIOLOGICAL RESOURCES. *Would the proposal result in:*

a) Reduction in the number of endangered, threatened or rare species, or substantial alteration of their habitats including, but not necessarily limited to: 1) plants; 2) fish; 3) insects; 4) animals; and 5) birds listed as special-status species by State or Federal Resource Agencies? (sources #(s): 1, 11)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following summarizes the methods, findings, and recommendations relating to biological and wetland resources.

Methods

Prior to conducting field investigations, LSA reviewed available information with the California Department of Fish and Game’s California Natural Diversity Data Base (CNDDDB) for records of special-status species that occur in the area adjacent to the project site. LSA staff visited the project site on March 27, April 1, 2011 and June 22, 2011.

Vegetation

The proposed bike park is dominated by non-native grassland. The prior land use of much of the site was farming for hay. The steeper slopes were not farmed but are also dominated by non-native grasses. Besides non-native grassland, the site also supports an ephemeral watercourse and potential jurisdictional wetlands.

Non-native Grassland. Non-native Grassland occurs throughout the project site. Cover of this grassland varies between 60 and 100 percent. The height of this grassland averages 18 inches. The grassland is dominated by large patches of the following non-native species: vetch (*Vicia sativa*), wild radish (*Raphanus* sp.), ripgut brome (*Bromus diandrus*), and wild oats (*Avena* sp.). Other non-native species that occur in the grassland include soft chess (*Bromus hordeacous*), hare barley (*Hordeum murinum* ssp. *leporinum*), hood Canary grass (*Phalaris paradoxa*), narrow-leaved plantain (*Plantago lanceolata*), spurry (*Spergularia arvense*), chickweed (*Stellaria media*), and red-stemmed filaree (*Erodium cicutareum*).

A few native species occur in the non-native grassland. Fiddleneck (*Amsinckia menziesii* var. *intermedia*) and red maids (*Calandrinia ciliata*) are native species that occur in agricultural fields. The fiddleneck grows in a large patch on-site while the red maids grows early in the season before being overgrown by taller species. Other native species include purple needlegrass (*Stipa pulchra*), harvest brodiaea (*Brodiaea elegans*), and sun cups (*Cammissonia ovata*) that occur on the upper slopes of the proposed bike park site. The purple needlegrass grows in small stands less than 100 square feet in size. The small number of native species in the grassland is the result of the prior land use practices of cultivation and grazing and the dense non-native grasses that now occur on-site.

Invasive species that occur on-site include Italian thistle (*Carduus pycnocephala*), poison hemlock (*Conium maculatum*), and milk thistle (*Silybum marianum*).

Several large valley oak trees occur in the grassland of the project site. These trees range in size from approximately 8 inches to over 24 inches in diameter. In addition to these large trees, sapling valley oak trees that are 1 – 2 inches in diameter also occur on-site. Valley oak trees and shrubs such as coffee berry (*Rhamnus californicus*) and coyote brush (*Baccharis pilularis*) have been planted along the ephemeral watercourse.

Possible Jurisdictional Waters

An ephemeral watercourse crosses the center of the proposed bike park. This watercourse begins at an off-site ranch road that concentrates run-off through a culvert onto the project site. The watercourse is incised approximately 5 – 7 feet and is approximately 3 - 10 feet wide on the steep portions of the site. Some concrete rubble and rock have been placed in the watercourse reduce down cutting. The banks of the watercourse in this location are steep and actively eroding.

The watercourse narrows to 0.5 to 2 feet wide and 4 – 6 inches deep on the flat portion of the project site. This reach of watercourse supports wetland vegetation consisting of curly dock (*Rumex crispus*) and pennyroyal (*Mentha pulegium*). This wetland vegetation occurs within and beside the watercourse in patches 5 feet wide to 10 feet long. Special-status species are absent from this watercourse.

A graded flat area of the project site occurs beside a road cut and seep. The road cut appears to have intercepted sub-surface flow of water and thereby created the seep as the water daylight at the road cut. The graded flat area supports temporary ponding, algal mats, and hydrophytic vegetation, at least during wet winters such as that of 2010-2011. The hydrophytic vegetation consists mostly of the following non-native species: brass buttons (*Cotula coronopifolia*), annual bluegrass (*Poa annua*), curly dock, pennyroyal, and narrow-leaved plantain. Native species present in this area include loosestrife (*Lythrum hyssopifolium*), toad rush (*Juncus bufonius*), and popcorn flower (*Plagiobothrys* sp.).

Wildlife

Locally common wildlife species associated with grasslands could occur on the site. Species observed and/or are expected to occur on the site include black-tailed deer (*Odocoileus hemionus*), western fence lizard (*Sceloporus occidentalis*), northern alligator lizard (*Elgaria coerulea*), gopher snake (*Pituophis catenifer*), garter snake (*Thamnophis* spp.), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), turkey vulture (*Carthartes aura*), song sparrow (*Melospiza melodia*), Savannah sparrow (*Passerculus sandwichensis*), white-crowned sparrow (*Zonotrichia leucophrys*), tree swallow (*Tachycineta bicolor*), black phoebe (*Sayornis nigricans*), western scrub-jay (*Aphelocoma coerulescens*), and California towhee (*Pipilo crissalis*). Large numbers of Canada geese (*Branta canadensis*) graze within Stafford Lake Park near the project site. Most native birds and their active nests, nestlings, and eggs are protected from direct take by the federal Migratory Bird Treaty Act and the California Fish and Game Code.

Special-Status Plants and Animals

Special-status Species Plants. Special-status plants that could occur on or in the vicinity of the proposed bike park are listed in Table A along with their potential to occur on the project site. These are species whose grassland habitat occurs on the project site and they could potentially occur in the vicinity of the site. Nevertheless, these species are unlikely to occur on the project site because of regular tilling of the lower portions of the site and the occurrence of dense non-native grassland in the upper portions of the site. The tilling would directly remove special-status plant species and the dense non-native grassland is correlated with a low number of native plants indicating a low likelihood for the occurrence of special-status plant species. Species of plants that appeared in the query of the California Natural Diversity Database and are unlikely to occur on the project site due to the absence of habitat are listed in Table C. In general, special-status plant species are unlikely to occur on the project site because of the history of disturbance and the occurrence of dense non-native grassland. There are no known records of special-status plant species on the project site.

Animals. Special-status animals that could occur on or in the vicinity of the proposed bike park are listed in Table E along with their potential to occur on the project site. Species of animals that appeared in the query of the California Natural Diversity Data Base and are unlikely to occur on the project site due to the absence of habitat are listed in Table F. Special-status animal species are not known from the site and

are unlikely to occur there because of the regular disturbance, absence of cover, marginal habitat, and regular visitation by humans.

Table C: Potentially Occurring Special-status Plant Species Stafford Lake Bike Park, Marin County, California

Scientific name Common name	Status* (USFWS/ CDFG/RPR)	Habitat affinities and blooming period/life form	Potential for occurrence
<i>Amsinckia lunaris</i> Bent-flowered fiddleneck	-/-/1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. March-June	None to low. Potential habitat is present in study area; not observed during surveys.
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	-/-/1B	Grassland, often serpentine May – June	None to low. Grassland habitat present, but serpentine absent and not observed during surveys
<i>California macrophylla</i> Round-leaved filaree	-/-/1B	Grassland. March – June	None to Low. Not observed during surveys; known from Petaluma area from historic collection.
<i>Delphinium luteum</i> Yellow larkspur	-/-/1B	Cismontane woodland, coastal prairie, coastal scrub. March-May	Low to None. Potential habitat in the grassland; not observed during surveys.
<i>Fritillaria liliacea</i> Fragrant fritillary	-/-/1B	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland often on serpentinite or clay soils. February-April	None to Low. Potential habitat in the grasslands; not observed during surveys.
<i>Helianthella castanea</i> Diablo helianthella	-/-/1B	Broad-leaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. March-June	None to low. Potential habitat occurs at the edge of grassland and woodland or chaparral; not observed during surveys.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Seaside tarplant	-/-/1B	Valley and foothill grassland, sometimes along roadsides. April-November	None to low. Potential habitat occurs in grassland. Not observed during surveys.
<i>Holocarpha macradenia</i> Santa Cruz tarplant	FT/CE/1B	Coastal prairie, coastal scrub, valley and foothill grassland in light, sandy soil or sandy clay. June-October	None to Low. Potential habitat occurs in grassland; known Marin County occurrence is extirpated. Not observed during surveys.
<i>Microseris paludosa</i> Marsh microseris	-/-/1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. April-June	None to low. Potential habitat in grassland; not observed during surveys.
<i>Navarretia rosulata</i> Marin County navarretia	-/-/1B	Closed-cone coniferous forest and chaparral on serpentinite. May-July	None. No serpentinite in study area.
<i>Pentachaeta bellidiflora</i> White-rayed pentachaeta	FT/CE/1B	Cismontane woodland, valley and foothill grassland on open, dry rocky slopes and grassy areas, often on serpentinite.	None to low. Potential habitat in grassland; not observed during surveys.

Scientific name Common name	Status* (USFWS/ CDFG/RPR)	Habitat affinities and blooming period/life form	Potential for occurrence
		March-May	
<i>Plagiobothrys mollis</i> var. <i>vestitus</i> Petaluma popcorn flower	-/-1A	Grassland and possibly salt marsh edges. June-July	None to low. Not observed during surveys.
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	-/-1B	Broad-leaved upland forest, closed- cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland in open areas, sometimes on serpentinite. April-May	None to low. Usually occurs on immediate coast; not observed during surveys.
<i>Trifolium amoenum</i> Showy Rancheria clover	FE/-1B	Coastal bluff scrub, valley and foothill grassland, sometimes on serpentinite. April-June	None to low. Potential habitat in grassland areas, but few known extant occurrences; not observed during surveys.

*** Status**

U.S. Fish and Wildlife Service (USFWS)

FE = federally listed endangered

FT = federally listed threatened

California Department of Fish and Game (CDFG)

CE = California listed endangered

CR = California listed as rare

CT = California listed as threatened

California Rare Plant Rank (RPR)

List 1B: Plants rare and endangered in California and elsewhere

List 2: Plants rare and endangered in California but more common elsewhere

List 3: Plants about which additional data are needed

Table D: Special-status Plant Species Unlikely to Occur at the Stafford Lake Bike Park, Marin County, California

Scientific Name	Common Name
Species of Sand Dunes and Sandy Soils	
<i>Abronia umbellata</i> var. <i>breviflora</i>	Pink sand-verbena
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	San Francisco Bay spineflower
<i>Chorizanthe valida</i>	Sonoma spineflower
Serpentine Endemic Species	
<i>Castilleja affinis</i> ssp. <i>neglecta</i>	Tiburon paintbrush
<i>Cirsium hydrophilum</i> var. <i>vaseyi</i>	Mt. Tamalpais thistle
<i>Eriogonum luteolum</i> var. <i>caninum</i>	Tiburon buckwheat
<i>Hesperolinon congesta</i>	Marin dwarf flax
<i>Lessingia micradenia</i> var. <i>micradenia</i>	Tamalpais lessingia
<i>Navarretia rosulata</i>	Marin County navarretia
<i>Sidalcea hickmanii</i> ssp. <i>viridis</i>	Marin checkerbloom
<i>Streptanthus batrachopus</i>	Tamalpais jewel-flower
<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>	Mount Tamalpais bristly jewel-flower
Freshwater Marsh and Ponds	
<i>Alopecurus aequalis</i> var. <i>sonomensis</i>	Sonoma alopecurus
<i>Campanula californica</i>	swamp harebell
<i>Carex lyngbyei</i>	Lyngbye's sedge

Scientific Name	Common Name
<i>Cicuta maculata</i> var. <i>bolanderi</i>	Bolander's water-hemlock
<i>Pleuropogon hooverianus</i>	North Coast semaphore grass
<i>Rhynchospora californica</i>	California beaked-rush
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	Point Reyes checkerbloom
Salt and/or Brackish Water Marsh	
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch
<i>Castilleja ambigua</i> ssp. <i>humboldtensis</i>	Humboldt Bay owl's-clover
<i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	Point Reyes bird's-beak
<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	Soft bird's-beak
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis
<i>Polygonum marinense</i>	Marin knotweed
Seasonal Wetlands, Vernal Pools	
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch
<i>Lasthenia congesta</i>	Contra Costa goldfields
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia
<i>Plagiobothrys glaber</i>	Smooth popcorn flower
Scrub, Chaparral, and/or Woodland	
<i>Amorpha californica</i> var. <i>napensis</i>	Napa false indigo
<i>Arctostaphylos hookeri</i> ssp. <i>montana</i>	Mt. Tamalpais Manzanita
<i>Arctostaphylos virgata</i>	Marin Manzanita
<i>Boschniakia hookeri</i>	Small groundcone
<i>Dirca occidentalis</i>	Western leatherwood
<i>Ceanothus gloriosus</i> var. <i>porrectus</i>	Mt. Vision ceanothus
<i>Ceanothus masonii</i>	Mason's ceanothus
<i>Horkelia tenuiloba</i>	Thin-lobed horkelia
<i>Quercus parvula</i> var. <i>tamalpaisensis</i>	Tamalpais oak
Species of the Coast	
<i>Cirsium andrewsii</i>	Franciscan thistle
<i>Fritillaria lanceolata</i> var. <i>tristulis</i>	Marin checker lily
<i>Delphinium bakeri</i>	Baker's larkspur
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	Perennial goldfields
<i>Gilia capitata</i> ssp. <i>chamissonis</i>	Blue coast gilia
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	Woolly-headed gilia
<i>Horkelia marinensis</i>	Pt. Reyes horkelia
<i>Leptosiphon croceus</i>	Coast yellow leptosiphon
<i>Lilium martinum</i>	Coast lily
<i>Phacelia insularis</i> var. <i>continentis</i>	North coast phacelia

Table E: Potentially Present Special-status Animal Species Stafford Lake Bike Park, Marin County, California

Scientific name Common name	Status* (USFWS / CDFG)	Habitat affinities	Potential for occurrence
Amphibians			
<i>Rana boylei</i> Foothill yellow-legged frog	-/SSC	Prefers permanent stream pools, and creeks with emergent and/or riparian vegetation.	None. No suitable habitat present.
<i>Rana draytonii</i> California red-legged frog	FT/SSC	Prefers semi-permanent and permanent stream pools, ponds, and creeks with emergent and/or riparian vegetation. Occupies upland habitat especially during	None. Upland habitat present; no aquatic breeding habitat; distant

		the wet winter months.	from breeding ponds.
Birds			
<i>Athene cunicularia</i> Burrowing owl	-/SSC	Open, dry grasslands, deserts, prairies, farmland and scrublands with abundant active and abandoned mammal burrows. Prefers short grasses and moderate inclined hills.	Low. Suitable habitat present, but climate not favorable in nesting season.
<i>Circus cyaneus</i> Northern harrier	-/SSC	Nests and forages in grasslands and open marshland, both salt and fresh. Nests consist of a thin to thick layer of small sticks and reeds, lined with grasses.	Low. Suitable habitat present; not observed during surveys.
<i>Elanus leucurus</i> White-tailed kite	-/FP	Inhabits low rolling foothills and valley margins with scattered oaks and river bottomlands or marshes adjacent to deciduous woodlands. Prefers open grasslands, meadows and marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate. Suitable habitat present; not observed during surveys; nesting known to occur in site vicinity.
Mammals			
<i>Antrozous pallidus</i> Pallid bat	-/SSC	Day roosts include rock outcrops, mines, caves, buildings, bridges, and hollows and cavities in a wide variety of tree species. High reliance on oak woodland habitat in many portions of its range in California. Forages on larger prey taken on the ground or in the air, usually within 5 miles of the day roost.	Moderate. Suitable habitat present in large trees.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	-/SSC	Roosting sites include caves, mine tunnels, abandoned buildings, and other structures. Forages in a variety of plant communities including coastal conifer and broad-leaf forests, oak and conifer woodlands, arid grasslands, and deserts.	None. No suitable roosting habitat present.
<i>Taxidea taxus</i> American badger	-/SSC	Inhabits open grasslands, savannas and mountain meadows near timberline. Requires abundant burrowing mammals, their principal food source, and loose, friable soils.	Low. Burrows or other evidence absent.

*Status

U.S. Fish and Wildlife Service (USFWS)	California Department of Fish and Game (CDFG)
FE = federally listed endangered	CE = California listed endangered
FT = federally listed threatened	CT = California listed as threatened
FC = federally candidate for listing	SSC = Species of special concern
	FP = California fully protected

Table F: Special-status Animal Species Unlikely to Occur at the Stafford Lake Bike Park, Marin County, California

Scientific Name	Common Name
Serpentine Endemic Species	
<i>Calicina diminua</i>	Marin blind harvestman
<i>Talanites ubicki</i>	Ubick's gnaphosid spider
Freshwater Marsh, Perennial Watercourses and Ponds	
<i>Caecidotea tomalensis</i>	Tomales isopod
<i>Geothlypis trichas sinuosa</i>	Saltmarsh common yellowthroat
<i>Ischnura gemina</i>	San Francisco forktail damselfly
<i>Pomatiopsis binneyi</i>	Robust walker (snail)

Scientific Name	Common Name
<i>Syncaris pacifica</i>	California freshwater shrimp
<i>Oncorhynchus kisutch</i>	Coho salmon - central California coast ESU
<i>Oncorhynchus mykiss irideus</i>	Steelhead - central California coast
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail
Salt and/or Brackish Water Marsh, Tidal Areas	
<i>Eucyclogobius newberryi</i>	Tidewater goby
<i>Laterallus jamaicensis coturniculus</i>	California black rail
<i>Melospiza melodia samuelis</i>	San Pablo song sparrow
<i>Rallus longirostris obsoletus</i>	California clapper rail
<i>Reithrodontomys raviventris</i>	Salt-marsh harvest mouse
<i>Tryonia imitator</i>	Mimic tryonia (California brackishwater snail)
Seasonal Wetlands, Vernal Pools	
<i>Hydrochara rickseckeri</i>	Ricksecker's water scavenger beetle
Scrub, Chaparral, and/or Woodland	
<i>Aplodontia rufa phaea</i>	Point Reyes mountain beaver
<i>Dendroica petechia brewsteri</i>	Yellow warbler
<i>Lasionycteris noctivagans</i>	Silver-haired bat
<i>Lasiurus blossevillii</i>	Western red bat
<i>Lasiurus cinereus</i>	Hoary bat
<i>Vespericola marinensis</i>	Marin hesperian
Species of the Coast	
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover
<i>Cicindela hirticollis gravida</i>	Sandy beach tiger beetle
<i>Danaus plexippus</i>	Monarch butterfly
<i>Lichnanthe ursina</i>	Bumblebee scarab beetle
Stonecrop	
<i>Callophrys mossii marinensis</i>	Marin elfin butterfly
Groves of Native or Non-native Trees	
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron
Buildings, Mine Shafts, or Caves	
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat
Waterfalls	
<i>Cypseloides niger</i>	Black swift

Special-status Species

Records from the California Natural Diversity Database (CNDDDB 2011) and other sources indicate that special-status plant and animal species may occur in the general vicinity of the proposed bike park. Work outside of the project site in undisturbed areas could potentially affect special-status species. Implementation of the following mitigation measure would ensure that potential impacts to special-status species would be reduced to a less than significant level.

Mitigation Measure BIO-1: Staging and lay-down areas for construction shall be clearly designated, designed to minimize the area affected, and shall be located in previously disturbed areas or areas of the project site proposed for disturbance.

Monitoring Measure BIO-1: Parks shall ensure that the above measure is implemented prior to and throughout the construction period.

Nesting Birds

Active nests, eggs, and nestlings of birds that are protected under the Federal Migratory Bird Treaty Act and the California Fish and Game Code could be directly impacted by construction activities during the breeding season by destruction of nests or direct impacts to birds and eggs. Implementation of the following mitigation measure would ensure that potential impacts to protected bird species would be reduced to a less than significant level.

Mitigation Measure BIO-2: Construction during the non-breeding season would avoid direct impacts to breeding birds and their nest contents. The following measures shall be implemented if construction activities take place during the breeding season, defined as the period from February 15 to August 1.

- Preconstruction surveys shall be conducted by a biologist with field experience with the birds potentially breeding in the project area. The surveys shall be conducted no more than 14 days prior to the initiation of any project activities (including tree trimming, grading, and excavation). The Biologist shall locate and map active songbird nests within the project site and present a report of the survey results to Parks. The Biologist shall locate and map active raptor nests on and within 500 feet of the project site boundary.
- Surveys shall be repeated at 14-day intervals in areas where construction has not been initiated or human activity has not been continuous during the previous 14 days.

If active nests are located near or within the proposed construction area, measures to avoid impacts shall include one or more of the following:

- For active nests of raptors (i.e., birds of prey) located on or within 500 feet of the construction site, an exclusion zone shall be established based on the sensitivity of the raptor to disturbance, the terrain, vegetation, or other factors affecting nest disturbance.
- If needed to maintain the construction schedule, a biologist with experience observing nesting raptors will examine the feasibility of reducing the buffer surrounding the raptor nest to not less than 100 feet after the eggs have hatched. To ensure that the adult and/or or young raptors are not disturbed by the nest buffer reduction, the raptor biologist shall conduct daily monitoring for 3 days immediately after the buffer is reduced and weekly monitoring thereafter. Monitoring of the nest shall be conducted with a spotting scope to observe whether the adults and/or young show any behavioral response to construction equipment, human activity, and/or noise. If the birds are not stressed and appear to be behaving normally at the nest, the reduced buffer can be maintained. Based on the discretion of the raptor biologist, a larger buffer of an appropriate size shall be re-established, if there are effects from the smaller buffer.
- For active nests of bird species other than raptors located on or within 50 feet of the construction site, exclusion zones extending 50 feet from the nest shall be established.

No construction activities shall be allowed within the exclusion zone until one of the following conditions have been met:

- The young have fledged from the nest.
- The birds abandon the nest on their own.
- The nest fails and the birds do not re-nest.

A biologist with field experience with the birds potentially breeding in the project area shall determine when these conditions are met.

Monitoring Measure BIO-2: Parks shall ensure that the above measures are implemented prior to and throughout the construction period.

Erosion Control

Erosion control blankets and straw wattles are sometimes constructed with plastic netting, which can act as a trap for wildlife, particularly native snakes and lizards. Implementation of Mitigation Measure BIO-3, below, would reduce potential impacts to wildlife that could occur with erosion control to a less than significant level.

Mitigation Measure BIO-3: Use of erosion control blankets that contain plastic netting shall be prohibited from the project site.

Monitoring Measure BIO-3: Parks shall ensure that the above measure is implemented throughout the construction period.

<p>b) Substantial change in the diversity, number, or habitat of any species of plants or animals currently present or likely to occur at any time throughout the year? (source #(s) (sources #(s): 1, 11)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input checked="" type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input type="checkbox"/></p>	<p>Not Applicable</p> <p><input type="checkbox"/></p>
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Wetlands and Other Waters

The proposed bike park could potentially affect an ephemeral watercourse and would affect a possible wetland. Any impacts to the bed and bank of the watercourse would be under the jurisdiction of the CDFG and, if confirmed, the possible wetland and watercourse would be under the jurisdiction of the Corps and RWQCB.

If confirmed as a wetland, the project would discharge fill into a seasonal wetland on a previously graded area. The project does not include the placement of any temporary or permanent fill into the stream or other impacts to the bed and bank of the drainage.

Mitigation Measure BIO-4: Prior to construction, the watercourse shall be staked, fenced, or otherwise marked to prevent accidental fill or damage.

Monitoring Measure BIO-4: Parks shall verify that the above measure is implemented prior to and throughout the construction period during routine field inspections.

As previously discussed, there is a possible wetland, approximately ¼-acre in size, within the project site. This possible wetland is an artificially created graded area in which water remains in shallow depressions. Mitigation Measure BIO-5.1 requires a wetland delineation be submitted to the Corps to allow the Corps to determine jurisdictional status. If the Corps concludes that the area is jurisdictional, Mitigation Measure BIO-5.2 would be implemented to reduce this potential impact to a less than significant level.

Mitigation Measure BIO-5.1: Parks shall conduct a wetland delineation of the possible wetland area and the lower portions of the creek that support wetland vegetation and submit the delineation to the Corps for verification. If the Corps or RWQCB determines that jurisdictional wetlands occur on site and would be affected, Parks shall implement Mitigation Measure BIO-5.2.

Mitigation Measure BIO-5.2: If required by the Corps or the RWQCB, Parks shall develop and implement a wetland restoration plan consistent with the requirements of these agencies. If the creation of new wetlands is required by these agencies, the plan shall consider the creation of in-kind wetlands (e.g., impacted herbaceous seasonal wetlands shall be replaced with herbaceous seasonal wetlands) in the vicinity of the project alignment or within the same watershed as the preferred option. New wetlands shall meet the Corps or RWQCB definitions for jurisdictional wetlands. If required by these agencies, Parks shall monitor the success of the wetland creation project consistent with the agencies' standards.

Monitoring Measure BIO-5: Parks shall verify that a wetland delineation was completed and submitted to the Corps. Parks shall also verify that if required by the Corps, new wetlands are created as specified in the above mitigation measure.

Ordinance Trees

The County of Marin has established a protected tree classification for trees native to Marin that grow in non-agricultural areas under the County's jurisdiction (Native Tree Preservation and Protection Ordinance No. 3342). Trees are defined at 6 or 10 inches diameter at breast height (DBH) depending on the species. For the purposes of this document, removal would include any action that would remove greater than a third of the root or foliage volume of a protected tree. There are several ordinance-sized oak trees within the project site. However, Parks designed the Bike Park to avoid removal of any of these trees. Even with this avoidance measure, the construction activities could result in significant impacts to these trees. Therefore, the following mitigation measure is necessary to avoid any significant impacts to the trees.

Mitigation Measure BIO-6: The following measures shall be implemented to protect the existing trees greater than 6 inches in diameter from harm:

- Parks staff shall mark the perimeter of the dripline of any tree to preclude entry of construction vehicles. Construction-related activities such as parking, refueling, maintenance of vehicles, etc, shall not occur beneath the canopy of any tree.
- Grading activities shall not be conducted within the dripline of any tree greater than 6 inches in diameter.
- Materials and supplies shall not be stored beneath any tree.

Monitoring Measure BIO-6: Parks shall ensure that the above measures are implemented prior to and throughout the construction period.

<p>c) Introduction of new species of plants or animals into an area, or improvements or alterations that would result in a barrier to the migration, dispersal or movement of animals? (source #(s) (sources #(s): 11)</p>	<p>Significant Impact</p> <p><input type="checkbox"/></p>	<p>Potentially Significant Unless Mitigated</p> <p><input type="checkbox"/></p>	<p>Less Than Significant Impact</p> <p><input checked="" type="checkbox"/></p>	<p>Not Applicable</p> <p><input type="checkbox"/></p>
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Invasive plant species include those listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and the California Department of Agriculture as well as others that meet the criteria. The project site is dominated by non-native grassland and supports several invasive species, including Italian thistle (*Carduus pycnocephala*), poison hemlock (*Conium maculatum*), and milk thistle (*Silybum marianum*). Historically, the project site has been used for hay production.

As part of the proposed project, the County would preserve much of the native vegetation on the site (i.e., the large oak trees, drainage and associated vegetation) and would re-vegetate disturbed slopes to reduce soil erosion. Currently, annual mowing of the hay field reduces the number of weeds and limits the dispersal of weed seeds off site. Routine maintenance of the proposed bike park, including clearing of vegetation, bi-annual mowing of the grass within the project site, and inspection and maintenance of the site drainage and sediment control features, would similarly limit the spread of invasive species throughout the project site and onto adjacent lands. Therefore, the proposed project would not introduce new species of plants or animals into an area and this impact would be less than significant.

8. ENERGY AND NATURAL RESOURCES. *Would the proposal result in:*

a) Substantial increase in demand for existing energy sources, or conflict with adopted policies or standards for energy use? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project would generate new vehicle trips and a corresponding increase in the use of fossil fuels as users would likely drive to access the project site. However, the number of trips generated by the proposed project would be relatively small and would not be significant in relation to the number of existing users who drive to Stafford Lake County Park. The small-scale nature of the proposed project would not require substantial amounts of energy for either construction or maintenance purposes. Therefore, the proposed project would not conflict with adopted policies or standards for energy use.

b) Use of non-renewable resources in a wasteful and inefficient manner? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Building materials that would be used to construct the proposed bike park are readily available from numerous sources in Marin County. As previously discussed, the small-scale nature of the proposed project would not require substantial amounts of energy for either construction or maintenance purposes. Therefore, the proposed project would not use non-renewable resources in a wasteful or inefficient manner.

c) Loss of significant mineral resource sites designated in the Countywide Plan from premature development or other land uses which are incompatible with mineral extraction? (source #(s): 1, 16)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Marin Countywide Plan identifies mineral sites in the Pt. San Pedro area of San Rafael, Nicasio, Mill Valley, and Novato. None of these sites is near the proposed bike park. Therefore, the proposed project would not adversely affect designated mineral resource sites or result in development or other land uses that would be incompatible with mineral extraction.

9. HAZARDS. *Would the proposal involve:*

a) A risk of accidental explosion or release of hazardous substances including, but not necessarily limited to: 1) oil, pesticides; 2) chemicals; or 3) radiation? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Construction and operation of the proposed project would not require the use of any explosive or hazardous materials. Although small quantities of commercially available hazardous materials could be used during project construction activities (e.g., oil, gasoline), these materials would not be used in sufficient quantities to pose a threat to human or environmental health. Such materials would be kept at construction staging areas, and would be secured when not in use. In addition, the project area is in its natural condition and is unlikely to have any hazardous substances on site. Therefore, development of the proposed project would not create a risk of accidental explosion or release of hazardous substances.

b) Possible interference with an emergency response plan or emergency evacuation plan? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Neither the nature nor the scope of the proposed project would result in interference with Marin County emergency response or emergency evacuation plans.

c) The creation of any health hazard or potential health hazard? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Development of the proposed bike park would not result in adverse impacts to air quality and would not require the use or storage of substantial amounts of hazardous materials. Therefore, the proposed project would not create a health hazard or potential health hazard.

d) Exposure of people to existing sources of potential health hazards? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is located in an existing County park that is managed for recreation uses. It is unlikely that future users of the proposed bike park would be exposed to sources of existing or future health hazards as none are known to occur within or in the vicinity of the site. Therefore, the proposed project would not result in exposure to existing or potential sources of health hazards.

e) Increased fire hazard in areas with flammable brush, grass, or trees? (source #(s): 1, 12, 13, 14, 17)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The California Department of Forestry and Fire Protection (CAL FIRE) designates the project area as lying within a zone of moderate fire hazard (CAL FIRE 2007). In addition, the Marin County General Plan indicates that the project site is ranked as a High Fire Risk zone. This rank is based on vegetation, slope, and aspect.

Public use of the proposed bike park would not change the degree of exposure to wildfires, because the bike park would not be open to motorized vehicles. In addition, Section 10.08 of the Marin County Municipal Code prohibits fires of any nature, except in permanent fixed barbecues, camp stoves, or fireplaces established by Marin County Parks. It also prohibits firecrackers, skyrockets, other fireworks or explosives, as well as smoking, except in designated areas specified for smoking. Stafford Lake County Park includes barbecue facilities for groups of up to 500 people; however, use of these facilities would be restricted per Section 10.08 of the Municipal Code. Rangers patrol the park and are trained in fire-fighting techniques. Parks' radio and repeater system combined with ranger patrols and staff on-call 24 hours per day enable prompt and effective communication with emergency service providers in the event of a wildland fire or an emergency response call. Therefore, use of the bike park would not result in an increased risk of fire hazards.

Construction of the bike park would occur on slopes that include grassy areas, oak woodlands, and other potentially flammable vegetation, increasing the fire hazard risk. During project construction, the most likely source of ignition would be by mechanical activities such as operation of backhoes, mini excavators, dozers, skid steer, skid loaders, or roller compactors. However, the potential for ignition can be greatly reduced through equipment features, fuel treatment, and management of behavior. Therefore, implementation of the following mitigation measures would reduce the risk associated with fire hazards during the construction period to a less than significant level.

Mitigation Measure HAZ-1: The following measures shall be implemented throughout the construction period to reduce the potential risk associated with fire hazards:

1. Parks staff shall comply with the County fire prevention practices.
2. Upon notification from the County Fire Department that a "Red Flag Warning - High Fire Danger Alert" exists for Marin County, Parks shall suspend any construction activities involving powered mechanical equipment and shall limit vehicle access to construction staging areas.
3. Parks staff shall hold fire prevention training session(s) for construction staff, contractors, and volunteers. The training shall describe the County's Fire Prevention Procedures and regulations for smoking and open fires on Parks land, including:
 - a. The prohibitions on smoking and open fire or flames while on Parks land;
 - b. The use of fire suppression equipment; and
 - c. The use of avoidance measures such as not allowing heated tools to contact ignitable fuels or not driving off road or in any area with tall grass.
4. Parks shall maintain fire suppression equipment, including water pumpers and fire extinguishers, on site and on trucks and tractors.
5. Parks shall maintain communication equipment, including cell phones and radios, on site during construction to allow for rapid contact of emergency responders.
6. Parks shall implement the following measures to reduce the risk of fire resulting from the use and storage of fuel:

- a. Refuel power equipment or tools in a cleared space;
 - b. Store fuel in a cleared space and, where possible, in the shade;
 - c. Turn off equipment while fueling;
 - d. Use a gas spout/funnel to avoid spills; and
 - e. Remove or dry any spilled fuel prior to starting equipment.
7. Parks shall implement the following measures if welding is necessary during construction:
- a. Suspend welding on hot dry days and when winds exceed five miles per hour;
 - b. Perform welding in the morning prior to 10:00 a.m.;
 - c. Remove grass within a 12-foot radius of the welding site;
 - d. Wet the ground and surrounding vegetation prior to welding and every 15 minutes thereafter;
 - e. Maintain a portable welding screen around the welder;
 - f. Keep a truck-mounted pumper at the welding site, with the pump engaged during welding; and
 - g. Staff an extra person on site with no other duty except to watch for fire and operate the pumper.

Monitoring Measure HAZ-1: The following monitoring measures shall be implemented throughout the construction period to ensure compliance with Mitigation Measure HAZ-1:

- 1. After receiving red-flag warnings, Parks staff shall verify that the bike park supervisor has suspended the use of heavy equipment.
- 2. Prior to the start of construction, Parks staff shall verify that construction staff held fire prevention training session.
- 3. Parks shall verify the implementation of the various fire safety mitigation measures.

10. NOISE. *Would the proposal result in:*

<p>a) Substantial increases in existing ambient noise levels? (source #(s): 1, 2)</p>	<p>Significant Impact</p>	<p>Potentially Significant Unless Mitigated</p>	<p>Less Than Significant Impact</p>	<p>Not Applicable</p>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The use of mechanical equipment, such as a tractor or chainsaw, would result in moderate short-term increases in noise levels during the construction period. These activities would occur over the approximate four-month period of construction, taking place in the spring, summer and/or early fall. Mechanical equipment such as backhoes, mini excavators, dozers, skid steer, skid loaders, and roller compactors would be used during the initial grading, while hand tools such as shovels, McLeod's, and landscaping rakes would be used for the fine tuning and finish shaping of the trails and riding features.

The bike park is in an undeveloped area of the County with the closest sensitive receptor located at the Burdell School property (as shown in Figure 2, directly across from the Stafford Lake County Park main entrance), approximately 1,000 feet northeast of the closest portion of the project boundary. The proposed bike park would be located on the south side of a hill that blocks the direct line of sight from the majority of the project area to this nearest sensitive receptor.

Typical maximum noise level generated by the type of equipment expected to be used on the proposed project site could range up to 86 dBA L_{max} at 50 feet from the operating equipment. Distance attenuation would reduce these noise levels to below 60 dBA L_{max} at 1,000 feet. Intervening terrain would be expected to reduce noise levels by an additional 10 dBA. These noise levels, especially when averaged over 24-hours, would not result in a perceptible increase over existing noise levels at the nearest sensitive receptor. Therefore, because of the distance to the nearest sensitive receptor, intervening terrain features, the short duration of the construction period, and the relatively small size of the mechanical equipment, the noise associated with construction would not be significant.

Use of the bike park would also not result in an increase in noise levels. Maintenance activities would include use of manual and power hand tools and, when necessary, specialized trail construction/maintenance machinery. However, operation of noise-generating equipment during these times would be short in duration. In addition, these noise sources are similar to what is experienced with the park's existing maintenance activities.

As noted in the project description, the bike park would be used for special bicycling-related public and private events. These events could range from small groups (1-10 people) to large-scale events with as many as 1,000 participants and spectators. The largest events would occur 1-2 times per year. It should be noted that Stafford Lake County Park currently hosts large-scale events, including music concerts and festivals, drawing as many as 5,000 people. Events held at the proposed bike park would generate a significant number of vehicle trips 1-2 times per year. However, the vehicle trips would not exceed those generated during the largest events currently held at Stafford Lake County Park and would therefore not result in a substantial increase in existing ambient noise levels.

b) Exposure of people to significant noise levels, or conflicts with adopted noise policies or standards? (source #(s): 1, 2)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As described in Section IV.10(a), operational noise associated with implementation of the proposed project (including traffic, parking lot activities, participant and spectator noise, and maintenance noise sources) would be similar to existing noise levels in the project vicinity. The proposed project is consistent with the existing land use designation. Therefore, project operational noise levels would not exceed the County's land use acceptable noise standards of the Noise Element of the Countywide Plan. Therefore, the proposed project would not expose people to significant noise levels or conflict with adopted noise policies or standards.

11. PUBLIC SERVICES. *Would the proposal have an effect upon, or result in a need for new or altered government service in any of the following areas:*

a) Fire protection? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site and immediate vicinity are served by the Marin County Fire Department. The site is also located within the Novato Fire Protection District. The nearest fire station to the project is the Novato Fire District's Station 63, located at 65 San Ramon Way, approximately 2 1/2 miles east of the proposed bike park. Because the proposed bike park would be a recreational facility, and would not include housing units or other structures, the demand for fire protection services would not increase with development of the proposed project. In addition, the bike park would be located within an existing County Park, which is clearly marked to aid in access and timely response for medical emergencies. Therefore, the project would not affect fire services in the area or result in the need for additional or altered fire protection facilities.

b) Police protection? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Marin County Sheriff's Department currently provides police protection services to the site and vicinity. Parks Rangers would be responsible for enforcement of bike park rules and regulations. Public use of the bike park is not expected to generate a significant increase in calls for police services and would not generate the need for additional officers or equipment. Therefore, the project would not affect police services in the area or result in the need for additional or altered police protection facilities.

c) Schools? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project does not include housing units or other development that would increase the number of students enrolled in schools within the project area. Therefore, the proposed project would not result in an increase in demand for school services or result in the need for additional or altered school facilities.

d) Maintenance of public facilities, including roads? (source #(s):)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project would not include or require expansion of roads, flood control, or other public works facilities. The proposed project would require maintenance of proposed bike park facilities, including dirt features such as trails, jumps, lines, pump tracks and trails, as well as other amenities such as signs, bridges, wooden structures, and site drainage and sediment control features. Park staff would perform the daily trash pick-up and general park inspection. Parks would explore using volunteers and/or hiring a part time contractor to provide regular, ongoing maintenance of the bike park according to the maintenance protocol. The County would oversee and manage volunteer efforts to ensure the park is properly maintained. The proposed bike park would not represent a substantial increase in maintenance responsibilities due to the use of volunteers. Therefore, the project would not result in an increase in the demand for public facilities, nor would it have a significant impact on the maintenance of existing public facilities, including roads.

e) Other governmental services? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The small-scale nature of the proposed project would not result any significant effects on other governmental services.

12. UTILITIES AND SERVICE SYSTEMS. *Would the proposal result in a need for new systems, or substantial alterations to the following utilities:*

a) Power or natural gas? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As outlined in the project description, underground power may be installed to the central staging area and to the gravity trail start area to accommodate electrical needs during events, such as timing and PA systems. The bike park would not have lighting. The proposed underground power would be connected existing electrical facilities serving the Stafford Lake County Park. The amount of power required to serve the proposed project would be minimal. No natural gas would be required or provided at the project site. Therefore, impacts to power and natural gas facilities would be less than significant.

b) Communications systems? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would not result in an increase in demand for communication systems, as no communication systems would be provided as part of the project. Therefore, communications systems would not be affected by development of the proposed project.

c) Local or regional water treatment or distribution facilities? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The County will require the use of potable water for construction, maintenance, and operation of the bike park. Water for the proposed project would be provided by existing public water supply infrastructure that currently exists within Stafford Lake County Park. Water demand would be slightly increased over the existing level of demand due to the proposed bike park facilities. However, the increase in demand would not be significant and would not affect local or regional water distribution facilities. The proposed bike park would have one ADA accessible portable restroom located at the bike park staging area closest to the main entrance of the bike park. The County has a contract to pump out the other portable(s) in the park, and this facility would be added to that contract. Therefore, local and regional water treatment facilities would not be affected by development of the proposed project.

d) Sewer or septic tanks? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As described above, the park would have one ADA accessible portable restroom located at the bike park staging area closest to the main entrance of the bike park. The County has a contract to pump out the other portable(s) in the park, and this facility would be added to that contract. No other sewage disposal facilities would be provided at the project site. Therefore, sewer and septic systems would not be affected by development of the proposed project.

e) Storm water drainage? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would not result in significant changes to stormwater drainage. It does not include any paving or substantial amounts of other impervious surfaces. As previously noted, the proposed project would include design features such as installation of wood chip infiltration areas along trail alignments, construction of bioswales and bioberms with wood shred infiltration areas, installation of rails and abutments on trail bridges to protect the channel, and placement of rip-rap where the channel flow exits the culvert to slow stormwater runoff. With implementation of these improvement measures, the proposed project would not result in an increase in stormwater runoff, erosion or sedimentation on- or off-site. Therefore, this impact is less than significant. As described in Section IV.4, Water, the proposed project has been designed to avoid affecting the hydrology of the project site. Furthermore, implementation of Mitigation Measure HYDRO-1 would ensure that potential impacts associated with storm drainage are reduced to a less than significant level.

f) Solid waste disposal? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project could generate limited quantities of solid waste associated with use of the bike park. The proposed project would include trashcans and recycling receptacles to collect solid waste. Because the amount of solid waste generated by the proposed project would be minimal relative to the amount of solid waste generated currently in Stafford Lake County Park, solid waste disposal facilities would not be affected by development of the proposed project.

13. AESTHETICS/VISUAL RESOURCES. *Would the proposal:*

a) Substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards? (source #(s): 1)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As described in Section IV.1(a), Land Use, the Marin Countywide Plan includes several policies that protect visual resources. Generally, these policies require the protection of views of ridgelines,

greenbelts, hillsides, water, trees, and other natural areas. None of the roads or highways within the vicinity of the site are designated as a scenic highway.

The proposed bike park would be located in an area of Stafford Lake County Park that is behind a knoll and visually screened from Novato Boulevard thereby retaining existing views of the County Park from the roadway. Trail alignments within the bike park would generally follow natural contours, thereby preserving the existing topography of the project site. Trail construction would require the removal of some existing vegetation, but the larger more visible trees within the most western area of the project site and the vegetation associated with the existing drainage would be retained. Fencing and other bike park amenities (i.e., shade structures, benches) would be: constructed of natural materials designed to blend into the surroundings, generally low in height; and of sufficient distance from public view areas so as to not be visible. Proposed signage would be consistent with Marin County Parks' design guidelines and similar in appearance to signage throughout Stafford Lake County Park. Grading and bike park improvements would be confined to the area of the proposed bike park and would not extend into other areas of the county park.

Therefore, for the reasons cited, the proposed project would not reduce, obstruct, or degrade a scenic vista open to the public or a scenic highway, conflict with adopted aesthetic or visual policies and standards, or otherwise degrade the visual quality or character of the site and surroundings.

b) Have a demonstrable negative aesthetic effect by causing a substantial alteration of the existing visual resources including, but not necessarily limited to: 1) an abrupt transition in land use; 2) disharmony with adjacent uses because of height, bulk or massing of structures; or 3) cast of a substantial amount of light, glare, or shadow? (source #(s): 1)	Significant Impact <input type="checkbox"/>	Potentially Significant Unless Mitigated <input type="checkbox"/>	Less Than Significant Impact <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
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As described in Section IV.13(a) above, the proposed bike park would be generally consistent with the visual landscape of the area and would not result in a substantial or adverse change to the visual quality or character of the site and surroundings. The proposed bike park consists of an improved facility within an existing County park that currently provides opportunities for active recreation (i.e., barbecues, picnic areas, volleyball, etc). As such, the proposed bike park would not result in an abrupt transition in land use. As described above, structures associated with the proposed project (i.e., fencing, shade structures, benches) would be: constructed of natural materials designed to blend into the surroundings, generally low in height; and of sufficient distance from public view areas so as to not be visible. Therefore, the proposed project would not result in height, bulk, or massing that would create any disharmony with the surrounding area or cast any light, create glare, or result in any shadows. No lighting would be installed as part of the proposed project and no glare-inducing materials (i.e., glass, metal) would be used in proposed bike park improvements. Therefore, the proposed project would not have a demonstrable negative aesthetic impact resulting from substantial alteration of existing visual resources.

14. CULTURAL RESOURCES. *Would the proposal:*

a) Disturb paleontological, archaeological, or historical sites, objects, or structures? (source #(s): 15)	Significant Impact <input type="checkbox"/>	Potentially Significant Unless Mitigated <input checked="" type="checkbox"/>	Less Than Significant Impact <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
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A cultural resources study was conducted for the proposed project (LSA 2011), which included a records search of the California Historical Resources Information System (CHRIS), literature review, field survey and coordination with the Native American Heritage Commission (NAHC) and Marin County Historical Society. The background research identified a previously recorded archaeological site, CA-MRN-528, within the project area. However, the project area has been disturbed (i.e., annual disking, seeding, mowing, and baling) over the years and field surveys conducted for the cultural resources study did not identify any cultural resources within the project area. The local chert identified within the project area exhibits fractures that resemble scarring that occurs when lithic material is crushed, dragged or displaced by mechanical equipment such as the agricultural machinery used in the project area.

Due to the presence of a previously recorded archaeological site and the project area's proximity to the creek, the project area is considered sensitive for archaeological deposits. Ground disturbance associated with grading of the project area and construction of bike park improvements could affect subsurface deposits associated with CA-MRN-528, as well as previously unidentified prehistoric and historical resources and human remains in the project area. Implementation of the following mitigation measures would reduce potential impacts to a less than significant level:

Mitigation Measure CULT-1: An archaeologist shall monitor ground-disturbing activities within 25 feet of the recorded boundary of CA-MRN-528 within the project area. The monitoring is intended to identify and avoid (or minimize) potential impacts to subsurface deposits associated with CA-MRN-528 should they be present in the project area.

Monitoring Measure CULT-1: Parks shall verify that the above measure is implemented throughout the construction period during routine field inspections.

Mitigation Measure CULT-2: If archaeological deposits are encountered during monitoring or construction of the project, these deposits shall be avoided by project activities. If avoidance is not possible, then the deposits shall be evaluated by a qualified archaeologist to determine if they meet the CEQA definition of a historical or unique archaeological resource. If the deposits do so qualify, their disturbance shall be mitigated through implementation of an archaeological data recovery plan in accordance with CEQA Guidelines Section 15126.4(b)(3)(C). Native American tribal organizations shall be consulted during the evaluation and mitigation process. If the deposits do not qualify as historical or unique archaeological resources, then no further study of the deposits is necessary (but monitoring shall continue for the remaining ground disturbance). Project personnel shall not collect or move any archaeological materials. Fill soils used for construction shall not contain archaeological materials.

Monitoring Measure CULT-2: Parks shall verify that the above measure is implemented throughout the construction period.

Mitigation Measure CULT-3: If human remains are encountered during monitoring or during the non-monitored portion of the project, the project shall comply with the provisions of California Health and Safety Code Section 7070.5 regarding the involvement of the Marin County Coroner, the notification of the NAHC, and consultation with the Most Likely Descendant. Project personnel shall not collect or move any human remains or associated materials.

Monitoring Measure CULT-3: Parks shall verify that the above measure is implemented throughout the construction period.

b) Have the potential to cause a physical change which would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area? (source #(s): 15)	Significant Impact <input type="checkbox"/>	Potentially Significant Unless Mitigated <input type="checkbox"/>	Less Than Significant Impact <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
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The subject property consists of undeveloped land within the existing Stafford Lake County Park. No historic buildings or unique ethnic or cultural facilities are located on the project site. Therefore, the proposed project would not cause a physical change that would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area.

15. SOCIAL AND ECONOMIC EFFECTS. *Would the proposal result in:*

Any physical changes which can be traced through a chain of cause and effect to social or economic impacts. (source #(s): 1)	Significant Impact <input type="checkbox"/>	Potentially Significant Unless Mitigated <input type="checkbox"/>	Less Than Significant Impact <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
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The proposed project would not cause direct or indirect physical changes that would result in social or economic effects.

V. MANDATORY FINDINGS OF SIGNIFICANCE. Pursuant to Section 15065 of the State EIR Guidelines, a project shall be found to have a significant effect on the environment if any of the following are true:

- | | | | |
|--|--------------------------|-------------------------------------|--------------------------|
| | Yes | No | Maybe |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
- 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?**

As described in Section IV.7 of this Initial Study, mitigation measures are included in the proposed project to reduce potential impacts to fish, wildlife and plant species and habitat to a less than significant level. The proposed project would not result in a reduced number or restricted range of any special-status plant or animal. As discussed in Section IV.14, the project would not result in impacts to examples of California history or prehistory.

- | | | | |
|--|--------------------------|-------------------------------------|--------------------------|
| | Yes | No | Maybe |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
- b) **Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?**

Based on the analysis provided in Section IV of this Initial Study, the project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals since all potential impacts would be mitigated to a less than significant level.

- | | | | |
|--|--------------------------|-------------------------------------|--------------------------|
| | Yes | No | Maybe |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
- c) **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).**

As described in Section IV of this Initial Study, the proposed project would not have the potential to cause cumulative impacts because all potential impacts from the proposed project would be reduced to a less than significant level. In addition, the cumulative impacts associated with construction of the bike park, along with possible impacts that may occur with construction of bike skill areas within existing open space or along existing trails would be reduced because users would be redirected from these areas to the bike park. For these reasons, the proposed project would not make a cumulatively considerable contribution towards a cumulative impact related to wildfire hazards, erosion, water quality, or biological or cultural impacts because impacts are mitigated and would potentially be reduced with implementation of the proposed project. Additionally, the proposed project would not generate a significant amount of greenhouse gas emissions and

would therefore not result in a cumulatively considerable impact to global climate change.

- d) **Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Yes

No

Maybe

As described in Section IV of this Initial Study, any potential environmental impacts from the proposed project would be reduced to a less than significant level with the implementation of the recommended mitigation measures. With implementation of measures both incorporated into the project design and recommended as mitigations to reduce the risks associated with geologic and wildfire hazards, the proposed project would not result in substantial adverse effects on human beings.

VI. PROJECT SPONSOR'S INCORPORATION OF MITIGATION MEASURES:

Acting on behalf of the project sponsor or the authorized agent of the project sponsor, I (undersigned) have reviewed the Initial Study for the Stafford Lake Bike Park and have particularly reviewed the mitigation measures and monitoring programs identified herein. I accept the findings of the Initial Study, including the recommended mitigation measures, and hereby agree to modify the proposed project applications now on file with Marin County to include and incorporate all mitigation measures and monitoring programs set out in this Initial Study.

(Project Sponsor's Name or Representative)

Date

(Project Sponsor's Name or Representative)

Date

VII. DETERMINATION: (Completed by Marin County Environmental Coordinator). Pursuant to Sections 15081 and 15070 of the State Guidelines, the forgoing Initial Study evaluation, and the entire administrative record for the project:

- I find that the proposed project WILL 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 the mitigation measures described on an attached sheet have been added to the project. A 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.

Signature

Date

Printed Name

For

ATTACHMENT 1: DOCUMENTS INCORPORATED BY REFERENCE

The following is a list of relevant information sources, which Parks has incorporated by reference into this Initial Study pursuant to Section 15150 of the State CEQA Guidelines. The number assigned to each information source corresponds to the number listed in parenthesis following the topical question. These documents are both a matter of public record and available for public inspection at Marin County Parks, 3501 Civic Center Drive, Room 260, San Rafael.

1. County of Marin, Community Development Agency. *Marin Countywide Plan*. 2007.
2. County of Marin. Municipal Code Marin County. Undated.
3. Marin County, Department of Parks and Open Space. *Strategic Plan*. June 2008.
4. County of Marin. *Marin Countywide Plan Update Final Environmental Impact Report*, November 2007.
5. Hilride Progression Development Group, LLC, 2010. *Marin County Department of Parks and Open Space Stafford Lake Bike Park Feasibility Study*. September 13.
6. Miller Pacific Engineering Group, 2011. *Geologic and Geotechnical Feasibility Study*. Prepared for the Marin County Parks Department. June 23.
7. Marin County Department of Public Works, 2009. Marin County Watershed Program website. Available online at: http://marinwatersheds.org/novato_creek.html, (accessed July 20, 2011).
8. Federal Emergency Management Agency, 2009. Marin County Unincorporated and Incorporated Areas, Map ID 06041C0257D. FEMA Map Service Center. 4 May. Available online at: <http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=84820391&IFIT=1>, (accessed July 20, 2011).
9. TJKM, 2011. *Traffic Impact Study for Proposed Bike Park in Lafayette Community Park*. March 28.
10. Transportation Authority of Marin, *Marin Congestion Management Program 2009 Update*, September 11, 2009.
11. California Natural Diversity Data Base (CNDDB). 2011. Data Base Query of Bolinas, Double Point, Inverness, Novato, Petaluma, Petaluma River, Point Reyes NE, San Geronimo, and San Rafael USGS quadrangles. California Department of Fish and Game, Sacramento. CA.
12. CAL FIRE. Maps of Fire Hazard Severity Zones in the State Responsibility Area of California, Marin County. Adopted November 7, 2007.
13. CAL FIRE. Maps of Fire Hazard Severity Zones in the Local Responsibility Area of California, Marin County. Recommended September 25, 2007.
14. Novato Fire Protection District, 2011. Novato Fire Protection District website. Available online at: <http://www.novatofire.org/> (accessed July 20, 2011).
15. LSA Associates, Inc., 2011. Cultural Resources Study for the Stafford Lake Bike Park, Novato, Marin County, California. June 23.

16. Marin County, Community Development Agency. *Geology, Mineral Resources and Hazardous Materials Technical Background Report*. Updated November 2005.
17. Marin County Open Space District. Short Term Use Permit Special Conditions, Fire Prevention Procedures.
18. United States Department of Agriculture, 1985. Marin County Soils Survey.
19. U.S. EPA *National Ambient Air Quality Standards*, see <http://www.epa.gov/air/criteria.html>. Last updated February 10, 2010.
20. Bay Area Air Quality Management District. *BAAQMD CEQA Guidelines*. May 2011.
21. Bay Area Air Quality Management District. *Bay Area 2005 Ozone Strategy*. Final adopted January 4, 2006.
22. Bay Area Air Quality Management District. *Particulate Matter Implementation Schedule*. November 9, 2005.
23. Bay Area Air Quality Management District. *Ambient Air Quality Standards & Bay Area Attainment Status*. http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. Accessed July 25, 2011.
24. Bay Area Air Quality Management District. *Air Quality Plans – Planning for the Future*. <http://hank.baaqmd.gov/pln/plans/index.htm>. Last updated January 4, 2007.
25. W-Trans, 2011. LOS Analysis of Novato Boulevard/San Marin Drive-Sutro Avenue. September 15.

ATTACHMENT 2: DEFINITIONS

The following further describe proposed bike park facilities:

Jumps

Anatomy of a Dirt Jump- A dirt jump is sculpted out of dirt and consists of a take off area and a landing area. Dirt jumps in general can be built in several different styles including gapped or coffin jumps, tabletop jumps, camel backed jumps, and roller style jumps.

Dirt Jump Start Hill- A start hill provides gravity, speed and momentum for riders dropping into a jump sequence. Generally, people like to congregate on the top of the start hills to rest, watch other riders, and socialize. Designing the start hill to be large enough to accommodate this makes for a more positive experience. The start hill should also be designed to be able to easily climb and ride back to the top of it. If it is too steep, it will be difficult to climb and the amount of user wear and erosion will be increased. A start hill might range in size from (5-15ft.) depending upon the style of the jump line.

Rhythm Section- A dirt jump line might consist of a series or sequence of jumps that allow riders to maintain speed and momentum from one jump to the next one without having to pedal. This is called a rhythm section. The experience of rhythm jumping is the highest level of dirt jumping and feels the best.

Return Trail- A return trail provides riders with the most direct route back to the start of the line or trail. Ideally, riders are able to watch other riders and scout out their lines as they return to the start area.

Jump Line- Refers to a series of jumps that can be ridden in sequence.

Jump Trail- Refers to an extended jump line that allows for a longer experience.

Jump Area- An area that has been intensively developed with many take offs and landings merging to provide line variations and opportunities to transfer from line to another.

Flow Trails- A type of trail that incorporates rollers, roller style tabletop and camel back jumps, big 90° and 180° berm turns.

Gap Jumps- A gap jump consists of a take off and a landing with a gap in between. This type of jump is generally the most desired by hard core dirt jumpers because of the aesthetic, the minimal amount of soil required to construct gap style jumps, and the filtering effect these type of jumps have (as they are often unrideable by less skilled riders). Hard core riders have generally spent large amounts of time building, maintaining and riding gap style jumps. This type of jump requires the highest skill level to ride because of the potential consequences of not making it successfully over the gap. Typically, injury rates for gap jumps are higher than for other style jumps and they generally are less durable and erosion resistant because they have more surface area exposed to the elements.

Tabletop Jumps- A solid jump feature with no gap in between the take off and the landing lips. This type of jump requires a lower level of skill and lower consequences as riders are able to ride over the entire jump. Riders are able to slowly increase speed until they successfully transition from the take off to the landing.

Progressive Jump Pack- A series of small, medium, and large jumps stacked next to each other to provide progressively larger jump options.

Step Up Jumps- A jump where the landing is higher than the take off.

Step Down Jumps- A jump where the landing is lower than the take off.

Hip Jumps- A jump where the angle of the landing is offset from the take off.

Drop Features

Drop- A drop is a feature that riders roll off and land on a steep transition.

Drop Progression- A series of drops increasing in size that provides a progressively more challenging experience.

Turns

Flat Turn- A turn with no built up berm or lip around it.

90° Berm Turn- A turn with a built up berm wall that allows rider to turn 90°.

180° Berm Turn- A turn with a built up berm wall that allows riders to turn 180°.

Pump Tracks

Anatomy of a Pump Track- A basic pump track generally consists of a small start hill, and a series of roller pumps, jumps, and berm turns that create a circuit. The tracks can generally be ridden in both directions and might have multiple line options, multiple lanes or both to provide lots of variation in a compact riding area.

Pump Track Start Hill- A pump track start hill is generally less than (5) feet, as the speed of the pump track is limited by the ability to generate speed through pumping the terrain. The start hill should be large enough to accommodate several riders at the same time as riders will tend to socialize, rest and queue up on the start hill area. The start hill area should also provide an area for interpretive signage that explains to riders how to properly ride the track.

Pump Track Rollers- A roller is a mound of dirt that is smoothed and shaped to create a rounded roller/pump. Riders are able to generate forward momentum by pumping over the roller features taking advantage of “the force of angular momentum”. Smaller rollers might be (6-12”) and larger rollers close to (3-4’) in height. Spacing between rollers can vary from (10-20’) depending upon the style of the track. Generally, a 1’ high roller allows a rider to roll 10’ forward.

Pump Track Jumps- A pump track jump is generally a bit smaller than a dirt jump as the speed of a pump track is generally slower than a jump line. Pump track jumps are generally roller style tabletop or camel back style jumps that allow riders to either jump or pump over them providing more options.

Pump Track Berms- A pump track berm can vary in radius, steepness, and height depending on the style of the track. Generally, beginner pump track berms are wider diameter and less steep than the berms in more advanced tracks. As the tracks get more advanced, they get faster and the berms become steeper and tighter allowing riders to pump through them and generate even more speed and power. Wider diameter berms can be designed with high centers to provide additional pumping opportunities and speed. Roll in roll out berms allow riders to ride the berm as a turn or roll the berm as a roller.

Types of Pump Tracks- Pump tracks can be designed to accommodate a wide range of riders and skill levels from beginners to pros. They can be designed for side-by-side competition and linear racing or they can be designed more like dirt skate parks with transition and multiple line options.

Beginner Level Pump Tracks- Beginner pumps tracks might consists of smaller pumps, spaced wider apart with wider diameter turns, fewer line options and a more linear feel to accommodate beginner level riders.

Intermediate Level Pump Tracks- As riders develop better pump track skills the track design can be varied to include bigger pumps, bigger jumps and tighter berms that produce more speed and air and require a higher level of skill.

Advanced Level Pump Tracks- As riders develop better skills they are able to pump faster and more efficiently and they are able to generate more power, which allow for more complex moves such as hip jumps, gap jumps, wall rides, etc.

Pro Level Pump Tracks- Pro level pump tracks might have multiple line options, which require the ability to jump and pump in a tight rhythm. Many of the lines might not be accessible to less skilled riders as they are only ride able if the rider is able to generate enough speed and power to get “in the rhythm” over the roller and jump features.

Technical Features (TF)

Technical Features (TF)- A technical feature is a specific type of feature built for a specific type of riding experience, requiring a specific type of riding skill.

Technical Trail Feature (TTF)- A technical trail feature is a feature that is built at the main line or as an optional line along a trail that provides a specific riding experience and demands a specific type of riding skill to complete it.

Wall Ride- A wall ride refers to a constructed wall that is positioned at 75° or so and allows rider to either smoothly transition or jump onto the wall and jump back off.

Radar Dish- A radar dish refers to a wall ride that is positioned at less of an angle and is curved providing a more dynamic riding surface and the ability to pump off it.

Elevated Trails (North Shore Trails)- Trails that are elevated above the surface of the ground and provide a technically challenging experience are considered elevated trails, north shore style trails, or technical trails interchangeably.

Anatomy of an Elevated Trail- Elevated trails generally consist of an entry that takes the rider from the dirt surface onto the structure, an extended elevated surface and an exit.

Log Rides- A log ride is a technical trail feature that uses a natural timber or log as the riding surface to provide a challenging riding experience.

Rock Lines- A rock line is a technical trail feature that uses natural rock as the riding surface.

ATTACHMENT 3: LOS WORKSHEETS

PM Peak Hour - Existing Conditions
North Redwood Redevelopment Traffic Study
City of Novato

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Novato Boulevard/San Marin Drive/Sutro Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
Loss Time (sec): 0 Average Delay (sec/veh): 18.1
Optimal Cycle: 0 Level Of Service: C

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 Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 1 0 1 0 1 1 0 1 0 0 1 0

Volume Module: >> Count Date: 6 Jun 2001 << 4:30-5:30
Base Vol: 45 154 59 132 255 81 66 62 26 98 120 161
Growth Adj: 1.10
Initial Bse: 50 169 65 145 281 89 73 68 29 108 132 177
Added Vol: 0
Bike Park: 0
Initial Fut: 50 169 65 145 281 89 73 68 29 108 132 177
User Adj: 1.00
PHF Adj: 0.98 0.98 0.98 0.92 0.92 0.92 0.88 0.88 0.88 0.92 0.92 0.92
PHF Volume: 51 173 66 158 305 97 83 78 33 117 143 193
Reduct Vol: 0
Reduced Vol: 51 173 66 158 305 97 83 78 33 117 143 193
PCE Adj: 1.00
MLF Adj: 1.00
FinalVolume: 51 173 66 158 305 97 83 78 33 117 143 193

Saturation Flow Module:
Adjustment: 1.00
Lanes: 1.00 0.72 0.28 1.00 1.00 1.00 1.00 1.41 0.59 1.00 0.43 0.57
Final Sat.: 420 335 128 427 458 495 370 554 240 437 212 285

Capacity Analysis Module:
Vol/Sat: 0.12 0.52 0.52 0.37 0.66 0.20 0.22 0.14 0.14 0.27 0.68 0.68
Crit Moves: **** *
Delay/Veh: 11.9 17.3 17.3 15.4 23.6 11.3 14.2 12.4 12.1 13.4 22.3 22.3
Delay 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
AdjDel/Veh: 11.9 17.3 17.3 15.4 23.6 11.3 14.2 12.4 12.1 13.4 22.3 22.3
LOS by Move: B C C C C B B B B B C C
ApproachDel: 16.3 19.1 13.1 20.0
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 16.3 19.1 13.1 20.0
LOS by Appr: C C B C
AllWayAvgQ: 0.1 0.9 0.9 0.5 1.7 0.2 0.2 0.1 0.1 0.3 1.7 1.7

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

PM Peak Hour - Existing Conditions
North Redwood Redevelopment Traffic Study
City of Novato

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Novato Boulevard/San Marin Drive/Sutro Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.743
Loss Time (sec): 0 Average Delay (sec/veh): 19.8
Optimal Cycle: 0 Level Of Service: C

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 Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 1 0 1 0 1 1 0 1 0 0 1 0

Volume Module: >> Count Date: 6 Jun 2001 << 4:30-5:30
Base Vol: 45 154 59 132 255 81 66 62 26 98 120 161
Growth Adj: 1.10
Initial Bse: 50 169 65 145 281 89 73 68 29 108 132 177
Added Vol: 0
Bike Park: 0 0 0 0 0 0 0 0 25 0 0 25 0
Initial Fut: 50 169 65 145 281 89 73 93 29 108 157 177
User Adj: 1.00
PHF Adj: 0.98 0.98 0.98 0.92 0.92 0.92 0.88 0.88 0.88 0.92 0.92 0.92
PHF Volume: 51 173 66 158 305 97 83 107 33 117 171 193
Reduct Vol: 0
Reduced Vol: 51 173 66 158 305 97 83 107 33 117 171 193
PCE Adj: 1.00
MLF Adj: 1.00
FinalVolume: 51 173 66 158 305 97 83 107 33 117 171 193

Saturation Flow Module:
Adjustment: 1.00
Lanes: 1.00 0.72 0.28 1.00 1.00 1.00 1.00 1.53 0.47 1.00 0.47 0.53
Final Sat.: 408 325 125 415 445 477 364 592 186 431 230 259

Capacity Analysis Module:
Vol/Sat: 0.12 0.53 0.53 0.38 0.69 0.20 0.23 0.18 0.18 0.27 0.74 0.74
Crit Moves: **** *
Delay/Veh: 12.2 18.2 18.2 16.0 25.3 11.7 14.5 13.1 12.8 13.7 26.9 26.9
Delay 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
AdjDel/Veh: 12.2 18.2 18.2 16.0 25.3 11.7 14.5 13.1 12.8 13.7 26.9 26.9
LOS by Move: B C C C D B B B B B D D
ApproachDel: 17.1 20.3 13.6 23.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 17.1 20.3 13.6 23.7
LOS by Appr: C C B C
AllWayAvgQ: 0.1 1.0 1.0 0.6 1.8 0.2 0.3 0.2 0.2 0.3 2.3 2.3

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

PM Peak Hour - Buildout Conditions (Scenario 2)
Commons at Mt. Burdell Cumulative Traffic Projections
City of Novato

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Novato Boulevard/San Marin Drive/Sutro Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 0 Average Delay (sec/veh): 25.0
Optimal Cycle: 0 Level Of Service: C

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 Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 1 0 1 0 0 1 0

Volume Module: >> Count Date: 6 Jun 2001 << 4:30-5:30
Base Vol: 45 154 59 132 255 81 66 62 26 98 120 161
Growth Adj: 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10
Initial Bse: 50 169 65 145 281 89 73 68 29 108 132 177
Added Vol: 0 5 0 54 9 15 11 14 0 0 19 53
Bike Park: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 50 174 65 199 290 104 84 82 29 108 151 230
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: 0.98 0.98 0.98 0.92 0.92 0.92 0.88 0.88 0.88 0.92 0.92 0.92
PHF Volume: 51 179 66 216 314 113 96 94 33 117 164 250
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 179 66 216 314 113 96 94 33 117 164 250
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
FinalVolume: 51 179 66 216 314 113 96 94 33 117 164 250

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.73 0.27 1.00 1.00 1.00 1.00 1.48 0.52 1.00 0.40 0.60
Final Sat.: 390 313 116 404 430 460 345 542 193 418 190 289

Capacity Analysis Module:
Vol/Sat: 0.13 0.57 0.57 0.54 0.73 0.25 0.28 0.17 0.17 0.28 0.87 0.87
Crit Moves: **** **

Delay/Veh:	12.7	20.2	20.2	20.7	29.4	12.6	15.9	13.6	13.3	14.2	40.3	40.3
Delay 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
AdjDel/Veh:	12.7	20.2	20.2	20.7	29.4	12.6	15.9	13.6	13.3	14.2	40.3	40.3
LOS by Move:	B	C	C	D	B	C	B	B	B	E	E	E
ApproachDel:	18.9	23.5	14.6	34.6								
Delay Adj:	1.00	1.00	1.00	1.00								
ApprAdjDel:	18.9	23.5	14.6	34.6								
LOS by Appr:	C	C	B	D								
AllWayAvgQ:	0.1	1.1	1.1	1.0	2.2	0.3	0.3	0.2	0.2	0.4	4.0	4.0

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

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PM Peak Hour - Buildout Conditions (Scenario 2)
Commons at Mt. Burdell Cumulative Traffic Projections
City of Novato

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Novato Boulevard/San Marin Drive/Sutro Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.937
Loss Time (sec): 0 Average Delay (sec/veh): 29.3
Optimal Cycle: 0 Level Of Service: D

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 Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 1 0 1 0 0 1 0

Volume Module: >> Count Date: 6 Jun 2001 << 4:30-5:30
Base Vol: 45 154 59 132 255 81 66 62 26 98 120 161
Growth Adj: 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10
Initial Bse: 50 169 65 145 281 89 73 68 29 108 132 177
Added Vol: 0 5 0 54 9 15 11 14 0 0 19 53
Bike Park: 0 0 0 0 0 0 0 25 0 0 25 0
Initial Fut: 50 174 65 199 290 104 84 107 29 108 176 230
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: 0.98 0.98 0.98 0.92 0.92 0.92 0.88 0.88 0.88 0.92 0.92 0.92
PHF Volume: 51 179 66 216 314 113 96 123 33 117 191 250
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 179 66 216 314 113 96 123 33 117 191 250
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
FinalVolume: 51 179 66 216 314 113 96 123 33 117 191 250

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.73 0.27 1.00 1.00 1.00 1.00 1.58 0.42 1.00 0.43 0.57
Final Sat.: 384 305 114 392 418 446 344 574 156 413 204 267

Capacity Analysis Module:
Vol/Sat: 0.13 0.58 0.58 0.55 0.75 0.25 0.28 0.21 0.21 0.28 0.94 0.94
Crit Moves: **** **

Delay/Veh:	13.0	21.3	21.3	21.8	31.9	13.0	16.2	14.4	14.1	14.4	53.7	53.7
Delay 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
AdjDel/Veh:	13.0	21.3	21.3	21.8	31.9	13.0	16.2	14.4	14.1	14.4	53.7	53.7
LOS by Move:	B	C	C	D	B	C	B	B	B	F	F	F
ApproachDel:	19.9	25.2	15.1	45.4								
Delay Adj:	1.00	1.00	1.00	1.00								
ApprAdjDel:	19.9	25.2	15.1	45.4								
LOS by Appr:	C	D	C	E								
AllWayAvgQ:	0.1	1.2	1.2	1.1	2.4	0.3	0.3	0.2	0.2	0.4	5.7	5.7

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

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